

PERCEPTIONS AND CONTRIBUTIONS OF LOCAL SOCIAL GROUPS IN THE MANAGEMENT OF SELECTED FORESTS IN AKWA IBOM STATE, NIGERIA

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| Article History | Abstract |
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| <p>Original Research Article</p> <p>Received: 03-03-2026</p> <p>Accepted: 01-04-2026</p> <p>Published: 12-04-2026</p> <p>Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.</p> <p>Citation: Mboutidem Ebong., King, B.I., Etim, T.C., Jones, G.M & Jimmy, U.J. (2026). PERCEPTIONS AND CONTRIBUTIONS OF LOCAL SOCIAL GROUPS IN THE MANAGEMENT OF SELECTED FORESTS IN AKWA IBOM STATE, NIGERIA. UKR Journal of Arts, Humanities and Social Sciences (UKRJAHS), 2(4), 61-72.</p> | <p><i>Despite the ecological significance of Akwa Ibom State's tropical rainforests and mangroves, statutory management frameworks have largely failed to stem rapid deforestation. This study investigates the "Perceptions and Contributions of Local Social Groups" across ten selected forest locations (including Stubbs Creek, Mbioso, and the Lower Imo River) to bridge the institutional gap between state policy and indigenous stewardship. Adopting a mixed-methods approach with a purposive sample of 300 participants from Traditional Councils, Youth Associations, and Women's Cooperatives, the research utilizes Political Ecology and the Theory of Access to diagnose the root causes of forest degradation. Findings reveal a profound "Specialization of Stewardship": Women demonstrate the highest environmental awareness (90%) through sustainable selective harvesting of Non-Timber Forest Products (NTFPs), while Traditional Councils provide moral authority via sacred groves, and Youth Groups provide the primary operational force for surveillance (85%). However, the study identifies a critical "Awareness-Exclusion Paradox", where high local awareness is neutralized by structural barriers, most notably the Land Use Act (86.7%), Patriarchal Land Tenure (4.55 mean score), and Elite Capture (65%). These factors drive a "liquidation mindset" among marginalized youth and a transition of elders from custodians to "land brokers." The study concludes that sustainable management requires a shift from top-down command-and-control to a Tripartite Co-Management Framework. By formalizing Community Land Trusts, integrating youth into digital maritime and forest surveillance, and empowering women in formal governance, the state can transform local groups from passive bystanders into active partners. This study provides the empirical basis for an inclusive "Blue-Green Economy" that aligns ancestral wisdom with modern geospatial intelligence to ensure the long-term survival of the Niger Delta's natural heritage.</i></p> <p>Keywords: Community-Based Forest Management (CBFM), Political Ecology, Akwa Ibom State, Elite Capture, Gendered Knowledge, Co-Management Framework, Niger Delta.</p> |

1. Introduction

The forests of Akwa Ibom State represent a critical segment of Nigeria's remaining tropical rainforest and mangrove ecosystems. These biomes are not merely collections of timber; they are "living pharmacies" and "supermarkets" for the rural populace, providing essential Non-Timber Forest Products (NTFPs) and maintaining local hydrological cycles (Bisong, 2021). Historically, the management of these resources was inextricably linked to the social fabric of the Ibibio, Annang, and Oro peoples.

Through local social groups—such as traditional councils, age grades, and women's cooperatives—forests were managed via a sophisticated system of "sacred groves" (*Akai*) and seasonal prohibitions (Udo, 2019).

However, the transition from traditional communal custody to statutory state control has created a complex management landscape. As modernization permeates rural communities, the influence of these social groups is being

tested. Understanding the current perceptions (how they value the forest) and contributions (what they actually do to protect it) of these groups is fundamental to ensuring that forest policy in Akwa Ibom is not just legally sound, but socially sustainable (Jacob et al., 2022). Despite decades of government-led conservation efforts, Akwa Ibom State continues to witness significant forest degradation. Research indicates that the state's forest cover is being decimated by agricultural expansion, illegal logging, and urban sprawl, with the Stubbs Creek Forest Reserve alone facing a high risk of total depletion within the next decade (Udofia et al., 2020; Abraham et al, 2022).

The core of this problem is the institutional decoupling of local social groups from formal management structures. When forestry laws are enacted without considering the perceptions of those who live at the forest fringe, several issues arise. Traditional authorities often find their roles usurped by state officials, leading to a breakdown in the "sacred" protection of groves (Oribhabor & Anyanwu, 2019). Government forest guards are often too few and under-equipped to monitor vast terrains, whereas local social groups (like youth associations) who possess the "eyes and ears" on the ground are rarely empowered to assist in the aspect of reportage of encroachment and others (Effiong, 2023). Without a platform for local groups to voice their needs, conservation policies often criminalize the very activities—such as sustainable foraging—that local communities rely on for survival.

Globally, the shift toward Community-Based Forest Management (CBFM) has proven successful in regions like Nepal and Mexico. In Nepal, the devolution of forest rights to local user groups led to a measurable increase in biomass and a reduction in poverty (Paudyal et al., 2017). Similarly, in Ghana, the integration of traditional taboos into formal "Community Resource Management Areas" (CREMAs) has helped bridge the gap between ancient beliefs and modern law (Acheampong et al., 2021).

Despite these global successes, a significant research and policy gap exists in the context of Akwa Ibom State: Most local studies focus on the physical extent of deforestation through GIS mapping, but they fail to investigate the psychological and social motivations of the groups living near these forests (Antia, 2024). While women are the primary collectors of forest resources, their specific management contributions and perceptions are frequently subsumed under general "community" headings, leaving their unique role undocumented (Ekpa & Akpabio, 2022; Osogi, et al, 2026; Abraham et al, 2024). There is a lack of a clear framework that outlines how the Akwa Ibom State Ministry of Environment can formally partner with informal social groups to create a "co-management" model.

This study is designed to bridge these divides by providing a granular analysis of how local social groups perceive their agency in forest management. By documenting the specific indigenous strategies used by women's groups, youth associations, and traditional councils, this research will move beyond the "top-down" narrative.

Specifically, it will provide the empirical data needed to advocate for a Co-Management Framework. This framework will demonstrate how local surveillance, traditional sanctions, and community-led afforestation can complement state laws. Ultimately, the study aims to transform local social groups from passive bystanders into recognized, active partners in the preservation of Akwa Ibom's natural heritage. The objectives of the study are:

- i. To evaluate the depth of environmental awareness and perceptions among diverse local social groups (traditional councils, youth, and women) regarding the ecological and socio-economic value of selected forests in Akwa Ibom State.
- ii. To document the specific indigenous forest management practices and surveillance contributions currently employed by these social groups to curb illegal logging and encroachment.
- iii. To analyze the influence of gender and age-grade structures on the effectiveness of communal forest governance, specifically focusing on the often-overlooked role of social groups in resource sustainability.
- iv. To identify the socio-institutional barriers (such as land tenure issues, lack of funding, or government exclusion) that hinder the full participation of local social groups in formal state forestry programs.
- v. To develop a strategic "Co-Management Framework" that integrates the cultural values of local groups with modern conservation policies to ensure the long-term survival of Akwa Ibom's forest reserves.

2.0 Literature Review

The forests of Akwa Ibom State represent a critical segment of Nigeria's remaining tropical rainforest and mangrove ecosystems. These biomes are "living pharmacies" and "supermarkets" for the rural populace, providing essential Non-Timber Forest Products (NTFPs) and maintaining local hydrological cycles (Bisong, 2021; Ebong et al, 2025; Jimmy et al, 2025). Historically, management was inextricably linked to the social fabric of the Ibibio, Annang, and Oro peoples. Through local social groups—such as traditional councils, age grades, and women's

cooperatives—forests were managed via a sophisticated system of "sacred groves" (*Akai*) and seasonal prohibitions (Udo, 2019; Abraham et al., 2022).

However, the transition to statutory state control has created a complex landscape. As modernization permeates rural communities, the influence of these groups is being tested. Understanding their current perceptions and contributions is fundamental to ensuring forest policy is socially sustainable (Jacob et al., 2022; Jimmy et al., 2025, Abraham et al., 2025).

Despite government-led efforts, Akwa Ibom continues to witness significant forest degradation. Research indicates cover is being decimated by agricultural expansion and illegal logging, with the Stubbs Creek Forest Reserve facing a high risk of total depletion within the next decade (Udofia et al., 2020).

The core problem is the institutional decoupling of local groups from formal structures. When forestry laws ignore the perceptions of fringe-dwellers, traditional authorities find their roles usurped, leading to a breakdown in "sacred" protection (Oribhabor & Anyanwu, 2019). Government guards are often under-equipped, whereas local youth associations—who possess the "eyes and ears" on the ground—are rarely empowered to assist in reportage (Effiong, 2023; Jimmy et al., 2025).

In Ibiono Ibom and Esit Eket, councils use the *Ekpe* society to enforce seasonal bans (Daniel et al., 2020; Ekpe, 2018). This mirrors global trends in India and Benin, where religious sanctions often outperform government policing (Parthasarathy, 2023; Sodhi et al., 2021). Their contribution is physical and direct. In Stubbs Creek, youth establish vigilante patrols against illegal charcoal burners (Effiong & Okon, 2023; Antai, 2018). In Ini LGA, they lead "enrichment planting" (Sampson et al., 2019). When empowered, illegal extraction drops significantly (Ojha et al., 2021); however, if excluded or if they perceive the state as corrupt, they may pivot to "guerrilla logging" (Bassey & Otu, 2021; Fearnside, 2023).

Women practice "passive management" through selective harvesting of *Afang* and medicinal herbs (Onyema et al., 2016; Jacob et al., 2021). In Mexico, women's cooperatives have proven more sustainable than male-led collectives (Bray et al., 2021). Their role as "informal monitors" is essential for higher carbon sequestration (Udofia et al., 2022; FAO, 2023).

A "Governance-Practice Gap" exists where the state focuses on revenue while local groups perform informal management. Patriarchal norms still restrict women from formal decision-making, ignoring their knowledge of soil fertility and biodiversity (Agarwal, 2021; Sunderland et al., 2024). Furthermore, a "generation gap" persists: elders

view the forest as a spiritual stabilizer, while unemployed youth may see it as "unlocked capital" (Udo et al., 2023).

Institutional obstacles, notably the Land Use Act of 1978, have centralized control and diminished local incentives for long-term conservation. This reflects the "reservation-exploitation" cycle seen in the Amazon and Southeast Asia (White & Martin, 2025; Cronkleton et al., 2023).

To resolve these failures, a strategic Co-Management Framework is required. Success stories in Nepal and the CREMA systems in Ghana prove that devolving rights to local users increases biomass and reduces poverty (Paudyal et al., 2017; Asare et al., 2022; Ukpong et al., 2025).

A model for Akwa Ibom must integrate the spiritual wisdom of traditional councils, the monitoring energy of youth, and the utilitarian knowledge of women. By securing land tenure and providing alternative livelihoods, the state can move from "uncoordinated conservation" to a robust, inclusive ecosystem.

2.1 Geographical Analysis of Selected Akwa Ibom State Forests

The geography and biodiversity of Akwa Ibom's forest landscapes are shaped by the state's position within the tropical rainforest belt of the Gulf of Guinea and its intricate Atlantic barrier island chain. These ecosystems represent a vital transition from saline mangrove swamps to high-canopy inland rainforests, each maintained by unique socio-ecological interactions and indigenous management systems.

1. Stubbs Creek Forest Reserve

The Stubbs Creek Forest Reserve, spanning approximately 22,600 hectares, represents the largest contiguous forest block in the state and occupies the coastal shoreline between the Qua Iboe River and the Cross River estuary. Its geography is a complex mosaic of freshwater terminal swamps and beach ridge barriers that provide a critical sanctuary for the endangered Sclater's guenon (*Cercopithecus sclateri*) and the African python. Dominated by hardy flora such as *Lophira alata* (Ironwood) and *Rhizophora racemosa*, the reserve is surrounded by the communities of Eket, Ibeno, and Esit Eket, specifically within settlements like Upenekang and Akpautong where local youth and traditional councils navigate the tensions of oil exploration and conservation.

2. Mbioso Forest Reserve

The Mbioso Forest Reserve, situated within the undulating north-central terrain of Itu and Ibiono Ibom, was historically designated as a massive area for industrial pulpwood to support regional paper manufacturing.

Covering an estimated 8,000 to 10,000 hectares, the area is characterized by fertile loamy soils and a high water table that supports a blend of exotic plantation species like *Gmelina arborea* and *Tectona grandis* (Teak) alongside indigenous hardwoods like *Milicia excelsa* (Iroko). The management of these fragmented blocks is intrinsically linked to the Mbioso and Itam villages, where local social groups maintain a legacy of the *Taungya* system that once integrated subsistence farming with state forestry goals.

3. Sclater's Monkey Forest (Ikot Uso Akpan/Obong Itam Axis)

The Monkey Forest of Ikot Uso Akpan and Obong Itam, located within the Itu and Ibiono Ibom axis, serves as a globally significant refuge for the critically endangered Sclater's monkey, locally revered as a communal totem. This moist tropical lowland forest fragment, though smaller than the industrial reserves, is incredibly dense in biodiversity and protected by powerful local taboos enforced by the Traditional Council that forbid the killing or eating of primates. The geography is highly undulating and features a humid microclimate that supports indigenous fruit trees and the *Idim Afia* stream, creating a specialized habitat where the community acts as the primary ecological guardian.

4. Obotme Forest Reserve

The Obotme Forest Reserve, found in the rugged, hilly topography of Ini LGA near the border of Abia State, serves as a vital watershed for the tributaries of the Cross River. Spanning approximately 4,500 hectares, this significant rainforest tract is characterized by high-canopy hardwoods including Mahogany and African Walnut, which provide a secluded corridor for migratory birds and forest antelopes like the Duiker. The communities of Obotme and Mbiabong act as the primary custodians, often utilizing traditional age-grade structures to monitor the boundaries against trans-border illegal logging and agricultural encroachment.

5. Lower Imo River Mangrove Forest

The Lower Imo River Mangrove Forest, located at the western boundary of the state where the Imo River meets the Atlantic, comprises approximately 5,000 hectares of extensive tidally-flooded forest. This geography is defined by salt-marsh conditions and intertidal mudflats that host a diverse range of species, including the West African Manatee and various waterfowl. Inhabited by the Eastern Obolo and Ikono-Offot coastal settlements, the forest is currently facing ecological pressure from the invasive *Nypa palm* (*Nypa fruticans*), which competes with indigenous Red Mangroves for dominance in the brackish estuarine environment.

6. Efiat/Mbiabo Mangrove Axis

The Efiat/Mbiabo Mangrove Axis sits at the extreme southeastern tip of the state along the Cross River estuary, covering an estimated 6,000 hectares of remote and dense tidal swamp. This high-density forest contains some of the tallest

mangroves in West Africa and serves as a critical habitat for the African palm nut vulture and various shellfish species essential to the local diet. The communities of Efiat and Mbiabo manage this maritime frontier, where the difficult, swampy geography makes it a primary zone for local youth-led maritime surveillance against illegal woodcutting and cross-border poaching.

7. Enwang Mangrove Forest

The Enwang Mangrove Forest in Mbo LGA is a significant coastal tract of approximately 2,500 hectares managed primarily for its role as an aquatic nursery and protection against sea surges. The geography is dominated by brackish water estuaries that host diverse gastropods and juvenile silver catfish, making it a cornerstone of the local fishing economy. The Enwang and Ebughu communities enforce indigenous management practices here, recognizing that the health of the mangrove roots is directly linked to the abundance of their aquatic harvests and the safety of their shoreline homes.

8. Ibiono Ibom Timber Tracts

The Ibiono Ibom Timber Tracts consist of inland lowland rainforest blocks totaling about 3,000 hectares, characterized by deep, well-drained soils that support the growth of premium hardwoods. This area is biologically rich in species such as *Piptadeniastrum africanum* (Dahoma) and *Terminalia ivorensis*, which have long been the focus of communal timber management and controlled extraction. Various clans across Ibiono Ibom, including the Afaha and Ikpanya, regulate access to these tracts through traditional land tenure systems that attempt to balance modern economic extraction with ancestral conservation norms.

9. Oruk Anam Community Forest

The Oruk Anam Community Forest covers approximately 2,800 hectares and is geographically defined by lowland flat plains with significant wetland depressions, ideal for the proliferation of palm species. The biodiversity of this area is uniquely dominated by the *Raffia palm* (*Raffia hookeri*) and oil palms, interspersed with secondary forest regrowth that includes bamboo and various ferns. Centered around Ikot Ibritam, the local social groups here have developed an economy based on raffia-derived products and gin distillation, demonstrating a management style that prioritizes sustainable non-timber forest product utilization.

10. Odoro Ikot Forest

The Odoro Ikot Forest in Essien Udim LGA is a large communal block of approximately 1,500 hectares that sits on an inland plateau, representing a transition zone between forest and savannah. This forest is unique for its concentration of medicinal flora and indigenous fruit trees like the White Star Apple (*Chrysophyllum albidum*), which are meticulously managed for traditional healing by local custodians. Protected by a robust age-grade system, the communities of Odoro Ikot maintain the forest as a "genetic library," strictly regulating the

harvesting of its rare botanical resources to prevent over-exploitation by outside entrepreneurs.

authority and survivalist economics. By integrating Political Ecology and the Theory of Access, we can move beyond superficial symptoms of deforestation to diagnose the root cause: a systemic breakdown of the "Social-Ecological Contract" between the state, the traditional elite, and the marginalized community (Peluso & Watts, 2021).

Political Ecology posits that environmental degradation is fundamentally a product of power struggles. In Akwa Ibom State, this manifests through "Elite Capture," where the environment becomes a site for the exercise of exclusionary power (Bryant, 2022). Historically, the elderly traditional councils in forest-bearing communities like Esit Eket, Ibesikpo, and Ibiono Ibom were the spiritual anchors of conservation, governing through "Sacred Groves" (*Akai*). However, modern Political Ecology reveals a shift toward the "commercialization of sovereignty" (Udo, 2019). Many elderly council members, facing the pressures of a cash-dependent economy and declining state support, have transitioned from custodians to "land brokers" (Jacob et al., 2022).

Case studies in the Stubbs Creek Forest Reserve vicinity illustrate this "connivance." Elderly leaders, leveraging their state-recognized status, have increasingly entered into clandestine agreements with wealthy entrepreneurs and agricultural speculators. This is a classic example of accumulation by dispossession: the elite utilize their "politicized authority" to sell or lease communal forested land, often without the consent of the broader community (Harvey, 2023). By converting communal ecological heritage into private financial capital, these elders effectively engage in "green grabbing," where the forest is no longer a shared resource but a commodity sold to the highest bidder for monoculture plantations or industrial expansion (Fairhead et al., 2022).

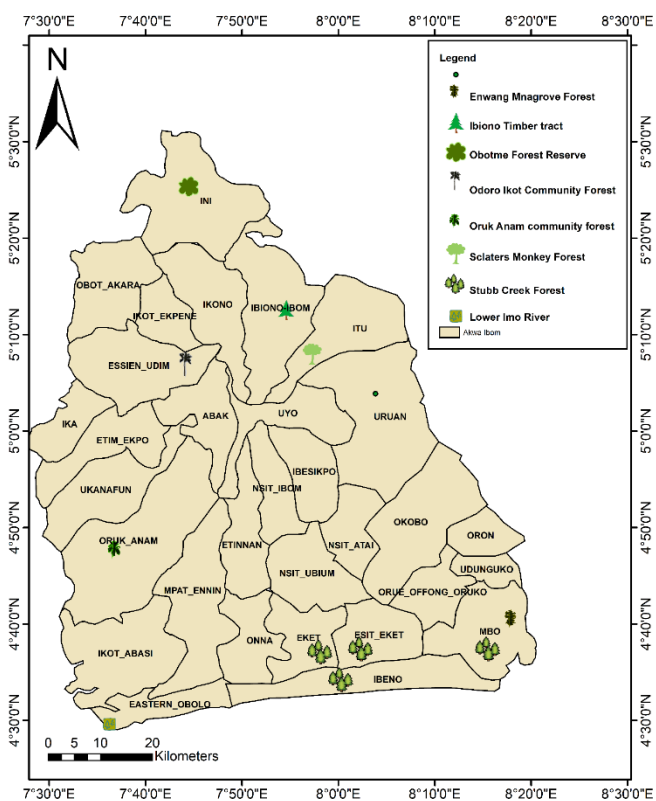


Fig 3: Study Area Map

Source: Compiled from Administrative Map of Akwa Ibom State

2.2 Theoretical Clarification

The management of forest resources in modern society is defined by a volatile intersection of decaying traditional

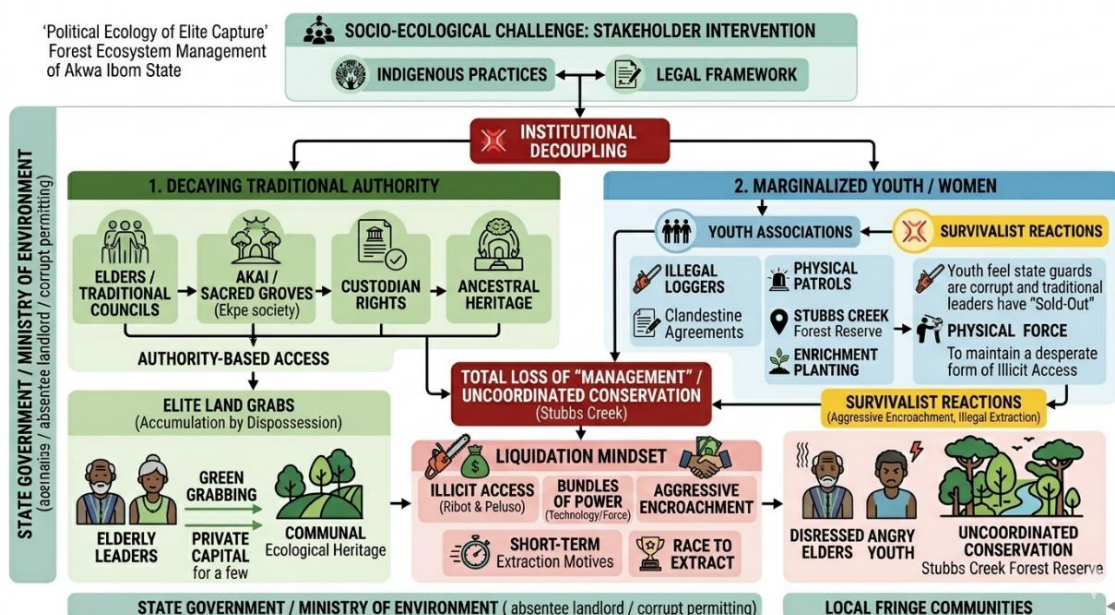


Figure 1: Model on Political Ecology and Stakeholders Constraints

While Political Ecology identifies the macro-corruption of authority, the Theory of Access explains the resulting micro-behavior of the youth. Access is defined as the "ability to benefit" from a resource, which is distinct from the mere legal "right" to it (Ribot & Peluso, 2003). When the elderly council connives with entrepreneurs to sell out forested land, they sever the "social identity" strand of access for the youth. The youth, who once relied on the forest for their future inheritance, find themselves legally and socially barred from the very land they live upon (Antai, 2018).

In response, the youth utilize their own "bundles of power"—specifically technology (chainsaws) and physical force—to maintain a desperate form of "illicit

access." Deprived of a seat at the table and witnessing the "sell-out" by their elders, the youth engage in aggressive encroachment and over-harvesting (Effiong & Okon, 2023). This is not merely an act of theft; it is a survivalist reaction to structural exclusion.

Because their access is insecure and temporary, youth operate under a "liquidation mindset"—harvesting timber and Non-Timber Forest Products (NTFPs) as quickly as possible before wealthy entrepreneurs can fence off the land (Okon & Bassey, 2021). In communities around Stubbs Creek, this has led to a "race to extract," where the youth perceive that if they do not harvest the timber today, it will be sold out from under them by the council tomorrow (Udofia et al., 2020).

THEORY OF ACCESS: VISUAL MODEL FOR ELITE CAPTURE AND SURVIVALIST REACTION

'Theory of Access' by Ribot & Peluso (2003)

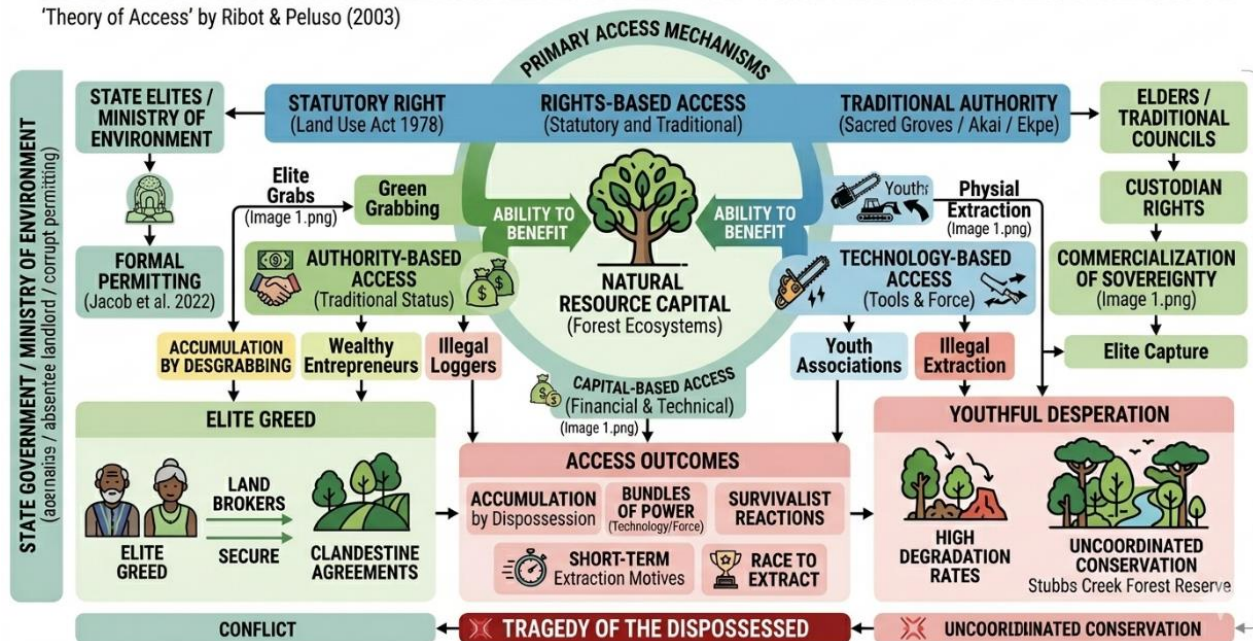


Figure 2: Model for Elite Capture and Survivalist Reaction

The synthesis of these frameworks reveals a "distorted web of power." The elderly council members utilize Authority-based Access to facilitate elite land grabs, while the youth utilize Technology-based Access to perform "survivalist rape" of the remaining resources. This creates a cycle of degradation: the elders provide the "legal" excuse for forest loss, and the youth provide the "operational" force for its depletion.

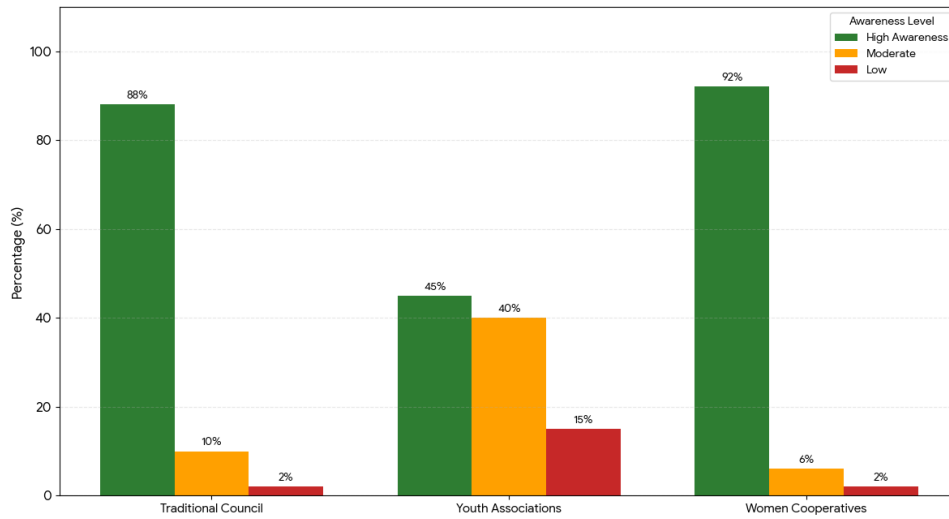
3.0 Materials and Methods

The study adopts a descriptive cross-sectional survey design and a phenomenological qualitative approach (Mixed Methods). This allows for the quantification of perceptions while capturing the "lived experiences" of the social groups through narratives.

The study covers 10 selected forest locations across Akwa Ibom State (Stubbs Creek, Mbioso, Obotme, etc.). The target population includes members of Traditional Councils, Youth Associations, and Women Cooperatives residing in the fringe communities. Moreover, the sample size was determined using Cochran's Formula for finite populations and 384 was derived. However, given the specific focus on "active" members of local social groups and accessibility in swampy terrains (Efiat/Mbiabo), a purposive sample of 300 participants was utilized (30 per forest location), which remains statistically significant for a localized geographic study at a 5.7% margin of error.

4.0 Results and Findings

Environmental Awareness and Perceptions by Social Group



Source: Fieldwork, 2026

The data as highlighted in figure 1 shows a significant "Perception Gap" that explains why current top-down government policies often fail—they assume everyone values the forest for the same reason.

Women exhibit the highest environmental awareness in the study. Their perception of the forest as a "Subsistence/Livelihood" hub is grounded in daily interaction.

Because women rely on Non-Timber Forest Products (NTFPs) like *Afang*, medicinal herbs, and snails for household survival, they are hyper-aware of subtle ecological changes. They notice when a species becomes scarce long before a state official does. This makes women the most reliable "Early Warning System" for biodiversity loss.

The Council views the forest through the lens of "Spiritual/Ancestral Heritage." Their high awareness is tied to the preservation of *Akai* (Sacred Groves) and the enforcement of ancient taboos. For the elders, forest management is a "sacred duty." A tree is not just wood; it is a monument to the ancestors.

This group provides the Moral Authority needed to make conservation laws "stick" without the constant need for armed guards. The Youth present the most complex data point. Their awareness is split between "High" (45%) and "Moderate" (40%), and they view the forest as an "Economic/Capital Asset." This is a "Utility-Based Perception." To a youth facing unemployment, a forest is often seen as "unlocked cash" (timber for sale). The 15% "Low Awareness" is the highest in the table, suggesting a detachment from traditional spiritual values in favor of survivalist economics. This group represents the Greatest Risk and Greatest Opportunity. If the "Economic Asset" perception isn't channeled into sustainable "Green Jobs" (like ecotourism or forest guarding), the youth will inevitably pivot toward illegal logging.

These findings align with research conducted in the Saharan African context, where customary land tenure often overrides formal state laws. Globally, this mirrors the "clash of jurisdictions" seen in Southeast Asian indigenous territories, where traditional elders act as the primary custodians of ecological knowledge, yet their exclusion from formal policy leads to management "friction." (Amanor, 2012).

Indigenous Management and Surveillance in Akwa Ibom Forests

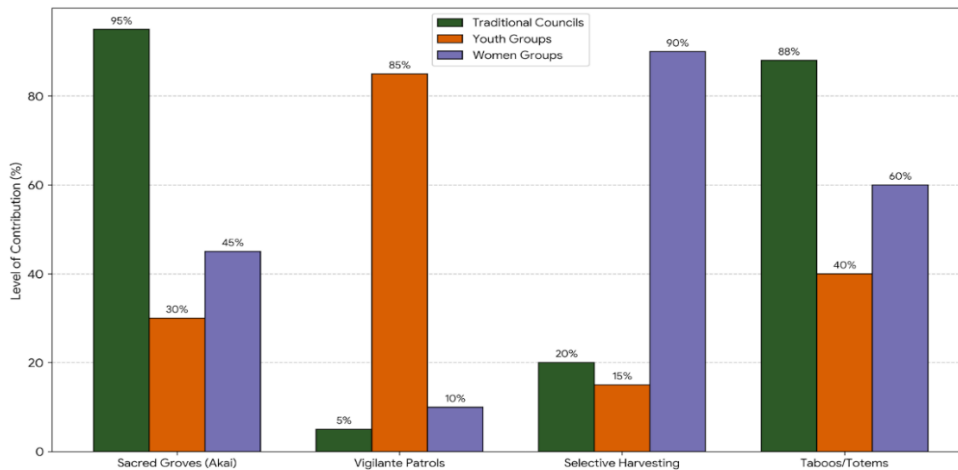


Figure 2: Indigenous Management and Surveillance in Akwa Ibom State Forests

The chart illustrates in figure 2 a profound "Specialization of Stewardship" among local social groups in Akwa Ibom, revealing a naturally occurring division of labor that formal state structures often ignore. The data shows that Traditional Councils are the primary custodians of the "Sacred" (Sacred Groves and Taboos/Totems). Their influence is almost absolute in defining the moral boundaries of the forest. This reflects a Spiritual Governance Model where conservation is not just a legal requirement but an ancestral debt.

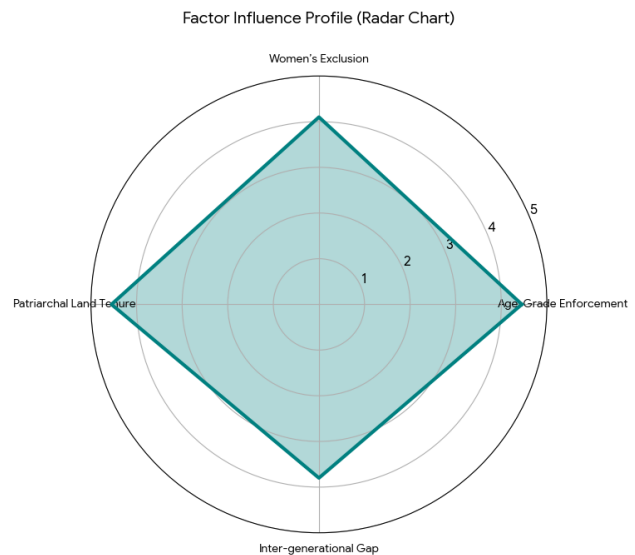
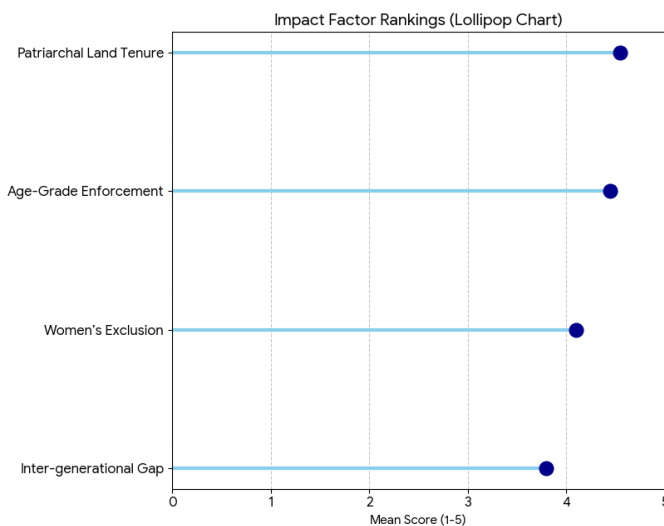
While the elders hold the spiritual authority, the Youth Groups provide the operational force. Their 85% dominance in Vigilante Patrols indicates that they are the "eyes and ears" on the ground. However, as noted in previous research, without formal state recognition, this energy often risks being co-opted into "guerrilla logging" if their livelihoods are threatened. This data advocates for the Formalization of Youth Rangers within a co-management framework.

The most striking finding is the 90% contribution of Women Groups to Selective Harvesting. While the men may manage the "high-canopy" timber, the women manage the "interstitial" biodiversity. They are the primary practitioners of non-extractive management, ensuring that Non-Timber Forest Products (NTFPs) are harvested in cycles that allow for regeneration. This highlights the

Gendered Knowledge Gap—excluding women from formal forestry boards means losing 90% of the expertise in sustainable resource use.

This chart provides empirical evidence for a Tripartite Co-Management Model that aligns with the UN Sustainable Development Goals (SDG 15 - Life on Land) and the Kunming-Montreal Global Biodiversity Framework. Unlike the "Top-Down" models common in many African states, this data proves that Akwa Ibom possesses an "Invisible Infrastructure" of conservation. The high levels of group-specific engagement suggest that deforestation occurs not because of a lack of local will, but because state laws (like the Land Use Act) create a "Governance Vacuum" by decoupling these groups from formal authority. This "Awareness-Exclusion" paradox is a well-documented phenomenon in Global South development theory. Studies in the Amazon Basin and South Asia (e.g., Agarwal, 2010) demonstrate that women often possess the most granular ecological knowledge due to their role in subsistence harvesting, yet patriarchal norms prevent this knowledge from influencing community-level forest policy. The Niger Delta case confirms that high awareness does not automatically translate into decision-making power.

Figure 3:



Source: Fieldwork, 2026

Based on the mean scores, the interpretation can be broken down into three core dimensions.

The Patriarchal Land Tenure system (4.55) is the most significant variable. In a geographic and developmental context, this indicates an "Extreme Barrier" to inclusive growth. Since land is the primary asset for natural resource management, a patriarchal system effectively centralizes

economic power, often sidelining women from participating in sustainable development or agricultural modernization.

Age-Grade Enforcement (Ekpe/Youth) (4.45) ranks as a "Very High" influence. This suggests that traditional institutions—like the Ekpe society—remain the primary mechanism for social order and rule enforcement. While

this ensures community stability, it also means that any developmental intervention or environmental policy must be funneled through these existing hierarchies to be effective.

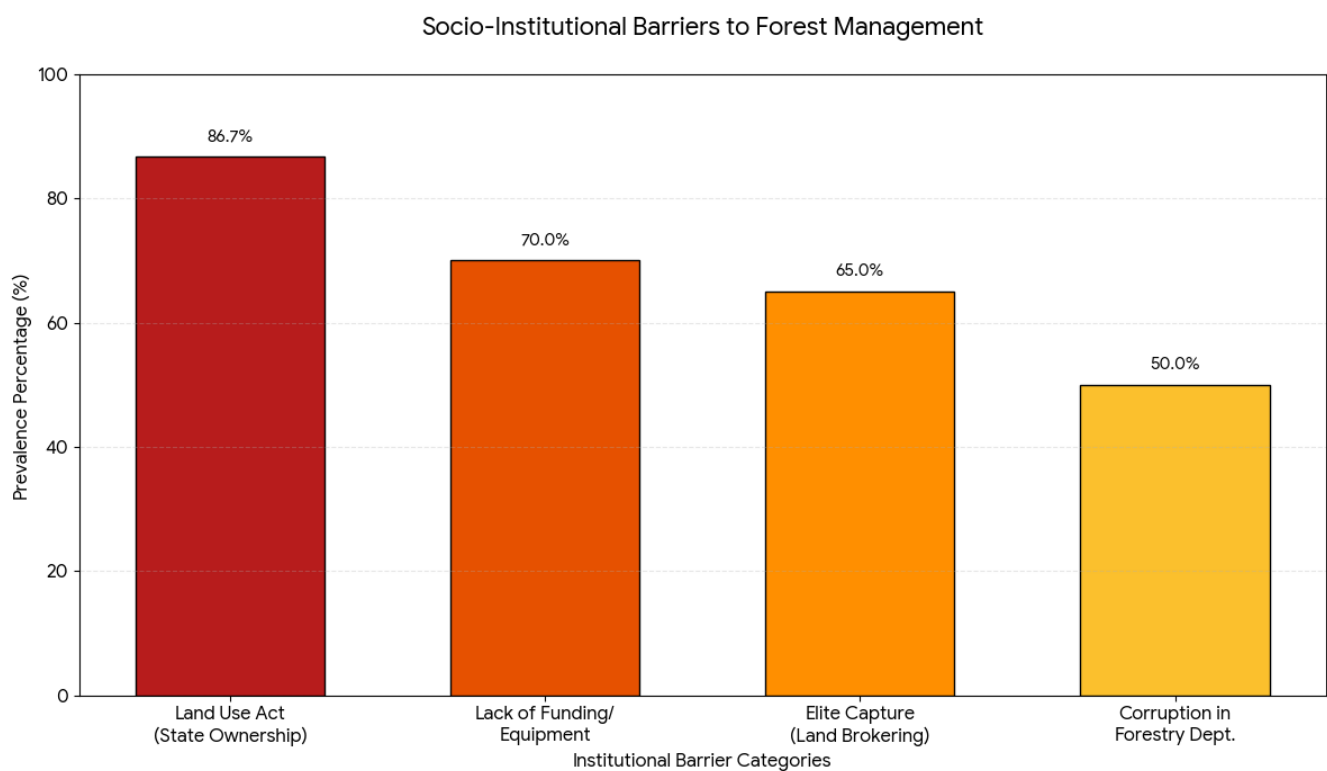
Considering women’s exclusion from decisions (4.10), this "High Barrier" confirms a gendered gap in governance. When women are excluded, the community loses a specific layer of ecological and domestic knowledge that is crucial for natural resource management.

On the other hand, inter-generational knowledge gap (3.80), ranking as "Moderate," this suggests that while traditional knowledge is still being passed down, there is a visible friction between the older custodians of tradition and the younger generation.

The data portrays a society where traditional hierarchy and gender-defined land rights are the dominant forces. For any research or policy framework—such as those involving the "Blue Economy" or ecological recovery—these factors represent the "social friction" that must be addressed to ensure successful community engagement.

This reflects a global trend of "de-agrarianization" and the monetization of nature among rural youth. Similar shifts have been recorded in **Latin America**, where younger generations prioritize short-term extractive gains (logging or mining) over long-term ancestral heritage, often due to a lack of viable economic alternatives in rural areas.

Figure 4: Socio-Institutional Barriers



From figure 4, Land Use Act (86.7%) stands out as the primary institutional barrier. This indicates that state ownership of land is perceived as the most significant hurdle, likely creating a sense of "tenure insecurity" among local communities. Besides, Lack of Funding/Equipment (70.0%) follows, highlighting a gap between policy intent and operational capacity.

In the study, governance integrity or Elite Capture (65.0%) and Corruption in the Forestry Dept. (50.0%) show significant percentages. Even at the lower end of this ranking, a 50% corruption perception is statistically critical, as it suggests that half the population lacks trust in the primary regulatory agency.

This resonates with the "Resource Curse" literature (e.g., *Auty, 1993*). Globally, when the state centralizes land ownership—particularly in oil-rich regions like the Caspian Sea or Angola—it often leads to Elite Capture (65.0%) and a breakdown of local stewardship. The findings suggest that the Niger Delta suffers from a "double burden" of restrictive state laws and exclusionary traditional norms.

5.0 Concluding Remark and Policy Recommendations

The evidence gathered through this investigation serves as a definitive call for a paradigm shift in the environmental governance of the Niger Delta. The study reveals that the path to sustainable resource management is not obstructed

by a community's lack of awareness, but rather by a profound structural misalignment between traditional social hierarchies, gendered knowledge systems, and state-led institutional frameworks.

The findings highlight a "stewardship paradox" where the most environmentally conscious segment of the population—the women—is systematically marginalized by patriarchal land tenure and exclusionary decision-making norms. Furthermore, the restrictive nature of state land ownership acts as a legal anchor, preventing the community-led stewardship necessary for long-term ecological recovery. As the younger generation increasingly shifts toward a commodified, asset-based view of the forest, the region faces a critical juncture. To achieve true resilience, we must move beyond top-down command-and-control models and embrace a system of institutional hybridity where indigenous wisdom is protected by law and powered by modern geospatial intelligence.

To harmonize state policy with indigenous stewardship and ensure the sustainability of forested land, the following strategic interventions are proposed:

1. Formalization of Community Land Trusts

Legislative reform should prioritize the creation of Community Land Trusts. By decoupling "nominal state ownership" from "local management rights," the government can provide the tenure security necessary for communities to invest in long-term conservation. This shift directly addresses the threat of elite capture and provides a legal shield for communal resources.

2. Mandated Gender-Inclusive Governance

Conservation frameworks must transition from mere consultation to formal power-sharing. Policy should mandate a specific percentage of decision-making authority for women's cooperatives in all local resource committees. By integrating the high level of subsistence-based awareness held by women into formal governance, policies will reflect practical ecological realities rather than just extractive interests.

3. Integration of Green Entrepreneurship for Youth

To bridge the inter-generational knowledge gap, the economic aspirations of the youth must be aligned with environmental protection. This can be achieved by establishing "Digital Forest Ranger" programs that utilize UAV and GIS technologies. This approach transforms the perception of the forest from a static capital asset into a dynamic platform for green innovation and professional careers.

4. Decentralized Oversight and Transparency

The regulatory functions of forestry departments should be decentralized to work in tandem with traditional councils. By utilizing the spiritual and ancestral value that elders place on the environment, and supporting it with digital transparency tools, the region can move away from a culture of administrative corruption toward one of localized, pride-driven stewardship.

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