

Original Research Article

Stakeholder Collaboration and Environmental Sustainability in Development Initiatives across South-South Nigeria: A Critical Discourse Analysis

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Abstract: Stakeholder participation has become a vital factor in achieving environmental sustainability in development projects, especially in ecologically sensitive areas such as South-South Nigeria. This study looked into how engaging stakeholders can impact sustainable environmental results in development initiatives marked by oil exploration, biodiversity loss, and ongoing socio-environmental conflicts. The study employed participatory development theory and stakeholder theory; the research used a mixed-methods approach, gathering survey data from community members, government agencies, and corporate representatives, along with qualitative insights from key informant interviews. The findings revealed that when stakeholders are included, it boosts environmental accountability, fosters local ownership, and allows for the incorporation of indigenous knowledge into project design and execution. On the flip side, when engagement is limited or merely symbolic, it often leads to environmental harm, community backlash, and project failures. The study also highlighted that issues such as power imbalances, weak institutional frameworks, and poor communication channels can hinder effective participation. Interestingly, corporate social responsibility efforts by multinational oil companies showed varying levels of success, largely depending on how deeply they involve the community and the transparency of their processes. The research emphasised the importance of participatory governance structures that focus on equity, dialogue, and ongoing engagement among all stakeholders. Ultimately, it concludes that achieving environmental sustainability in the South-South region hinges on meaningful stakeholder involvement throughout all phases of development planning and implementation. The policy recommendations stress the need to strengthen regulatory institutions, build community capacity, and encourage multi-stakeholder partnerships to

promote environmentally responsible and socially inclusive development outcomes in the area.

Keywords: Stakeholder Participation, Environmental Sustainability, Development Initiatives, South-South Nigeria, Participatory Governance.

Introduction

Stakeholder participation has emerged as a vital topic in the conversation around sustainable development. It's recognised as a crucial way to achieve environmentally responsible and socially inclusive results in development projects around the world (Filho & Brandli, 2025). When we talk about stakeholder engagement in the realm of sustainable development, we're referring to the organised involvement of a variety of players such as local communities, government bodies, private companies, and civil society groups in the planning, decision-making, implementation, and monitoring of projects that impact their environment and livelihoods. This engagement goes beyond just seeking opinions; it aims to ensure that development efforts truly reflect local needs, knowledge, and environmental priorities, which in turn boosts legitimacy and long-term sustainability.

In Nigeria, especially in the South-South region, development efforts are closely linked to a range of complex socio-environmental issues. This area, abundant in natural resources and biodiversity, has seen extensive oil exploration and extraction, often resulting in environmental damage, pollution, and the displacement of communities. Tackling these challenges requires more than just technical fixes; it calls for inclusive governance frameworks that allow all stakeholders to actively participate in shaping development paths. Research shows that participatory approaches can build trust, foster mutual understanding, and create a sense of shared responsibility among stakeholders, all of which are crucial for sustainable environmental management (Enechi & Pattberg, 2025).

Yet, the literature also points out ongoing obstacles to effective stakeholder participation in Nigeria, such as power imbalances, weak institutions, and limited capacity among community members. Studies focusing on community engagement in Nigerian development highlight that top-down methods, which often silence local voices, tend to lead to less favorable outcomes and lower project sustainability (Springer Nature Sustainability, 2025).

While it is widely acknowledged that involving stakeholders is crucial for sustainable development, there's still a noticeable lack of research specifically targeting the South-South geopolitical zone. This gap highlights the urgent need to explore how stakeholder participation can shape environmental sustainability in development projects in this area, especially considering its distinct socio-ecological context and historical background with resource-driven development.

Statement of the Problem

Even though stakeholder participation is increasingly seen as vital for sustainable development, the environmental situation in Nigeria's South-South region shows a troubling trend of inadequate stakeholder involvement, ineffective governance, and a lack of accountability in development efforts. This region, which is home to most of Nigeria's oil and gas reserves, has been plagued by ongoing environmental issues like oil spills, gas flaring, biodiversity loss, and water pollution. These problems are largely linked to extractive activities and the failure to enforce regulations properly (UNEP, 2011; Nwosu & Ofoegbu, 2020). Unfortunately, many development projects tend to prioritize economic benefits over ecological health and the well-being of local communities.

A key challenge is the often superficial nature of stakeholder engagement in various development initiatives. While policies and corporate guidelines may highlight the importance of community involvement, the reality is that stakeholder participation is frequently limited to mere information sharing rather than meaningful consultation or collaborative decision-making (Arowosegbe, 2016). This lack of genuine engagement weakens local ownership, erodes trust among stakeholders, and can lead to resistance, conflicts, and delays in projects. In many instances, community frustrations stemming from exclusion have escalated into protests and disruptions, complicating development efforts and jeopardising environmental sustainability outcomes (Idemudia, 2014).

Moreover, the ongoing institutional weaknesses and governance issues are still getting in the way of effective stakeholder collaboration. Regulatory bodies often find themselves lacking the necessary capacity or political independence to enforce environmental standards and ensure that development actors stick to participatory principles. On top of that, the power imbalances between multinational corporations, government agencies, and local communities make it tough for marginalized stakeholders to have a real say in decisions that impact their environment (Omeje, 2018). Unfortunately, indigenous knowledge systems, which could play a vital role in sustainable environmental management, are often ignored in formal planning processes.

Given these hurdles, it is clear that there's a significant gap between the theoretical ideals of stakeholder collaboration and the practical realities we see in development initiatives throughout Nigeria's South-South region. This disconnect raises serious questions about how effective current participatory approaches are in fostering environmental sustainability. Thus, the issue this study aims to tackle is the lack of meaningful stakeholder collaboration in development initiatives and its consequences for environmental sustainability in the South-South geopolitical zone of Nigeria.

Research Objectives

1. To examine the extent of stakeholder collaboration in development initiatives across South-South Nigeria.
2. To assess the relationship between stakeholder collaboration and environmental sustainability in selected development projects in the region.

3. To identify the challenges hindering effective stakeholder collaboration in development initiatives in South-South Nigeria.

Hypotheses of the Study

Based on the research objectives, the following null and alternative hypotheses are formulated:

- **H₀₁:** Stakeholder collaboration has no significant relationship with environmental sustainability in development initiatives in Nigeria's South-South region.
- **H₁₁:** Stakeholder collaboration has a significant relationship with environmental sustainability in development initiatives in Nigeria's South-South region.
- **H₀₂:** There is no significant effect of stakeholder collaboration on environmental sustainability in development initiatives in Nigeria's South-South region.
- **H₁₂:** There is a significant effect of stakeholder collaboration on environmental sustainability in development initiatives in Nigeria's South-South region.

Hypothesis Testing Procedure

The hypotheses were tested using inferential statistical methods, particularly Pearson Correlation Analysis and Simple Linear Regression Analysis, at a 0.05 level of significance.

Decision Rule:

If the **p-value** ≤ 0.05 , the null hypothesis (H_0) is rejected.

If the **p-value** > 0.05 , the null hypothesis (H_0) is accepted.

Test of Hypothesis One (Relationship Test)

- **H₀₁:** Stakeholder collaboration has no significant relationship with environmental sustainability.
- **H₁₁:** Stakeholder collaboration has a significant relationship with environmental sustainability.

Statistical Test: Pearson Product-Moment Correlation (r)

Decision Criterion: A significant positive or negative correlation with $p \leq 0.05$ indicates rejection of H_{01} .

If the analysis reveals a statistically significant correlation between stakeholder collaboration and environmental sustainability, it implies that higher levels of collaboration are associated with improved environmental outcomes.

Test of Hypothesis Two (Effect Test)

- **H₀₂:** Stakeholder collaboration has no significant effect on environmental sustainability.
- **H₁₂:** Stakeholder collaboration has a significant effect on environmental sustainability.

Statistical Test: Simple Linear Regression Analysis

Model Specification: Environmental Sustainability = $\beta_0 + \beta_1(\text{Stakeholder collaboration}) + \varepsilon$

Decision Criterion:

If the regression coefficient (β_1) is significant at $p \leq 0.05$, reject H_{02} .

If $p > 0.05$, fail to reject H_{02} .

A significant regression result indicates that stakeholder collaboration is a predictor of environmental sustainability, meaning that improvements in participatory practices contribute positively to environmental outcomes.

Theoretical Framework

Stakeholder Theory: This was brought into the spotlight by R. Edward Freeman, who suggests that organisations and development actors should take into account the interests of everyone affected by their actions, not just shareholders or primary beneficiaries. This theory emphasises that the best organisational performance and sustainable outcomes come from actively involving a diverse range of stakeholders, including communities, governments, investors, and civil society, in the decision-making process. When it comes to development initiatives, Stakeholder Theory champions inclusivity, accountability, and the creation of mutual value for all parties involved.

In the context of this study, Stakeholder Theory sheds light on how the involvement or exclusion of local communities and other key players can impact environmental outcomes. For instance, in Nigeria's South-South region, where oil exploration and other extractive activities are common, the theory highlights the critical need to engage host communities in environmental governance. This engagement can help reduce conflict, build trust, and foster sustainable resource management. It also points out the risks of ignoring stakeholder interests, which can lead to resistance, environmental harm, and inefficiencies in projects.

Participatory Development Theory: This theory emerged from the insights of scholars like Robert Chambers, who pushed for development approaches that start from the ground up, valuing the knowledge, experiences, and active participation of local communities. It argues that sustainable development is most effectively achieved when beneficiaries are directly involved in identifying issues, designing solutions, implementing projects, and assessing results. This perspective challenges traditional top-down development models that often silence local voices and disregard indigenous knowledge.

In relation to this study, Participatory Development Theory offers a valuable lens for understanding how genuine stakeholder engagement can boost environmental sustainability. In the South-South region of Nigeria, communities hold a wealth of indigenous knowledge about their ecological surroundings. By embracing participatory approaches, we can enhance environmental management practices, bolster local ownership, and ensure that development initiatives are not only relevant to the context but also socially acceptable.

These theories offer a robust framework for examining how stakeholder involvement impacts environmental sustainability. They also shed light on the institutional, social, and governance dynamics that shape participatory processes in development efforts.

Literature Review

Stakeholder Participation and Sustainable Development

Stakeholder participation is all about the active engagement of individuals, groups, or organisations that have a stake in or are affected by a specific project, policy, or development initiative. This includes processes like consultation, collaboration, empowerment, and shared decision-making. R. Edward Freeman defines stakeholders as any group or individual who can influence or is influenced by the achievement of an organisation's goals (Freeman, 1984). In the realm of development practice, stakeholder participation goes beyond just sharing information; it involves genuine engagement that empowers stakeholders to impact decisions, share their knowledge, and participate in the implementation and evaluation of projects (Pretty, 1995; Reed, 2008).

When done effectively, stakeholder collaboration/participation is linked to greater transparency, accountability, and legitimacy in development projects (Mansuri & Rao, 2013). In Nigeria's South-South region, this participation is especially vital because host communities are directly affected by oil exploration and other extractive activities. Engaging stakeholders actively helps build trust, minimizes conflict, and improves the sustainability of development outcomes (Idemudia, 2014). However, participation may be constrained by power imbalances, limited access to information, and inadequate institutional support structures (Arowosegbe, 2016).

Scholars highlight that getting stakeholders involved is essential for achieving sustainable development goals. Research indicates that when a variety of stakeholders come together, it promotes accountability, transparency, and a sense of shared responsibility in development efforts, ultimately leading to improved environmental outcomes (Filho & Brandli, 2025). By engaging stakeholders from different sectors, project objectives can better reflect local needs, and environmental risks can be tackled collaboratively, which aligns perfectly with the principles of sustainable development frameworks.

Environmental sustainability is all about interacting with our environment in a way that prevents the depletion or degradation of natural resources, ensuring that ecosystems remain healthy for future generations. This concept encompasses maintaining biodiversity, managing resources wisely, reducing pollution, and addressing the environmental risks that come with human activities (WCED, 1987; Goodland, 1995). It's closely tied to the larger idea of sustainable development, which seeks to balance environmental protection, economic growth, and social equity.

In Nigeria's South-South region, the issue of environmental sustainability is particularly urgent due to the negative effects of oil exploration, gas flaring, and industrial activities. Research has shown that these practices have caused significant ecological damage, impacting livelihoods, health, and community stability (UNEP, 2011; Nwosu &

Ofoegbu, 2020). To promote sustainable environmental practices, it is not just about enforcing regulations; it also requires the active involvement of stakeholders in environmental governance. When communities participate, they can help monitor environmental conditions, report violations, and advocate for conservation practices that resonate with local realities (Reed, 2008).

Development Initiatives

Development initiatives are essentially planned actions, programs, or projects aimed at enhancing economic, social, and infrastructural conditions in a specific area. These initiatives can be carried out by a variety of players, including governments, private organizations, international agencies, or even through public-private partnerships (Todaro & Smith, 2015). In South-South Nigeria, development efforts often focus on infrastructure projects, environmental cleanup programs, corporate social responsibility (CSR) initiatives from oil companies, and community development schemes.

The success of these development initiatives is increasingly gauged not just by economic results but also by their social and environmental effects. Approaches that promote inclusive development highlight the importance of involving stakeholders at every stage of project planning and execution (Mansuri & Rao, 2013). This involvement ensures that initiatives are tailored to local needs, culturally relevant, and environmentally sound. However, when participation is minimal or merely symbolic, these initiatives can fall short of their goals and may even worsen environmental damage and social tensions (Idemudia, 2014).

Interrelationship of the Concepts

The concepts of stakeholder collaboration/participation, environmental sustainability, and development initiatives are closely linked. Stakeholder participation acts as a vital channel through which environmental sustainability can be integrated into development efforts. When stakeholders are engaged, they bring valuable local insights, boost accountability, and promote environmentally conscious decision-making (Reed, 2008). On the flip side, weak or nonexistent participation can lead to negative environmental impacts, social unrest, and unsustainable development practices (Pretty, 1995).

In Nigeria's South-South region, the interplay between these concepts is especially crucial, given the area's environmental sensitivity and the local communities' reliance on natural resources. Grasping these concepts and their interconnections lays the groundwork for exploring how participatory approaches can enhance environmental sustainability.

Motivations for Stakeholder Participation in Nigeria

Recent studies examining stakeholder motivations in Nigeria show that multi-stakeholder partnerships (MSPs) play a crucial role in achieving Sustainable Development Goals (SDGs). In Nigeria, stakeholders are drawn to participate because their interests and values often overlap with both national and global sustainability initiatives. However, the literature points out a significant gap: there aren't enough comparable studies

that delve into the specific conditions and motivations that drive participation, particularly in sub-Saharan Africa, leaving a void in our empirical understanding.

Research within Nigeria's construction sector reveals that engaging stakeholders is key to reaching sustainability objectives. This study illustrates that when construction projects involve a diverse range of stakeholders, it leads to better environmental and social outcomes, highlighting the essential role stakeholders play in promoting sustainability across national industries (Isang et al., 2025).

International research also emphasises the connection between stakeholder engagement and environmental accountability. A study from Italy found that when stakeholders participate in environmental and corporate social responsibility (CSR) initiatives, it strengthens the bond between organisations and their communities, ultimately garnering societal support for sustainable practices. This reinforces the global importance of participatory methods in fostering environmental sustainability.

Community Participation and Project Sustainability

Research on community involvement in development projects, such as those focused on water and health infrastructure, indicates that greater levels of participation are linked to enhanced project sustainability and a sense of community ownership. While this research may not be exclusively focused on the South-South region, it offers valuable insights into how community engagement can influence sustainability outcomes in the context of Nigerian development.

Isang et al. (2025) conducted a study titled "Stakeholders' Engagement for Advancing a Sustainable Nigerian Construction Industry: The study titled "A Sustainable Development Goal-Driven Approach" found that engaging stakeholders effectively plays a crucial role in achieving sustainability goals in Nigeria's construction sector. It highlighted that when decision-making is participatory, actors collaborate, and communication flows continuously, the environmental and social performance of construction projects improves significantly. On the flip side, the research pointed out that failing to include stakeholders can lead to delays, higher costs, and less-than-ideal sustainability results.

In another study, Enechi & Pattberg (2025) explored "Stakeholder Motivations for Participation in Partnerships for Sustainable Development in Nigeria." They discovered that stakeholders are motivated to participate in multi-stakeholder partnerships due to shared interests, common sustainability goals, and institutional incentives. However, they also identified obstacles like power imbalances, a lack of trust, and poor institutional coordination. The authors emphasised that for participation to be meaningful, there must be transparent governance structures and a fair distribution of power among stakeholders.

Abatan, Adeboyejo, and Akindele (2025) conducted research titled "The Role of Stakeholders and Technological Innovations in Enhancing Waste Governance and Service Delivery." Using a mixed-methods approach that included surveys, interviews, and focus group discussions with community members, local authorities, and private waste managers, the study found that collaboration among stakeholders greatly enhances policy

implementation, accountability, and resource mobilisation in urban waste governance. They noted that community involvement boosts compliance with environmental regulations and encourages sustainable waste practices. However, the study also pointed out significant challenges, such as weak regulatory enforcement, low public awareness, and insufficient infrastructure. The authors concluded that effective waste governance relies on collaboration among multiple stakeholders and the integration of technological innovations.

Amuni, Karimi, and Patrick (2025) conducted a study called “Influence of Stakeholder Involvement in Monitoring and Evaluation on the Performance of Donor-Funded Projects in Informal Settlements in Kisumu County, Kenya.” They used a convergent parallel mixed-method design and gathered insights from 364 respondents. The results showed that when stakeholders are involved in monitoring and evaluation, it significantly boosts project performance, sustainability, and community ownership. Projects that engaged local stakeholders, such as youth groups and community leaders, demonstrated greater effectiveness and continuity. However, the researchers also noted that stakeholder inputs weren't always fully integrated into the decision-making processes, which limited the overall impact. They concluded that participatory monitoring and evaluation enhance transparency, accountability, and the sustainability of development projects.

In another study, Jomo, Ngugi, and Paul (2024) explored “Project Stakeholders’ Participation and Implementation of Water Projects in Kenya.” They employed a cross-sectional survey design, analysing responses from project staff across 178 water projects. Their findings revealed a strong link between stakeholder participation and effective project implementation. The study highlighted that involving stakeholders leads to better decision-making, improved project coordination, and enhanced sustainability outcomes. However, they also found that insufficient stakeholder engagement could lead to project delays and inefficiencies. Ultimately, the study emphasised that participatory approaches are crucial for successful project delivery and sustainability.

Lastly, Awuah and Bijimi (2024) carried out a study titled “Discovering the Core Stakeholders in the Nigerian Urban Water Supply System.” They surveyed water sector experts to pinpoint key stakeholders in water resource management. Their findings identified 15 core stakeholders essential for the urban water system's functionality, including regulators, investors, and community actors. The study highlighted that engaging stakeholders effectively boosts transparency, accountability, and sustainability in managing resources. It also pointed out that neglecting to identify and involve stakeholders can seriously compromise the effectiveness of policies and the outcomes for the environment.

Teshome et al. (2021) carried out a study called “Stakeholder Participation and Engagement in the Governance of Waste in Wolkite Town.” They used a case study approach to delve into the institutional and structural aspects of stakeholder engagement. Their findings indicated that top-down governance structures diminish stakeholder participation, which in turn leads to negative environmental results. The lack of decentralized decision-making restricted stakeholder accountability and responsibility.

Ultimately, the study emphasised that multi-level governance and inclusive participation frameworks are crucial for effective waste management and environmental sustainability.

Mapedza et al. (2023) explored the topic “The Role of Stakeholder Participation in Wetland Conservation in Urban Areas: A Case of Monavale Wetland.” By employing a mixed-methods approach, they investigated the roles of stakeholders in environmental conservation. Their findings revealed that stakeholder participation plays a vital role in conserving biodiversity, raising environmental awareness, and promoting sustainable resource use. They also identified challenges like urban encroachment and weak institutional coordination. The study concluded that collaborative stakeholder engagement is key to enhancing ecological sustainability and conservation outcomes.

Uzochukwu et al. (2026) conducted research titled “Designing Context-Specific Implementation Strategies to Improve WASH in Urban Low-Income Settlements in Nigeria.” They adopted a participatory co-design approach that involved various stakeholders. Their findings showed that co-design driven by stakeholders boosts the relevance, sustainability, and effectiveness of interventions. Community-led strategies significantly improved the adoption and long-term success of WASH programs. The study wrapped up by highlighting that engaging stakeholders inclusively is essential for development interventions that are both scalable and sustainable.

The literature as a whole underscores the importance of stakeholder participation in achieving environmental sustainability and successful development outcomes. Research conducted in Nigeria covering areas like construction, urban waste management, and multi-stakeholder partnerships shows that inclusive engagement boosts environmental accountability, project sustainability, and alignment with the Sustainable Development Goals (SDGs) (Filho & Brandli, 2025; Isang et al., 2025). Evidence from both national and comparative studies indicates that involving stakeholders in planning, implementation, and monitoring not only fosters a sense of ownership but also minimises conflict and strengthens environmental governance frameworks. Yet, there are still gaps in understanding the specific motivations and contextual factors that encourage meaningful participation, especially in South-South Nigeria. Filling these gaps could provide valuable insights for shaping policies and practices aimed at more inclusive and sustainable development efforts.

Methodology

This study employed a mixed-methods research design, allowing for a thorough examination of stakeholder participation and its effects on environmental sustainability by blending numerical data with rich contextual insights. The research took place in Nigeria’s South-South geopolitical zone, which includes states such as Rivers, Delta, Bayelsa, Akwa Ibom, Cross River, and Edo. These regions were chosen due to its environmental sensitivity and the high concentration of development initiatives, particularly in the oil and gas sector.

The population consisted of 120 community members from host communities impacted by development projects, 30 representatives from government agencies, 25

officials from oil and gas companies, and 25 members from civil society organisations and environmental groups. We used a mix of purposive and stratified random sampling techniques for this study. Topical case purposive sampling helped us identify key informants, including government and corporate stakeholders, while stratified random sampling made sure we had a good representation of community respondents from various states. To determine our sample size, we relied on the Krejcie and Morgan sample size calculator, which led us to a total of 200 participants.

We gathered information through a structured questionnaire that was given to community members and select stakeholders. We also conducted interviews with government officials, corporate representatives, and environmental experts. Additionally, focus group discussions (FGDs) were held with community stakeholders collaborating in the process. We also sourced data from government reports, corporate publications, and environmental assessment documents.

The questionnaire was designed using a four-point Likert scale to gauge stakeholder collaboration and environmental sustainability indicators. Our interview guide was semi-structured, allowing us the flexibility to delve deeper into stakeholder perspectives. To ensure validity and reliability, we had experts review our research instruments. We also tested reliability through a pilot study and used statistical measures like Cronbach's Alpha to confirm the internal consistency of the questionnaire items. The study employed descriptive statistics (such as frequencies, percentages, and mean scores) and inferential statistics (including correlation and regression analysis) to explore relationships between variables.

The data from interviews and FGDs were thematically analysed, which involved coding, categorising, and interpreting recurring patterns. We took ethical considerations seriously, obtaining informed consent from all participants. The data collected was strictly for academic purposes.

Data Presentation

Table 1: Demographic Distribution of Respondents

Variable	Category	Frequency (%)
Gender	Male	120 (60%)
	Female	80 (40%)
Age	18–25	40 (20%)
	26–35	70 (35%)
	36–45	50 (25%)
	46+	40 (20%)
Education	Primary	20 (10%)
	Secondary	60 (30%)
	Tertiary	120 (60%)

Table 2: Correlation Analysis (Pearson r)

Variables	N	r	p-value
Stakeholder Collaboration vs Environmental Sustainability	200	0.68	0.001

Table 3: Regression Analysis

Model	R	R ²	Beta (β)	t-value	p-value
Stakeholder Collaboration → Environmental Sustainability	0.68	0.46	0.62	5.87	0.000

Table 4: Stakeholder collaboration

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean Score	Decision
Stakeholders are involved in decision-making.	80 (40%)	70 (35%)	30 (15%)	20 (10%)	3.05	Agree
Community input influences project design.	75 (37.5%)	65 (32.5%)	35 (17.5%)	25 (12.5%)	2.95	Agree
Communication among stakeholders is effective.	70 (35%)	80 (40%)	30 (15%)	20 (10%)	2.90	Agree
Stakeholders collaborate in environmental monitoring.	85 (42.5%)	60 (30%)	35 (17.5%)	20 (10%)	3.08	Agree

Table 5: Environmental Sustainability Indicators

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean Score	Decision
Projects reduce environmental pollution.	78 (39%)	72 (36%)	30 (15%)	20 (10%)	3.02	Agree

Natural resources are sustainably managed.	82 (41%)	68 (34%)	30 (15%)	20 (10%)	3.06	Agree
Biodiversity is protected in project areas.	74 (37%)	76 (38%)	30 (15%)	20 (10%)	3.00	Agree

Table 6: Qualitative Findings (Mixed Methods Integration)

Theme	Key Insight
Level of collaboration	Collaboration exists but largely consultative rather than decision-driven.
Communication	Noticeable gaps between communities, government, and corporations.
Institutional Framework	Weak enforcement of environmental policies.
Community Awareness	High awareness but limited influence on decisions

Analysis of Findings

The analysis of the data gathered from both quantitative and qualitative sources sheds light on the important connection between stakeholder collaboration and environmental sustainability in development projects throughout Nigeria's South-South region. The descriptive statistics show that most respondents recognise varying degrees of stakeholder involvement in these initiatives, though the quality and depth of that participation can vary widely from one community or sector to another.

When we look at the correlation analysis, it reveals a strong positive link between stakeholder participation and environmental sustainability ($r = 0.68$, $p = 0.001$). This indicates that when stakeholders are more involved, we tend to see better environmental outcomes, like less pollution, improved resource management, and greater ecological awareness within communities.

Additionally, the regression analysis points out that stakeholder collaboration significantly impacts environmental sustainability ($\beta = 0.62$, $t = 5.87$, $p < 0.05$). This means that the level of stakeholder engagement is a strong predictor of how sustainable development initiatives will be in the region.

The qualitative insights gathered from interviews and focus group discussions back up these quantitative findings. Three key themes emerged: community engagement, communication gaps, and institutional constraints. Participants noted that while there is some level of participation in development initiatives, it often stops at consultation rather than extending to active decision-making involvement. They also pointed out that poor communication among stakeholders and weak institutional frameworks are significant obstacles to effective participation.

Research Question 1: To what extent are stakeholders involved in development initiatives across Nigeria's South–South region?

The study shows that while stakeholder participation is present, it tends to be inconsistent and, in many instances, quite superficial. While some development projects do include mechanisms for community consultation, true participatory engagement where stakeholders can genuinely influence decision-making remains quite limited. This observation aligns with qualitative evidence suggesting that participation often feels more like a token gesture rather than a truly empowering experience. The takeaway here is that stakeholder involvement hasn't been fully integrated into development initiatives across the region.

Research Question 2: What's the connection between stakeholder collaboration and environmental sustainability in development projects in the region?

The correlation analysis ($r = 0.68$, $p = 0.001$) reveals a strong, positive, and statistically significant relationship between stakeholder collaboration and environmental sustainability. This suggests that when participation levels are higher, environmental outcomes tend to improve. This finding backs up existing theories that argue inclusive stakeholder engagement boosts environmental accountability and encourages sustainable practices.

Hypothesis One (H_{01}): Stakeholder collaboration has no significant relationship with environmental sustainability.

The correlation analysis results led us to reject the null hypothesis (H_{01}). With a p-value below 0.05, the study concludes that there is indeed a significant relationship between stakeholder participation and environmental sustainability.

Hypothesis Two (H_{02}): Stakeholder collaboration has no significant effect on environmental sustainability.

The regression analysis ($\beta = 0.62$, $p < 0.05$) indicates that stakeholder participation significantly positively impacts environmental sustainability. Thus, we reject the null hypothesis (H_{02}). This means that stakeholder collaboration not only correlates with but also predicts better environmental sustainability outcomes in development initiatives.

Research Question 3: What are the barriers to effective stakeholder collaboration in development initiatives in South-South Nigeria?

The thematic analysis brought to light several key constraints, such as the power imbalances that exist between multinational corporations, government agencies, and local communities; poor communication channels; weak institutional and regulatory frameworks; and the limited capacity of community stakeholders. Together, these factors hinder meaningful participation and diminish the effectiveness of stakeholder engagement processes.

The combination of quantitative and qualitative findings shows that while stakeholder participation is vital for promoting environmental sustainability, its

effectiveness is hampered by structural, institutional, and communication challenges in the South-South region.

Conclusion

This study concludes that stakeholder participation is a crucial factor in achieving environmental sustainability in development initiatives throughout South-South Nigeria. The empirical evidence gathered from both quantitative and qualitative analyses confirms that genuine stakeholder engagement significantly improves environmental outcomes, fosters sustainable resource management, and encourages community ownership of development projects.

However, the findings also highlight that stakeholder collaboration in the region is often insufficient, frequently marked by tokenism, limited inclusion, and weak institutional support. These shortcomings undermine the potential advantages of participatory approaches and contribute to ongoing environmental issues like pollution, resource depletion, and community dissatisfaction.

The rejection of the null hypotheses further reinforces that stakeholder collaboration has both a significant relationship with and a notable impact on environmental sustainability. This emphasises the need to integrate participatory principles into the planning, implementation, and evaluation of development initiatives.

Recommendations

1. Government and development agencies need to make stakeholder collaboration a core part of their policies and project guidelines. This way, we can ensure that everyone has a voice throughout all stages of development initiatives.
2. It is essential to roll out capacity-building programs that equip local communities with the knowledge and skills they need to actively participate in decision-making and keep an eye on environmental issues.
3. Development actors should set up clear, open, and ongoing communication channels to make it easier for stakeholders to share information and clear up any confusion. Additionally, we should strengthen a regulatory body to uphold environmental standards and ensure that corporations and development agencies meet participatory requirements.
4. Governments, private sector players, and civil society organisations should work together to create partnerships that promote shared responsibility, accountability, and collaborative problem-solving in development efforts.
5. Development planning should weave in indigenous and local knowledge alongside scientific methods to boost environmental sustainability and cultural relevance. Plus, we should implement mechanisms like public consultations, community feedback systems, and independent monitoring to build trust and accountability among all stakeholders.

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