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COMMUNITY PARTICIPATION AND SUSTAINABILITY OF SOME SELECTED RURAL DEVELOPMENT PROJECTS IN OBIO/AKPOR LOCAL GOVERNMENT AREA, RIVERS STATE, NIGERIA

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Abstract
This study assessed impact of community participation on the long-term sustainability of rural development projects within Obio/Akpor Local Government Area, Rivers State, Nigeria. Operating within a socio-demographic framework where physical infrastructure investments from State and regional development interventions (NDDC) are prominent, many projects suffer from premature operational failure. The study utilized a descriptive survey research design with a stratified random sampling technique to collect data from 120 validated households and community stakeholders across the six regional axis of Obio/Akpor LGA. Structured questionnaire measuring available project types, stages of citizen engagement, local governance quality, and systemic sustainability parameters was administered. Descriptive statistics (mean score criterion $\bar{X} \geq 2.50$) revealed that while physical infrastructure projects like water boreholes ($\bar{X} = 3.36$) and feeder roads ($\bar{X} = 3.03$) were highly prevalent, community participation is strictly tokenistic, limited to providing manual labor or land resources ($\bar{X} = 2.83$) while sidelining citizens during critical needs assessment ($\bar{X} = 1.89$) and decision-making phases ($\bar{X} = 1.58$). Inferential analysis using Pearson Product-Moment Correlation verified a strong, positive, and statistically significant relationship between community participation and project sustainability ($r = 0.764$, $p < 0.05$), leading to the rejection of the null hypothesis. The baseline operational sustainability of infrastructure was found to be critically fragile ($\bar{X} = 1.86$), severely constrained by political interference, budget discontinuity ($\bar{X} = 3.48$), and a deficient local maintenance culture ($\bar{X} = 3.47$). The study concludes that infrastructure longevity in Obio/Akpor LGA is fundamentally tied to the depth of community ownership rather than engineering execution alone.

Keywords: *Community Participation, Sustainability, Rural Development, project.*

1.0 Introduction

The concept of rural development has undergone a radical transformation over the last few decades. Historically, development was viewed as something done to a people rather than done with them. This paternalistic model, often called the top-down approach, assumed that central governments possessed all the technical expertise needed to solve rural poverty. However, the high failure rate of these projects across the Global South led to a paradigm shift toward participatory development. This approach argues that for any intervention to be sustainable, the beneficiaries must be the primary drivers of the process (Mansuri & Rao, 2013).

In Nigeria, the rural development narrative is particularly complex, especially in the oil-rich Niger Delta. Obio/Akpor Local Government Area (LGA) occupies a unique position in this discourse. While it serves as a commercial nerve center for Rivers State, it remains a collection of

ancestral communities such as Akpor, Rumueme, and Rumuigbo where rural characteristics persist alongside rapid urbanization. Despite the influx of projects from the Niger Delta Development Commission (NDDC), the State Government, and various multinational oil companies, the quality of life in many of these communities has not improved proportionately (World Bank, 2021; Elenwo, 2022). Nwachukwu and Omotola (2018) argue that the missing link in the Niger Delta's development is the social capital of the communities. When locals are sidelined, projects are often viewed as alien intrusions rather than community assets.

Sustainability in this context is not merely about the physical durability of a building; it is the ability of the community to manage, repair, and benefit from a facility long after the contractor has handed over the keys. Efe and Eyenghe (2020) emphasized that sustainability is a three-legged stool comprising economic viability, environmental friendliness, and social equity. In Obio/Akpor, the social leg is often the weakest. Without a robust framework for community participation, infrastructure becomes a temporary monument to wasted resources. This study, therefore, examines the critical intersection between how the people of Obio/Akpor are engaged and how long their projects actually last.

The paradox of development in Obio/Akpor LGA is that while it is one of the wealthiest LGAs in Nigeria, it is also a graveyard for dead projects. It is common to find multimillion-naira water schemes that have not produced a drop of water in years, or solar streetlights that stopped functioning months after they were installed. These white elephant projects represent a massive drain on public funds and a betrayal of the community's expectations (Amah, 2020; Williams, 2021).The core of this problem is the participation gap. Current evidence suggests that many projects in Obio/Akpor are awarded as political patronage. Consequently, the host communities are often unaware of a project until the contractor arrives on-site. When the people are excluded from the Needs Assessment phase, the government might build a market where the people need a clinic, or install a complex water treatment plant in a community that lacks the technical skills to maintain it (Nwachukwu & Omotola, 2018; Udemba, 2021). Udemba (2019) notes that this exclusion breeds a culture of entitlement without responsibility, where residents do not feel obligated to protect facilities from vandalism or theft. This study is birthed from the urgent need to identify why participation is failing and how it can be re-engineered to ensure that rural projects survive for the next generation. It therefore became imperative to assess the level of community participation and sustainability of some selected rural development projects in Obio/Akpor Local Government Area, Rivers State.

This study is anchored on Participatory Development Theory, which emphasizes the active involvement of local people in the identification of their development needs, planning, decision-making, implementation, monitoring and evaluation of projects that affect their lives. The theory emerged as a response to conventional top-down development approaches, which often treat rural people as passive beneficiaries rather than active partners in development. Its central assumption is that development interventions are more likely to be relevant, accepted, owned and sustained when beneficiaries participate meaningfully throughout the project cycle. Participation therefore promotes local ownership, empowerment, accountability, capacity building and the incorporation of indigenous knowledge into development planning. Recent studies continue to demonstrate that meaningful community engagement strengthens project ownership and contributes to the sustainability of rural development interventions, particularly where communities are involved in decision-making and implementation (Aguene, 2024; Mammet & Minja, 2023).

Participatory Development Theory is particularly relevant to the present study because community participation constitutes the independent variable, while sustainability of rural development projects represents the outcome variable. The theory suggests that when members of communities are involved in determining project priorities, contributing resources, implementing activities and participating in monitoring and maintenance, they develop a stronger sense of ownership and responsibility towards the projects. Such ownership can increase the likelihood that

rural development projects will continue to function after external agencies or government institutions reduce their involvement. Recent evidence shows that community engagement, trust, collaboration and local ownership are important for the durability of community-based development initiatives (Carmen et al., 2024; Enhancing watershed management in developing countries, 2024).

In the context of rural development projects in Obio/Akpor Local Government Area, meaningful participation would therefore involve community members in project identification, prioritisation, planning, implementation, monitoring and maintenance rather than merely receiving completed projects. Recent Nigerian scholarship similarly argues that participatory approaches, inclusive decision-making, trust-building and community capacity development are essential for achieving sustainable development outcomes.

The theory also provides a basis for explaining the role of **social relationships, trust and collective action** in sustaining rural development projects. Communities with stronger networks of cooperation and trust are more capable of mobilising local resources, resolving collective-action problems and maintaining shared development facilities. Recent research indicates that social capital can enhance participation in rural public-good provision and that bonding, bridging and linking relationships can improve access to resources, collective action and sustainable rural development outcomes (Addai et al., 2024; Chen et al., 2024).

2.0 Objectives of the Study

The study specifically (i) described the socio-economic characteristics of respondents, (ii) identified the types of rural development projects in the study area, (iii) examined the level and nature of community participation in the planning, implementation and monitoring of community development projects in the study area and (iv) examined constraints to community participation and sustainability of rural development projects in Obio/Akpor LGA .The study hypothesized that there is no significant relationship between community participation and project sustainability in Obio/Akpor Local Government Area

3.0 Methodology

Obio/Akpor Local Government Area is situated in the Northeastern part of the Niger Delta within Rivers State, Nigeria. It is geographically positioned between latitudes 4°45'N and 4°60'N and longitudes 6°50'E and 8°00'E. The LGA covers an area of approximately 260 square kilometers. It is strategically bounded by Ikwerre LGA to the North, Port Harcourt City LGA to the South, Oyigbo and Eleme LGAs to the East, and Emohua LGA to the West (Eze *et al*., 2023).

A multi-stage sampling procedure was used for the study. In the first stage, the communities were grouped into different strata based on geographical region (clan) to ensure that no region is left out during data collection. The second stage involves a purposive sampling; three communities (from each clan) were purposively selected based on factors like number of community development projects. In the third stage, a total of 120 respondents were randomly selected from the communities previously selected to constitute the sample size for the study. Primary data were collected using structured questionnaire. Descriptive statistical tools such as frequency, percentages and mean to analyze, while the hypothesis was analysed using Pearson correlation model.

The Pearson correlation model is expressed as:

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2]}}$$

Where:

r= Pearson Product Moment Correlation Coefficient

N= Number of respondents

X= Scores on community participation

Y= Scores on project sustainability
$\sum XY$= Sum of the cross-products of X and Y
$\sum X$= Sum of X scores
$\sum Y$= Sum of Y scores
$\sum X^2$= Sum of squared X scores
$\sum Y^2$= Sum of squared Y scores

Decision Rule
At the 5% level of significance:
Reject H_0 if $p < 0.05$.
Fail to reject H_0 if $p \geq 0.05$.

4.0 Results and Discussion

Socio-Economic Characteristics of the Respondents

The demographic configuration of Obio/Akpor LGA reveals a peri-urban community structure undergoing rapid social change. The age distribution reveals a mature, economically active populace, with 69.2% of respondents concentrated between 31 and 50 years of age. This reflects a population with a direct, long-term interest in the quality and survival of localized public infrastructure. Gender metrics show that 61.7% of respondents are male, and 38.3% are female. This imbalance mirrors the structural barriers to land ownership and community decision-making roles often documented within the Niger Delta region (Nwidum & Ogonu, 2020).

A major finding is the high rate of formal literacy, with 45.8% of the respondents possessing tertiary-level degrees. This high concentration is driven by the close proximity of major educational institutions, such as Rivers State University and the University of Port Harcourt (Eze et al., 2023). However, this high educational attainment stands in stark contrast to household economic realities. Nearly half of the surveyed population (48.3%) subsists on a monthly income between ₦50,000 and ₦150,000. This disparity highlights the economic conditions of the region, where high resource extraction coexists with stagnant household wealth accumulation (National Population Commission & National Bureau of Statistics, 2022).

Consequently, traditional agrarian livelihoods have largely declined, with farming accounting for only 13.3% of primary occupations. Instead, micro-commercial trading and artisanal services (together totaling 59.1%) have become the dominant survival strategies. This shift matches recent observations by Okoye (2021), who notes that infrastructure development in urban-fringe local government areas must navigate a highly fluid, non-agrarian, and economically strained populace.

Table 1: Distribution of respondents bsed on the socio-economic characteristics (n=120)

Variables	Category	Frequency (n=120)	Percentage (%)	Mean
Age (years)	21–30	22	18.3	
	31–40	45	37.5	39 years
	41–50	38	31.7	
	51 and above	15	12.5	
	Total	**120**	**100.0**	
Sex	Male	74	61.7	
	Female	46	38.3	
	Total	**120**	**100.0**	
Level of education	Non formal education	5	4.2	
	Primary school	18	15.0	
	Secondary school	42	35.0	
	Tertiary institution	55	45.8	
	Total	**120**	**100.0**	

Household size (persons)	1–5 persons	48	40.0	
	6–10 persons	62	51.7	6 persons
	11 persons and above	10	8.3	
	Total	**120**	**100.0**	
Monthly income (₦)	₦50,000 - ₦150,000	58	48.3	
	₦150,000 - ₦250,000	34	28.3	₦183,333.33
	₦250,000 - ₦350,000	18	15.0	
	₦350,000 and above	10	8.3	
	Total	**120**	**100.0**	
Primary Occupation	Business/Trading	52	43.3	
	Civil service	28	23.3	
	Farming	16	13.3	
	Artisan	19	15.8	
	Others	5	4.2	
	Total	**120**	**100.0**	

Source: Field Survey (2026).

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4.2 Types of Rural Development Projects in the Study Area

The data demonstrates that basic physical infrastructure dominates development activities in Obio/Akpor. Water boreholes ($\bar{X}$ = 3.36) and drainage networks ($\bar{X}$ = 3.03) are widely deployed. This concentration of physical infrastructure reflects the types of interventions typically favored by the Niger Delta Development Commission (NDDC), state ministries, and local government councils. These institutions tend to prioritize high-visibility engineering footprints (Elenwo, 2022). Conversely, soft infrastructure such as functional vocational centers ($\bar{X}$ = 2.45) and agricultural support mechanisms ($\bar{X}$ = 2.05) remain deficient. This structural imbalance indicates an emphasis on short-term engineering footprints rather than integrated rural socio-economic empowerment schemes. This pattern aligns with criticism from Efe and Eyenghe (2020), who argue that rural development in Rivers State remains heavily biased toward physical projects. This focus often neglects the economic frameworks needed to sustain local populations over time.

Table 2: Mean distribution on the types of rural development projects (n=120)

Rural Development Projects	VC (4)	C (3)	S (2)	NA (1)	Mean ($\bar{X}$)	Remarks
Feeder roads and drainage infrastructure	42	48	22	8	3.03	Accepted
Water boreholes and public water kiosks	65	38	12	5	3.36	Accepted
Community primary schools/vocational centres	15	42	45	18	2.45	Rejected
Primary Healthcare Centres (PHCs)	20	35	50	15	2.50	Accepted
Economic/Agro-support (mills, fish ponds)	8	22	58	32	2.05	Rejected
Composite Mean					2.68	Common

Criterion Mean: ≥ 2.50 Source: Field Survey (2026).

VC - Very Common; C - Common; S - Scarce; NA – Not Available

4.3 Level and Nature of Community Participation

The participation profile uncovers a significant structural flaw. While community resource contribution is high ($\bar{X}$ = 2.83), largely because local land must be utilized or local youth integrated

into manual labor forces, the strategic planning components are profoundly weak. Needs assessment ($\bar{X}$ = 1.89) and decision-making authority ($\bar{X}$ = 1.58) fall critically below the baseline threshold. This pattern aligns with Sherry Arnstein's classic framing of citizen participation, where project execution in the region operates primarily as a tokenistic ritual (Arnstein, 1969; International Association for Public Participation, 2020). Government agencies and corporate donors treat local communities as passive beneficiaries rather than active partners. As noted by Nwachukwu and Omotola (2018), this dynamic forces a top-down model on the Niger Delta. Interventions exploit local resources during construction but exclude residents from financial and strategic management, creating a significant participation gap.

Table 3: Mean distribution according to the level and nature of community participation (n=120)

Participation Variables	VGE (4)	GE (3)	LE (2)	VLE (1)	Mean ($\bar{X}$)	Remarks
Needs Assessment (Town halls)	8	19	45	48	1.89	Low Extent
Resource Contribution (Land/labor)	35	44	26	15	2.83	High Extent
Decision Authority (Contractor selection)	3	11	38	68	1.58	Low Extent
Project Monitoring (Local vigilance)	12	22	41	45	2.01	Low Extent
Information Flow (LGA/NDDC transparency)	6	14	35	65	1.68	Low Extent
Composite Mean					2.00	Low Extent

Criterion Mean: ≥ 2.50 **Source:** Field Survey (2026).
VGE – Very Great Extent; GE - Great Extent; LE – Little Extent; VLE – Very Little Extent

4.4 Constraints to Project Structural Sustainability

The analysis confirms a volatile operational landscape for infrastructure survival. Political interference and project discontinuity ranked as the highest barrier ($\bar{X}$ = 3.48). This underscores the widespread 'New King, New Law' dynamic in Rivers State, where changing political administrations consistently favor high-profile, brand-new project installations over budgeting for the maintenance of existing structures (Williams, 2021).

A weak community maintenance culture ($\bar{X}$ = 3.47) and a missing psychological sense of ownership ($\bar{X}$ = 3.36) operate as secondary critical constraints. Because local residents are excluded during project design phases, they view these facilities as distant government property rather than communal assets, fostering an indifference that leaves them vulnerable to equipment theft and vandalism (Amah, 2020).

Table 4: Mean distribution according to the constraints to project structural sustainability (n=120)

Identified Strategic Constraints	SA (4)	A (3)	D (2)	SD (1)	Mean ($\bar{X}$)	Remarks
Poor community maintenance culture	68	42	8	2	3.47	Strongly Agree
Lack of psychological sense of ownership	59	48	10	3	3.36	Strongly Agree
Inadequate funding and high inflation	44	56	16	4	3.17	Agree

Political interference & project discontinuity	72	36	10	2	3.48	Strongly Agree
Technical mismatch and poor quality of work	50	45	18	7	3.15	Agree
Composite Mean					3.33	Critical Threat

Criterion Mean: ≥ 2.50 **Source:** Field Survey (2026).
SA – Strongly Agree; A – Agree; D – Disagree; SD – Strongly D

4.5 Project Sustainability Assessment

The baseline assessment presents a sobering structural outlook ($\bar{X}$ = 1.86). Most rural development interventions in Obio/Akpor suffer from rapid financial and technical distress. The inability to build local technician capacity ($\bar{X}$ = 1.70) and the failure to establish user-pay contribution models ($\bar{X}$ = 1.65) mean that minor technical malfunctions often result in permanent asset abandonment. Without localized maintenance skills or internal funding mechanisms, communities cannot address even minor equipment failures, often leading to permanent project abandonment. These findings support Okon's (2023) critique of development in the Niger Delta, which notes that failing to embed technical skills and independent financing frameworks within the host community turns these areas into "graveyards for dead projects."

Table 5: Mean distribution according to the level of asset operational sustainability (n=120)

Operational Performance Markers	SA (4)	A (3)	D (2)	SD (1)	Mean ($\bar{X}$)	Remarks
Consistent and functional asset service	8	15	52	45	1.88	Unsustainable
High community defense of asset security	11	20	48	41	2.01	Unsustainable
Reliable user-pay maintenance financing	4	12	42	62	1.65	Unsustainable
Trained local technicians for rapid repairs	6	14	38	62	1.70	Unsustainable
Measurable positive impact on family wealth	12	22	50	36	2.08	Unsustainable
Composite Mean					1.86	Highly Fragile

Criterion Mean: ≥ 2.50 **Source:** Field Survey (2026).
SA – Strongly Agree; A – Agree; D – Disagree; SD – Strongly Disagree

4.6 Test of Hypothesis

The result presented in table 6 shows a correlation coefficient of r=0.764on the scale of 0 and 1. This implies a positive relationship between community participation and Project Sustainability. It is significantly correlated at 5% level of significance. The null hypothesis is therefore rejected.

This demonstrates empirically that as community engagement shifts away from tokenism toward active decision-making, the operational longevity and functional survival of rural projects increase systematically.

This finding provides clear empirical support for Ostrom's Principle of Common-Pool Resource Management (Ostrom, 2018). When community engagement moves beyond simple manual labor and includes active decision-making power, project longevity improves significantly.

Active participation builds local knowledge and shared responsibility, turning a project from an outside intervention into a valued community asset (Udemba, 2021).

Table 6: Pearson Product-Moment Correlation Matrix showing the relationship between Community Participation and Sustainability (n=120)

Statistical Indices	Community Participation	Project Sustainability
Community Participation	1	0.764**
Sig. (2-tailed)		0.000
N	120	120
Project Sustainability	0.764**	1
Sig. (2-tailed)	0.000	
N	120	120

Source: Field Survey (2026). *** **Correlation is significant at the 0.05 level (2-tailed).***

5.0 Conclusion and Recommendations

5.1 Conclusion

Based on the findings of the study, it is concluded that the rapid deterioration and widespread abandonment of public infrastructure projects in Obio/Akpor Local Government Area are institutional and behavioral, rather than purely technical. The study successfully demonstrated that infrastructure sustainability is mathematically and structurally dependent on the depth of early-stage citizen engagement.

While interventionist agencies frequently deliver physical assets to communities, they bypass authentic needs assessments and community decision-making pathways. This top-down approach reduces communities to passive beneficiaries rather than active project custodians, resulting in a distinct lack of psychological ownership. Consequently, when minor mechanical or operational faults occur, assets are left to deteriorate dnue to a missing localized maintenance framework and inadequate financial contribution models.

True project sustainability cannot be achieved through short-term external spending; it requires integrated local governance, institutional transparency, and deep community ownership at every stage of development.

5.2 Recommendations

To bridge the participation gap and establish permanent, self-sustaining infrastructure across the communities of Obio/Akpor LGA, the following recommendations were made:

i. Strengthen community participation in needs assessment, decision-making, monitoring, and information sharing throughout the project cycle.
ii. Establish community-based maintenance systems, including trained local technicians and dedicated maintenance funds, to improve asset functionality.
iii. Ensure transparent and stable project funding while reducing political interference and discontinuity in rural development projects.
iv. Promote community ownership and accountability through regular stakeholder meetings, monitoring, and user contributions for sustainable project management.

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