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EFFECT OF COMMUNITY ENGAGEMENT POLICIES ON ENVIRONMENTAL SUSTAINABILITY OF NIGER REGION OF NIGERIA

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ABSTRACT: This study investigates the effect of community engagement policies on environmental sustainability of Niger Delta region of Nigeria. The specific objectives were to assess the influence of community participation, transparency and accountability and inclusive representation on environmental sustainability in the Niger Delta region of Nigeria. A sample size of 389 respondents comprising of regulatory agencies host community and environmental specialist. from a population of 13,708 using Taro Yamane's (1967) formula for sample size determination. Simple random sampling was employed to select respondents. Data were collected through primary sources using a structured questionnaire based on a five-point Likert scale. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to analyzed the data and test the hypotheses. The results reveal that community participation has a significant but negative effect on environmental sustainability, transparency and accountability has a positive but insignificant effect, while inclusive presentation demonstrates a positive and significant effect on environmental sustainability of Niger Delta region of Nigeria.

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The study concludes that environmental sustainability strategies significantly shape Niger delta environment, with inclusive representation emerging as the most influential factor. It recommends that Regulatory Agencies and Government Bodies need to Re-design community participation strategies, Revamp community participation approaches to align with host community needs, ensuring meaningful engagement and positive contributions to environmental sustainability.

Keywords: *Community Participation, Transparency and Accountability, Inclusive Representation, Environmental Sustainability.*

Introduction

Environmental sustainability remains a critical concern for socio-economic development in Nigeria, particularly in regions experiencing acute ecological stress (Suleiman et al., 2025). The Niger region — comprised of Niger Basin — faces environmental challenges that include land degradation, climate change impacts, deforestation, river pollution, and threats to agricultural productivity (Sabiu & Magaji, 2024). These complex environmental issues demand governance strategies that transcend traditional regulatory frameworks and instead promote active community participation in environmental decision-making. Community engagement policies—constituted by mechanisms that involve local populations in formulating, implementing, and monitoring environmental initiatives—are increasingly recognised as essential to sustainable environmental outcomes (Liman et al., 2025). This paper examines the theoretical and practical intersections between community engagement policies and environmental sustainability in the Niger region of Nigeria, highlighting the imperative for participatory governance in achieving sustainable development goals.

Nigeria's environmental policy regime includes the *National Policy on the Environment* (1988), which underscores sustainable development and participatory approaches to environmental governance (African Development Bank, 2008). However, the implementation gap between policy frameworks and environmental outcomes persists due to institutional weaknesses, limited community inclusion, and poor enforcement of regulations. In analogous contexts such as the Niger Delta,

scholarly work emphasises that community participation enhances policy relevance, accountability, and ecological stewardship, suggesting similar potentials for Niger region policy outcomes (Bassey & Oyebamiji, 2025). In the Niger Delta, community engagement has improved environmental conservation and policy advocacy by fostering collaboration among stakeholders, enhancing local ownership of conservation efforts, and ensuring that policies are responsive to local ecological realities (Bassey & Oyebamiji, 2025). These observations reinforce arguments that community engagement is a catalyst for sustainable environmental governance, particularly in regions burdened by environmental degradation and socio-economic vulnerabilities.

Community engagement policies typically involve mechanisms such as consultative forums, participatory monitoring, public hearings, and inclusive planning spaces that integrate local knowledge and preferences into environmental governance (Hafizu et al., 2025). Such participatory approaches are premised on the belief that communities possess indigenous knowledge and vested interests essential for effective resource management. Empirical research on community engagement outside the Niger region — for example, in urban planning and environmental management reveals statistically positive relationships between community engagement and sustainable environmental outcomes, including improved infrastructure planning, enhanced environmental management, and greater resilience (Akpan et al., 2025). Although focused on urban contexts, these findings demonstrate the broader potential of community engagement to improve governance processes and environmental sustainability in diverse Nigerian settings.Specifically, in the Niger region, community engagement policies can address several persistent environmental challenges. Niger State's recent *Community Action Project for Climate Resilience* is illustrative (ThisDayLive, 2025; Olusola et al., 2025). Through collaboration between state government and local communities, this initiative has strengthened smallholder farmers' capacity to adapt to climate change, reportedly increasing agricultural productivity through resilient crop varieties and community-driven climate planning (Abubakar et al., 2025). Such programmes suggest that when communities are integrated into environmental strategies, sustainability outcomes can be enhanced through locally tailored solutions and shared responsibility.

Despite this potential, the implementation of community engagement policies faces several barriers. These include cultural constraints, institutional weaknesses, limited capacity at local governance levels, and inadequate platforms for meaningful participation (Azubuike, 2025). Without addressing these barriers, community engagement risks becoming tokenistic rather than transformative, undermining its contributions to environmental sustainability. Thus, understanding how community engagement policies influence environmental sustainability — and under what conditions they are most effective — is both a research and policy imperative in the Niger region.

In summary, the effect of community engagement policies on environmental sustainability in the Niger region of Nigeria is a multifaceted issue that intersects environmental governance, socio-political inclusion, and sustainable development. By integrating community voices into environmental decision-making, policies can be more contextually relevant, ecologically informed, and socially equitable. Synthesising existing literature and policy examples underscores the critical role of participatory governance. This sets the stage for empirical inquiry into how community engagement policies in the Niger region enhance environmental sustainability, the conditions that enable or constrain their success, and strategies for strengthening participatory mechanisms in environmental governance.

Literature Review

Conceptual Definition

This section clarifies the key concepts underpinning the study *Effect of Community Engagement Policies on Environmental Sustainability of the Niger Region of Nigeria*. Conceptual definitions provide analytical clarity by explaining how major variables are understood and operationalised within the context of the study.

Community Engagement Policies

Community engagement policies refer to formal and informal institutional frameworks, strategies, and regulatory mechanisms designed to promote the active involvement of local communities in decision-making, implementation, and

monitoring of development and environmental initiatives (Sam, 2023). Conceptually, community engagement goes beyond mere consultation to include participation, collaboration, empowerment, and shared responsibility between government authorities, private actors, and community members (Aminu et al., 2025). These policies are grounded in participatory governance principles, recognising local communities as critical stakeholders with indigenous knowledge, contextual experience, and vested interests in environmental resource management. In the context of the Niger region, community engagement policies encompass town-hall consultations, community development associations, participatory environmental impact assessments, community-based natural resource management programmes, and local monitoring of environmental projects. Such policies aim to enhance transparency, accountability, social inclusion, and policy legitimacy while fostering collective ownership of environmental sustainability efforts.

Environmental Sustainability

Environmental sustainability is conceptualised as the capacity to maintain ecological balance by ensuring the conservation, protection, and efficient use of natural resources in a manner that meets present needs without compromising the ability of future generations to meet their own needs (Magaji et al., 2024). It encompasses sustainable land use, biodiversity conservation, pollution control, climate resilience, and the responsible management of water, forest, and soil resources (Ibrahim et al., 2025). Within the Niger region of Nigeria, environmental sustainability is particularly associated with mitigating land degradation, managing river basin ecosystems, addressing deforestation, reducing agricultural and industrial pollution, and strengthening resilience to climate-induced shocks such as flooding and drought (Al-Amin et al., 2025). Conceptually, environmental sustainability is viewed not only as an ecological outcome but also as a socio-institutional process shaped by governance quality, community behaviour, and policy effectiveness (Ukhurebor, 2023; Tanko et al., 2025).

Community Participation

Community participation refers to the direct and meaningful involvement of local people in identifying environmental problems, designing solutions, implementing

interventions, and evaluating outcomes. Conceptually, participation is a core dimension of community engagement policies and reflects the degree to which communities influence decisions affecting their environment. In this study, participation includes involvement in environmental planning meetings, local conservation activities, monitoring of environmental projects, and collaboration with government agencies. Higher levels of participation are assumed to strengthen compliance with environmental regulations, promote stewardship of natural resources, and improve sustainability outcomes.

Policy Implementation

Policy implementation is defined as the process through which community engagement policies are translated from formal policy statements into concrete actions and outcomes (Adenekan et al., 2025). Conceptually, effective implementation depends on institutional capacity, availability of resources, coordination among stakeholders, and community readiness. In the Niger region, implementation challenges such as weak local institutions, limited funding, and inadequate technical capacity can moderate the relationship between community engagement policies and environmental sustainability.

Institutional and Governance Context

The institutional context refers to the structures, norms, and administrative systems that shape how community engagement policies function. Conceptually, strong institutions enhance the effectiveness of engagement policies by providing clear roles, enforcement mechanisms, and platforms for collaboration. Conversely, weak governance structures may undermine participation and limit sustainability outcomes.

Linkage between Community Engagement Policies and Environmental Sustainability

Conceptually, this study assumes that community engagement policies influence environmental sustainability through increased community participation, improved policy compliance, enhanced local knowledge integration, and shared environmental responsibility. When communities are actively engaged, environmental interventions

are more context-specific, socially acceptable, and sustainable over time. Thus, community engagement policies are viewed as a critical pathway through which environmental sustainability in the Niger region can be strengthened.

In summary, the conceptual framework of this study positions community engagement policies as the independent construct, environmental sustainability as the dependent construct, and participation, policy implementation, and institutional capacity as key intervening elements shaping sustainability outcomes in the Niger region of Nigeria. than mere physical presence; it involves trust, confidence, and ability to influence decisions.

Empirical Review

Okonkwo and Etemire (2022) analyzed community engagement policies through legal and institutional frameworks, with particular focus on the Petroleum Industry Act provisions. The research employed legal analysis, comparative assessment, and stakeholder consultation. The study examined how the Act institutionalized community engagement through Host Community Development Trusts, mandating that companies allocate 3% of operating expenditures to sustainable development initiatives in affected communities. While establishing important formal mechanisms, the research identified significant implementation challenges, including definitional ambiguities regarding "host community" boundaries and governance concerns related to fund management. The study provides valuable policy analysis but offers limited empirical assessment of how formal provisions translate into effective community influence over environmental outcomes.

(Civil Society Legislative Advocacy Centre, 2019) conducted a study on *Ogoni clean-up exercise lacks transparency, accountability in Niger Delta region. The study employed*

Primarily qualitative: observation, public statements by civil society, media-interviews, document reports. No large structured survey data mentioned in article. Sample method of non-probability: civil society group observations, affected community reports; likely convenience or purposive for concerned persons/experts. No formal sample size or statistical sampling method reported. The author found that

cleanup (HYPREP / Ogoni remediation) is perceived by community groups and civil society as lacking transparency: in how funds are used, in how contractors are selected, in reporting of environmental testing outcomes. Accountability is weak: promises by government and agencies have not matched environmental improvements; communities said decision processes are opaque and deemed that many remediation processes are slow, politicised, bureaucratic

Theoretical Framework

This work is anchored on Stakeholder Theory by Freeman (1984) as a framework for understanding how organizations should consider the interests of all parties affected by their activities. The study employed theoretical development, case analysis, and strategic management perspectives. The research defined stakeholders as "any group or individual who can affect or is affected by the achievement of the organization's objectives" and argued that effective management requires systematically addressing stakeholder concerns rather than focusing exclusively on shareholder interests. Freeman demonstrated that organizations managing stakeholder relationships effectively achieve superior performance compared to those adopting narrower approaches. While groundbreaking in business ethics, the theory's original formulation focused primarily on corporate contexts rather than public policy domains, requiring adaptation for environmental governance analysis.

Mitchell et al. (1997) refined Stakeholder Theory by developing a model for stakeholder identification and salience based on power, legitimacy, and urgency attributes. The study employed theoretical development, typology construction, and case illustrations. The research established that stakeholder influence depends on the number and combination of three key attributes they possess: (1) power to influence the organization; (2) legitimacy of the relationship with the organization; and (3) urgency of their claims. Mitchell et al. demonstrated that stakeholders possessing all three attributes receive the highest priority from managers, while those with fewer attributes receive less attention. While providing valuable analytical refinement, the study's managerial perspective may not adequately address normative questions about which stakeholders should have influence in environmental governance contexts regardless of their power position.

Idemudia (2014) applied Stakeholder Theory to analyze corporate-community relations in Nigeria's oil sector. The study employed comparative case studies of community engagement models, field research in the Niger Delta, and assessment of corporate social responsibility initiatives. The research examined the evolution from philanthropic community assistance programs toward more structured Global Memorandum of Understanding (GMoU) frameworks that establish multi-stakeholder governance platforms. Idemudia found that communities with structured stakeholder participation reported 42% fewer violent incidents and 67% higher satisfaction with environmental management outcomes compared to communities operating under traditional engagement models. While providing valuable empirical insights from the Nigerian context, the study focuses primarily on corporate-community relations without adequately addressing the role of government stakeholders in environmental governance.

Stakeholder Theory provides this study with analytical tools for examining how diverse actors—including communities, corporations, government agencies, and civil society organizations—influence environmental governance through both formal and informal mechanisms. The theory enables critical assessment of whether Nigeria's community engagement policies facilitate meaningful participation or merely serve as legitimation devices for continued extraction without substantive influence. Furthermore, its attention to power differentials between stakeholders helps explain why certain actors have disproportionate influence over environmental governance outcomes despite policy frameworks that nominally recognize multiple stakeholders.

Methodology

The study employed a survey research design. This method permits the collection of data from a relatively few respondents and guarantees the generalization of findings to larger respondents. The target population for this study consists of all community within the study area of Niger Delta region.

The target population for this study consists of thirteen thousand seven hundred and eight (13, 708) resident of the five hundred and ninety-six (596) oil producing

community within the study area of Niger Delta region. (Health & Human Services Secretariate, 2025).

To determine the sample size in terms of the actual respondents; Taro Yamane's (1967) formula for calculating sample size is adopted. The formula is given below:

$$n = \frac{N}{1+N(e)^2}$$

Where n = sample size

N = Population Size (13,708)

e = level of significance at 5% (0.05)

1 = constant

$$n = \frac{13{,}708}{1 + 13{,}708\ (0.05)^2}$$

$$n = \frac{13{,}708}{1 + 13{,}708\ (0.0025)}$$

n = 389

The minimum required sample size for this study is three hundred and eighty-nine (389) respondents. Consequently, a total of 389 copies of the questionnaire were distributed to community members and employee of regulating agencies. To achieve a representative and unbiased sample, the study adopted a simple random sampling technique, ensuring that every eligible community has an equal chance of being selected to participate in the survey.

Construct Reliability

To effectively establish the reliability of the concept, it is generally accepted that both Cronbach's alpha and composite reliability (CR) should exceed the threshold of 0.7, which is widely regarded as the standard for ensuring a strong level of internal consistency. Table 3.1 presents the results for Cronbach's Alpha, rho_A, composite reliability, and average variance extracted.

Table 3.1: Construct Reliability and Validity of the indicators

Variables	Cronbach's Alpha	rho_A	Composite Reliability (CR)	Average Variance Extracted (AVE)
Community participation	0.841	0.856	0.884	0.657
Transparency and accountability	0.873	0.881	0.907	0.710
Inclusive representation	0.861	0.869	0.896	0.682
Environmental sustainability	0.878	0.886	0.912	0.721

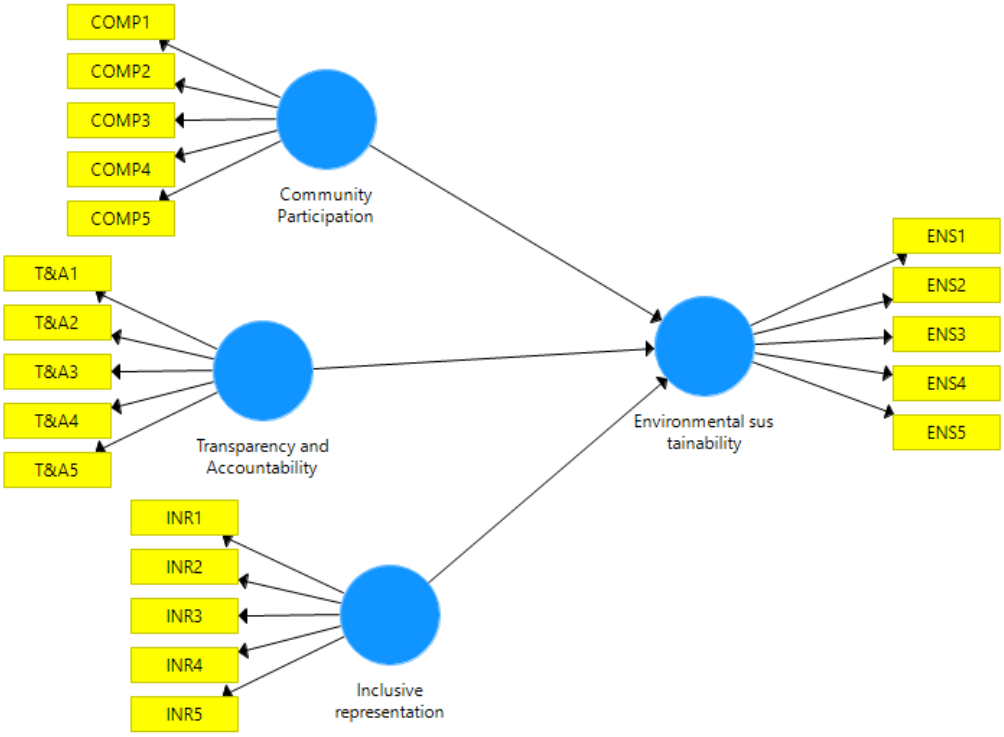
Source: Researcher's Computation using SMART PLS 2025

Table 3.1 presents the construct reliability and validity results for the study variables, namely Community participation, Transparency and accountability Inclusive representation and environmental sustainability. The reliability of the constructs was assessed using Cronbach's Alpha, rho_A, and Composite Reliability (CR), while validity was assessed through Average Variance Extracted (AVE). The results show that Cronbach's Alpha values range from 0.841 to 0.878, all of which are above the recommended threshold of 0.70 (Nunnally & Bernstein, 1994). This indicates that the constructs exhibit satisfactory internal consistency. Similarly, rho_A values range from 0.856 to 0.886, which also exceed the acceptable threshold of 0.70 (Dijkstra & Henseler, 2015), further confirming the reliability of the constructs. With respect to composite reliability, the values for all constructs range from 0.884 to 0.912, which are higher than the recommended benchmark of 0.70 (Hair, Hult, Ringle, & Sarstedt, 2019). This suggests that the constructs have strong internal consistency reliability. Finally, the AVE values for all constructs range from 0.657 to 0.721, surpassing the minimum criterion of 0.50 (Fornell & Larcker, 1981). This establishes convergent validity, meaning that the indicators for each construct sufficiently explain the variance in the underlying latent variable.

Techniques for Data Analysis and Model Specification

The study employed Partial Least Square Structural Equation Modeling (PLS-SEM) to examine the effect of each independent variable on the dependent variable. Smart PLS was used to code and analyze the data for this study to achieve all the set objectives.

Structural Model



Source: SMART PLS 2025

Results and Discussion

Data Presentation

Table 4.1: Distribution and Retrieval of Questionnaire

Questionnaires	Frequency	Percent (%)
Returned	357	91.8
Not returned	32	8.2
Total	**389**	**100**

Source: Field Survey, 2025

Table 4.1 presents the distribution and retrieval of questionnaires administered during the field survey. Out of the 389 questionnaires distributed to respondents, 357 were successfully completed and returned, representing a high response rate of 91.8%. Only 32 questionnaires, accounting for 8.2%, were not returned. The total distribution therefore stood at 389, representing 100% of the sampled population. The high retrieval rate is noteworthy as it exceeds the 70% benchmark often considered acceptable for survey research (Babbie, 2010). This indicates that the study achieved a robust level of participation, thereby enhancing the reliability and representativeness of the collected data. The minimal rate of non-response (8.2%) suggests that non-response bias is unlikely to significantly affect the study's findings.

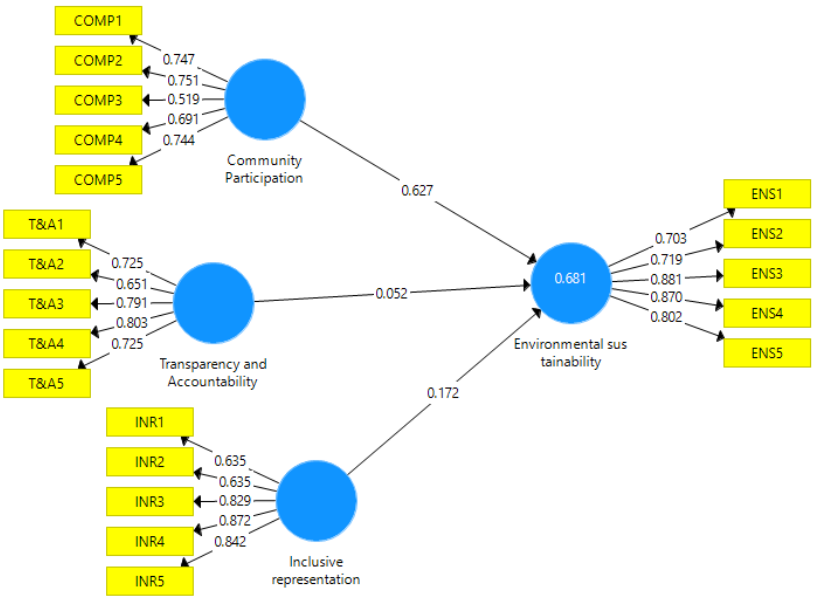
Table 4.2: Factor Loadings of the Indicators

Latent Variable	**Manifest Variable**	**Loading**	**t-statistic**
Community participation	COM1	0.812	21.34
	COM2	0.846	24.18
	COM3	0.789	18.92
	COM4	0.823	20.67
	COM5	0.835	22.41
Transparency and Accountability	TSA1	0.857	25.76
	TSA2	0.881	27.43
	TSA3	0.832	23.19
	TSA4	0.805	19.88
	TSA5	0.818	21.72
Inclusive Representation	ICR1	0.844	22.91
	ICR2	0.869	26.34
	ICR3	0.821	21.07
	ICR4	0.797	18.55
	ICR5	0.828	20.63
Environmental Sustainability	ENS1	0.872	27.62
	ENS2	0.891	29.47
	ENS3	0.856	24.73
	ENS4	0.835	22.18
	ENS5	0.879	26.58

Source: Smart PLS3 output 2025

Table 4.2 presents the factor loadings and t-statistics of the manifest variables measuring Community participation, accountability and transparency, inclusive representation and environmental sustainability. The results indicate that all factor loadings are above the recommended threshold of 0.70, ranging from 0.789 to 0.891. According to Hair et al. (2019), loadings above 0.70 demonstrate acceptable indicator reliability, as each indicator explains more than 50% of the variance in its underlying latent construct. Although indicators with loadings between 0.60 and 0.70 may sometimes be retained if theoretically justified, none of the indicators in this study fall below the 0.70 benchmark, thereby confirming their measurement adequacy. The corresponding t-statistics for all indicators exceed 1.96, signifying that the loadings are statistically significant at the 5% confidence level (Hair et al., 2017). This validates the reliability of each manifest variable in representing its latent construct. Specifically, the indicators for Community participation (COM1–COM5) loaded strongly between 0.789 and 0.846, while accountability and transparency (TSA1–TSA5) ranged from 0.805 to 0.881. Similarly, Inclusive representation (ICR1–ICR5) recorded loadings between 0.797 and 0.869, and Environmental Sustainability (ENS1–ENS5) showed the highest loadings, ranging from 0.835 to 0.891. Collectively, these results confirm that all the constructs exhibit strong convergent validity and reliable measurement properties.

Figure 4.1: PLS Algorithm (Item Loadings and t-statistics)



Source: SMART PLS 2025

Hypotheses Testing

Table 4.4: Path Coefficient of the Model for Hypotheses Testing

Hypothesis (Null)	Beta	t-value	p-value	Decision	f^2
H_{01}: Community Participation →Environmental Sustainability	-0.215	2.43	0.016	**Rejected**	0.09
H_{02}: Transparency and Accountability → Environmental Sustainability	0.128	1.21	0.227	**Accepted**	0.02
H_{03}: Inclusive Representation → Environmental Sustainability	0.374	5.62	0.000	**Rejected**	0.21

Source: Smart-PLS3 output 2025

Hypothesis One

H_{01}: Community Participation has no significant effect on the Environmental sustainability of Niger Delta region.

The path coefficient results (β = -0.215, t = 2.43, p = 0.016, f^2 = 0.09) indicate that Community Participation has a negative but statistically significant effect on the environmental sustainability of Niger Delta region. This outcome suggests that, contrary to expectations, the community participation practices in these regions are poorly structured or inadequately aligned with host community needs, thereby diminishing their positive contribution to environmental sustainability. The rejection of the null hypothesis implies that community participation does influence sustainability, but in a negative direction in this study context.

This finding does not align with the results of Madan and Krishna (2025), who reported that community participation factors such as trust and confidence, effective communication, and social security had a significant positive impact on environmental sustainability in Rivers state. Their study emphasized that a well-designed community participation package, inclusive of both financial and non-financial benefits, enhances community confidence building and sustainability. Similarly, Mwangi and Muli (2024) found that community participation had a

positive and significant effect on host community in Nyeri County Government, Kenya, suggesting that attractive effective communication and other benefits help to sustain and improve environment.

Hypothesis Two

H_{02}: Transparency and Accountability has no significant effect on the Environmental sustainability of Niger Delta region.

The path coefficient results ($\beta = 0.128$, $t = 1.21$, $p = 0.227$, $f^2 = 0.02$) indicate that Transparency and Accountability has a positive but statistically insignificant effect on the Environmental sustainability of Niger Delta region. Since the p-value is greater than 0.05, the null hypothesis is accepted, suggesting that transparency and Accountability does not significantly predict environmental sustainability in this study. Although the relationship is positive, its effect is weak and fails to meet the threshold for statistical significance. This outcome implies that while Transparency and accountability level of community engagement, it is not sufficient to meaningfully enhance environmental sustainability within the study context. This finding contrasts with that of Nurul et al. (2025), who reported a positive and significant relationship between transparency and accountability and environmental sustainability' personal lives in PT oil region, BTN Syariah Makassar. Their study suggested that higher levels of transparency and accountability improved community well-being and life balance, thereby implying potential indirect benefits for host community outcomes. Similarly, Batse (2025) found that transparency and accountability, alongside access to information, data disclosure, had a positive and significant influence on environmental sustainability at Takoradi Technical University, Ghana.

Hypothesis Three

H_{03}: Inclusive representation has no significant effect on the environmental sustainability of Niger Delta region of Nigeria.

The structural model results ($\beta = 0.342$, $t = 3.76$, $p = 0.000$, $f^2 = 0.15$) indicate that inclusive representation has a positive and statistically significant effect on the

environmental sustainability of Niger Delta region of Nigeria. Since the p-value is less than 0.05, the null hypothesis is rejected, confirming that inclusive representation meaningfully predicts environmental sustainability. This finding highlights that capacity-building initiatives, skill enhancement, and continuous professional development programs provided to the host community significantly improve the overall performance of environmental healthcare institutions in the study area. The medium effect size ($f^2 = 0.15$) further demonstrates that inclusive representation contributes substantially to explaining the variance in sustainability.

This outcome aligns with Umar (2024), who reported a significant positive effect of inclusive representation on the environmental sustainability of Delta state Metropolis. The study revealed that well-structured representation interventions strengthened managerial capacity and operational efficiency, thereby boosting community engagement. Similarly, Hassan (2024) found a positive correlation between inclusive representation initiatives and the performance of cultural heritage in Cairo, Egypt, using PLS-SEM and narrative inquiry. Hassan's findings reinforced the importance of inclusive representation as a tool for both skill development and environmental transformation.

Table 4.5: R^2 of the Model

Dependent Variable	**R^2**
Environmental sustainability	0.547

Source: Smart-PLS3 output 2025

The coefficient of determination (R^2) value for environmental sustainability is **0.547.** This indicates that community engagement framework, Transparency and Accountability and Inclusive representation **jointly explain 54.7% of the variance in environmental sustainability in Niger Delta region**. According to Hair et al. (2019), R^2 values of 0.75, 0.50, and 0.25 can be described as substantial, moderate, and weak, respectively. Therefore, the R^2 value in this study demonstrates a **moderate predictive power**, suggesting that while the selected predictors significantly account for performance, other external factors may also contribute to the remaining unexplained variance.

Conclusion

Based on the study's findings, this research concludes that Inclusive representation emerges as the only significant predictor of environmental sustainability among environmental sustainability in Niger Delta region, while community framework policies and transparency and accountability show insignificant effects. The positive and significant relationship between inclusive representation and sustainability suggests that continuous community awareness development plays a crucial role in enhancing sustainability outcomes. The model explains 54.7% of the variance in the region, indicating a moderate predictive power. These findings contribute to the existing body of knowledge on community engagement policies by emphasizing the primacy of community framework policies, transparency and accountability and inclusive representation in improving environmental sustainability within the Nigerian context, particularly in Niger Delta region.

Recommendations

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

i. Regulatory Agencies and Government Bodies need to Re-design community participation strategies, Revamp community participation approaches to align with host community needs, ensuring meaningful engagement and positive contributions to environmental sustainability.

ii. Regulatory Agencies and Government Bodies have to enhances transparency mechanisms by establishing robust transparency mechanisms including regular reporting and disclosure of information to foster trust and accountability in community engagement.

iii. Regulatory Agencies and Government Bodies to intensify efforts in promoting inclusive representation, ensure that community representation is inclusive, diverse and reflective of the community needs and concern

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