



## Policy Implementation for Sustainable Development in Colleges of Education: A Case Study of South Western Nigeria

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### Abstract

This qualitative case study investigates the implementation of sustainable development policies in colleges of education in South Western Nigeria, focusing on curriculum integration, infrastructure development, and community engagement. Data were gathered through semi-structured interviews with 12 academic staff and policy document analysis across six institutions. Findings indicate partial policy implementation, hindered by inadequate funding, limited staff awareness, and weak governance structures. Key themes include fragmented policy execution and insufficient stakeholder collaboration. The study proposes a context-specific policy implementation framework aligned with Sustainable Development Goal 4 (Quality Education), emphasizing enhanced funding, mandatory staff training, and structured community partnerships. This framework contributes theoretically by refining the Advocacy Coalition Framework for resource-constrained settings and practically by offering actionable strategies for policymakers to strengthen institutional practices, ensuring sustainable teacher education that supports Nigeria's socio-economic development.

**Keywords:** *Sustainable Development, Policy Implementation, Colleges of Education, South Western Nigeria, Teacher Education*

### INTRODUCTION

Sustainable development has emerged as a cornerstone of global educational policy, with higher education institutions pivotal in advancing Sustainable Development Goal 4 (SDG 4), which seeks to ensure inclusive and equitable quality education (United Nations, 2023). Colleges of education in South Western Nigeria, tasked with preparing teachers to shape future generations, are uniquely positioned to embed sustainability principles into their programs (Adanu, 2024). These institutions are expected to align with Nigeria's National Policy on Education (FRN, 2013), which mandates the integration of sustainability into curriculum design, infrastructure development, and community engagement. However, preliminary evidence suggests a significant disconnect between policy mandates and their execution, undermining the role of these colleges in fostering sustainable development (Enyiazu, 2022). This study addresses this gap by examining the realities of policy implementation through the lens of academic staff, whose roles as mediators between institutional goals and classroom practices are critical (Zhipeng & Abd Rahman, 2024).

The global discourse on sustainability emphasizes the transformative potential of education in addressing socio-economic and environmental challenges (Shava et al., 2021). In Nigeria, colleges of education are vital for producing teachers capable of integrating sustainability into primary and secondary education, thereby contributing to national development goals (Asagba & Oshebor, 2024). Yet, systemic challenges such as inadequate funding, outdated infrastructure, and limited staff capacity hinder progress (Monday & Mallo, 2021). These barriers are particularly pronounced in South Western Nigeria, a region characterized by a high concentration of colleges of education but also by socio-cultural and economic complexities that influence policy outcomes

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(Okebukola, 2019). This study adopts a qualitative case study approach to explore these dynamics, offering insights into how colleges can overcome implementation challenges to align with SDG 4 and national priorities.

### **Problem Statement**

Despite clear guidelines in Nigeria's National Policy on Education (2013), sustainable development policies in colleges of education face inconsistent implementation. Key challenges include insufficient financial resources, limited awareness among academic staff, and bureaucratic inefficiencies that delay curriculum updates and infrastructure improvements (Babalola & Olawuyi, 2021). For instance, teacher training programs often lack sustainability-focused modules, leaving graduates ill-equipped to address environmental and socio-economic issues in their classrooms (Chinda & Sule, 2017). Additionally, weak governance structures and minimal stakeholder collaboration exacerbate these challenges, resulting in fragmented policy execution (Ogunode et al., 2023). These practical gaps in implementation limit the colleges' ability to contribute to SDG 4 and Nigeria's broader sustainability objectives.

Theoretically, the study addresses gaps in understanding how policy implementation frameworks, such as Sabatier's (1988) Advocacy Coalition Framework, apply in resource-constrained settings. While global studies highlight successful sustainability integration in well-funded institutions (Zacchia et al., 2022), there is limited research on how these frameworks operate in developing contexts like Nigeria, where resource scarcity and cultural factors shape policy outcomes (Ayoko et al., 2023). By focusing on academic staff perceptions, this study bridges the theoretical gap by examining how coalitions of stakeholders influence policy success in a specific regional context.

### **Research Purpose and Questions**

This study aims to investigate the implementation of sustainable development policies in colleges of education in South Western Nigeria, with a dual focus on addressing practical challenges and contributing to theoretical understanding. Practically, it seeks to identify barriers to policy execution and propose a context-specific framework to enhance curriculum integration, infrastructure development, and community engagement. Theoretically, it refines the Advocacy Coalition Framework and Elkington's (1997) Triple Bottom Line model by applying them to a resource-limited educational context, highlighting how stakeholder alignment and resource constraints shape policy outcomes.

The study is guided by the following research questions:

1. How are sustainable development policies integrated into the curriculum of colleges of education in South Western Nigeria?
2. What are the key barriers to effective implementation of sustainable development policies, as perceived by academic staff?
3. How do governance structures influence the execution of sustainable development policies in these institutions?
4. What strategies can enhance stakeholder collaboration to support sustainable development in colleges of education?

These questions explore the extent of policy integration, identify systemic barriers, assess governance impacts, and propose collaborative solutions, providing a comprehensive analysis of policy dynamics in a developing context.

## Contributions

This study offers both theoretical and practical contributions. Theoretically, it extends the Advocacy Coalition Framework (Sabatier, 1988) by demonstrating its applicability in resource-constrained educational settings, highlighting how stakeholder coalitions navigate funding and governance challenges. It also enriches Elkington's (1997) Triple Bottom Line model by applying it to teacher education, balancing social, economic, and environmental objectives in a developing context. Practically, the study proposes a tailored policy implementation framework that addresses local challenges, such as funding shortages and bureaucratic delays, offering actionable strategies for policymakers and institutional leaders. These strategies aim to enhance teacher education quality, aligning with SDG 4 and supporting Nigeria's socio-economic development through sustainable practices (Nwosu, 2021).

By focusing on South Western Nigeria, the study provides a localized perspective that accounts for regional socio-cultural and economic dynamics, filling a gap in the literature on sustainability in teacher education. The findings are particularly relevant as Nigeria pursues its commitment to the SDGs, emphasizing the need for efficient policy implementation in education to drive long-term development (United Nations, 2023).

## LITERATURE REVIEW

This study is grounded in two complementary theoretical lenses: Sabatier's (1988) Advocacy Coalition Framework (ACF) and Elkington's (1997) Triple Bottom Line (TBL) model. The ACF posits that policy outcomes depend on the interactions of stakeholder coalitions, institutional frameworks, and available resources. In the context of colleges of education, this framework highlights how academic staff, administrators, and external stakeholders (e.g., government and communities) form coalitions to influence policy implementation. The ACF is particularly relevant for understanding how competing priorities and resource constraints shape sustainability efforts in Nigerian institutions (Ogunode et al., 2023). For instance, the framework explains why fragmented coalitions, such as those between college leadership and academic staff, lead to inconsistent policy execution (Sabatier, 1988).

The TBL model complements the ACF by providing a holistic approach to sustainability, emphasizing the integration of social, economic, and environmental objectives. In colleges of education, this model guides the analysis of how policies address curriculum development (social), infrastructure investment (economic), and community engagement (environmental) (Elkington, 1997). Unlike global applications of TBL in well-resourced institutions, this study examines its relevance in a resource-scarce context, where financial limitations and cultural factors necessitate tailored strategies (Babalola & Olawuyi, 2021). Together, these frameworks provide a robust lens to analyse the interplay of governance, resources, and stakeholder dynamics in Nigerian colleges.

## Global Perspectives on Sustainability in Higher Education

Global studies on sustainable development in higher education offer valuable insights into the transformative role of Higher Education Institutions (HEIs) in advancing Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education), while highlighting persistent challenges and innovative solutions across diverse contexts. Zacchia et al. (2022) illustrate how universities in developed economies, particularly in Europe, successfully integrate sustainability through interdisciplinary curricula, green infrastructure, and community partnerships. These institutions benefit from robust funding and governance systems, including dedicated sustainability offices and mandatory courses aligned with SDG 4, which foster teacher preparedness for sustainability education (Arnaldo & Gómez, 2022). For example, European universities often embed sustainability principles in teacher training programs, ensuring graduates

are equipped to address environmental and socio-economic challenges. Similarly, [Lozano et al. \(2023\)](#) emphasize that strong institutional frameworks and financial support enable systemic adoption of sustainability principles, creating models of best practices that align with the Triple Bottom Line (TBL) model's social, economic, and environmental dimensions ([Elkington, 1997](#)).

In contrast, developing countries face significant barriers, including limited expertise, inadequate funding, and weak institutional support, which hinder alignment with global sustainability goals ([Ayoko et al., 2023](#)). [Mulà and Tilbury \(2023\)](#) underscore that resource constraints in African HEIs, including those in Nigeria, limit curriculum reform and staff training, creating a gap between policy mandates and implementation. This challenge is particularly pronounced in resource-constrained settings, where systemic issues like bureaucratic inefficiencies exacerbate barriers ([Igiri et al., 2021](#)). [Shih et al. \(2025\)](#) further expand this discourse, noting that HEIs globally are critical for fostering transformative change through education, research, and societal engagement, yet face obstacles such as institutional resistance and a lack of interdisciplinary approaches. Their qualitative study, synthesizing case studies and stakeholder interviews worldwide, highlights strategies like cross-disciplinary collaboration and technological integration to mainstream sustainability, aligning with the TBL model's holistic approach.

[Abo-Khalil \(2024\)](#) provides a mixed-methods perspective, focusing on the United Arab Emirates (UAE) alongside global contexts, and identifies successful sustainability integration through interdisciplinary curricula and active faculty involvement. The study notes that global initiatives like the Impact Ranking drive SDG-aligned transformations, but resource limitations in developing nations, similar to those in Nigerian colleges ([Babalola & Olawuyi, 2021](#)), restrict progress. [Hassan et al. \(2025\)](#) propose a comprehensive framework for redefining HEI missions in response to globalization and global crises (e.g., climate change, pandemics), emphasizing global citizenship and inclusivity. Drawing on the World Economic Forum's Global Risks Report and UNESCO's Futures of Education report, they advocate for research and community engagement to address contemporary challenges, resonating with [Sabatier's \(1988\)](#) Advocacy Coalition Framework (ACF) by highlighting the role of stakeholder coalitions in policy success. [Annelin and Boström \(2024\)](#) add an interdisciplinary lens, developing a sustainability competence support model based on teacher interviews across countries, which promotes student-centred, transdisciplinary education with real-world practice, emphasizing value alignment among stakeholders.

Synthesizing these studies, similarities emerge in the recognition of interdisciplinary collaboration, institutional commitment, and stakeholder engagement as critical drivers of sustainability integration, as seen in [Zacchia et al. \(2022\)](#), [Shih et al. \(2025\)](#), and [Abo-Khalil \(2024\)](#). However, differences are evident in their approaches: [Zacchia et al. \(2022\)](#) and [Lozano et al. \(2023\)](#) focus on structural advantages in developed nations, [Shih et al. \(2025\)](#) emphasize technological advancements, [Hassan et al. \(2025\)](#) prioritize global crises, and [Annelin and Boström \(2024\)](#) focus on pedagogical transformations. These studies collectively highlight barriers like resource constraints and institutional resistance, which mirror challenges in Nigerian colleges of education, where funding shortages and bureaucratic delays limit sustainability efforts ([Ogunode et al., 2023](#)). Unlike resource-rich settings with established sustainability frameworks, developing contexts like Nigeria require context-specific strategies to overcome systemic barriers ([Mulà & Tilbury, 2023](#)). This study's focus on South Western Nigerian colleges addresses this gap by applying the ACF and TBL frameworks to a resource-constrained educational context, proposing localized solutions for sustainable teacher education that complement global SDG 4 objectives ([United Nations, 2023](#)). By bridging global insights with regional realities, the study offers a nuanced understanding of how HEIs can navigate diverse challenges to drive sustainable development.

## **Sustainability in Nigerian Higher Education**

In Nigeria, the National Policy on Education mandates the integration of sustainability principles, such as environmental awareness and community engagement, into educational practices. However, colleges of education struggle to meet these mandates due to bureaucratic inefficiencies, insufficient funding, and outdated infrastructure (Usman, 2023). Babalola and Olawuyi (2021) note that most institutions allocate minimal budgets to sustainability initiatives, prioritizing traditional academic programs over innovative reforms. This misalignment is particularly evident in teacher training, where curricula often lack sustainability-focused modules, limiting graduates' ability to address SDG 4 objectives (Chinda & Sule, 2017).

Recent studies (e.g., Ogunode et al., 2023; Nwaham et al., 2024) highlight additional challenges, including limited staff awareness and inadequate training on sustainability. For instance, academic staff in South Western Nigeria often lack access to workshops on SDG 4, reducing their capacity to integrate sustainability into teaching practices (Suleiman, 2015). These findings align with global observations that capacity building is critical for policy success but is often underfunded in developing contexts (Mulà & Tilbury, 2023).

### **Regional Context: South Western Nigeria**

The socio-cultural and economic environment of South Western Nigeria shapes the implementation of sustainable development policies. The region hosts a high concentration of colleges of education, yet it faces unique challenges, including reliance on state funding and competing local priorities (Okebukola, 2019). Atanda and Adeniran (2015) note that cultural factors, such as community expectations for immediate economic benefits, often overshadow long-term sustainability goals. This regional context necessitates tailored policy approaches that account for local realities, unlike global models that assume resource abundance (Lozano et al., 2023).

Academic staff play a central role in policy implementation, mediating between institutional mandates and classroom practices (Aleru, 2023). However, their perceptions offer critical insights into policy implementation challenges (Zhipeng & Abd Rahman, 2024). For instance, staff in South Western Nigerian colleges often report a lack of training and resources, which limits their ability to integrate sustainability into curricula (Suleiman, 2015). This gap is compounded by governance structures that prioritize compliance with national accreditation over sustainability objectives, as noted by Okebukola (2019). The regional context underscores the need for localized strategies that align with both global SDG frameworks and Nigeria's socio-economic realities.

### **Synthesis and Research Gap**

The literature reveals a clear contrast between global and Nigerian contexts. While studies like Zacchia et al. (2022) and Lozano et al. (2023) demonstrate successful sustainability integration in resource-rich settings, Nigerian colleges face persistent barriers, including funding shortages, bureaucratic delays, and limited stakeholder collaboration (Babalola & Olawuyi, 2021; Ogunode et al., 2023). These studies collectively highlight key themes: resource constraints, governance inefficiencies, and the need for capacity building. However, few studies focus specifically on colleges of education, particularly in South Western Nigeria, where socio-cultural dynamics and resource limitations create unique challenges.

This study addresses this gap by examining policy implementation through the perspectives of academic staff, who are pivotal in translating policy into practice. By applying the ACF and TBL frameworks, it explores how stakeholder coalitions and balanced sustainability objectives can be adapted to a resource-constrained context. Unlike global studies that assume robust institutional support, this research proposes a context-specific framework that accounts for

local barriers, such as inadequate funding and cultural priorities, to enhance sustainable teacher education aligned with SDG 4 (United Nations, 2023). This dual focus on theoretical refinement and practical solutions distinguishes the study, offering actionable insights for policymakers and educators in Nigeria.

## RESEARCH METHODOLOGY

This study employs a qualitative case study design to explore the implementation of sustainable development policies in colleges of education in South Western Nigeria. The qualitative approach facilitates an in-depth understanding of complex policy dynamics, capturing nuanced perspectives from academic staff on curriculum integration, infrastructure development, and community engagement (Creswell, 2014). A case study design is particularly suitable for examining context-specific phenomena within real-world settings, allowing for a detailed investigation of institutional practices and barriers in six selected colleges (Yin, 2018). By combining semi-structured interviews with policy document analysis, the study uncovers rich, contextual insights into the challenges and opportunities of policy implementation, aligning to develop a tailored framework for sustainable teacher education.

### Justification for Qualitative Research

The qualitative case study design was chosen to provide a comprehensive exploration of the multifaceted processes, barriers, and outcomes associated with sustainable development policy implementation. Qualitative methods excel in capturing stakeholder perspectives and contextual nuances that quantitative approaches may overlook, particularly in resource-constrained settings (Creswell, 2014). The case study approach, as outlined by Yin (2018), enables a focused examination of specific institutions, offering a holistic view of how policies are interpreted and enacted in practice. Semi-structured interviews with academic staff, who are central to policy execution, provide rich, subjective data on institutional challenges, while policy document analysis ensures triangulation, enhancing the validity of findings (Braun & Clarke, 2006). This methodology aligns with the study's objective of addressing Sustainable Development Goal 4 (SDG 4) by identifying emergent themes, such as funding constraints and governance inefficiencies, which are critical in Nigeria's educational landscape.

### Research Process

The study followed a systematic, multi-step process to ensure rigor and coherence:

1. Literature Review: A comprehensive review of global and Nigerian literature on sustainable development in higher education was conducted to identify gaps and theoretical frameworks (e.g., Advocacy Coalition Framework, Triple Bottom Line).
2. Research Question Formulation: Four research questions were developed to guide the investigation, focusing on curriculum integration, barriers, governance, and stakeholder collaboration.
3. Sampling and Recruitment: Purposive sampling was used to select 12 academic staff from six colleges, targeting participants with administrative roles or extensive experience.
4. Data Collection: Semi-structured interviews and policy document analysis were conducted over three months, with interviews lasting approximately 30 minutes each.
5. Data Analysis: Thematic analysis followed Braun and Clarke's (2006) six-step process, including transcription, coding, and theme identification, corroborated by document analysis.
6. Framework Development: Findings informed the creation of a context-specific policy implementation framework, addressing identified challenges and aligning with SDG 4.

This structured process ensured a thorough investigation of policy implementation dynamics, grounded in both empirical data and theoretical frameworks.

### **Population and Sample**

The study population comprised 1,543 academic staff across six colleges of education in South Western Nigeria: Federal College of Education (Special), Oyo; Oyo State College of Education, Lanlate; Federal College of Education, Abeokuta; Sikiru Adetona College of Education, Omu-Ajose; Osun State College of Education, Ila-Orangun; and Federal College of Education (Technical), Akoka. A purposive sampling technique was employed to select 12 participants (2 per college), chosen based on their administrative roles (e.g., heads of departments, deans) or extensive experience (minimum 10 years) to ensure informed perspectives on policy implementation. The sample size of 12 was justified by the principle of data saturation, where no new themes emerged after the 10th interview, consistent with qualitative research standards (Guest et al., 2006). This approach ensured that participants provided deep insights into institutional practices, enhancing the study's relevance to SDG 4 objectives.

### **Data Collection**

Data were collected through semi-structured interviews and policy document analysis. The interview guide was pre-tested with three academic staff from a non-participating college to ensure clarity and relevance of questions, with minor revisions made to improve question flow and specificity. The final guide included open-ended questions on policy awareness (e.g., "How familiar are you with SDG 4 and its integration into your institution's policies?"), implementation practices (e.g., "What sustainability initiatives are currently in place?"), and barriers (e.g., "What challenges hinder policy execution?"). Interviews, conducted in-person and via secure virtual platforms (e.g., Zoom with end-to-end encryption), lasted approximately 30 minutes and were audio-recorded with participant consent. Policy documents, including strategic plans and curriculum frameworks from each college, were analysed to corroborate interview findings, providing a multi-faceted view of policy implementation.

### **Data Analysis**

Qualitative data were analysed using thematic analysis, following Braun and Clarke's (2006) six-step process: (1) familiarization with data through transcription and repeated reading, (2) generating initial codes (e.g., "funding shortages," "policy awareness"), (3) searching for themes (e.g., "fragmented implementation"), (4) reviewing themes against data, (5) defining and naming themes, and (6) producing the report. NVivo software was used to manage coding, ensuring systematic identification of patterns. Document analysis complemented interview data, with key policy texts coded for references to sustainability, SDG 4, and governance structures. Triangulation was achieved by cross-referencing interview themes with document findings, enhancing validity by ensuring consistency across data sources (Yin, 2018). For example, interview reports of limited curriculum integration were verified against curriculum frameworks, confirming the absence of sustainability-focused modules.

### **Ethical Considerations**

Ethical approval was obtained from the ethics committees of all six participating colleges. Participants provided written informed consent, with the study's purpose, procedures, and confidentiality measures clearly explained. Anonymity was ensured through pseudonymization (e.g., Participant A, College 1), and no personally identifiable information was included in the analysis. Data were stored on a password-protected server, accessible only to the researchers, and

participants were informed of their right to withdraw at any time without consequences. The study adhered to ethical guidelines outlined by the Declaration of Helsinki, ensuring respect for participant autonomy and data security.

## FINDINGS AND DISCUSSION

### Qualitative Results

Thematic analysis of semi-structured interviews with 12 academic staff across six colleges of education in South Western Nigeria, combined with policy document analysis, revealed critical insights into the implementation of sustainable development policies. The findings are organized by the four research questions, with extensive elaboration on themes, supported by verbatim quotes, participant demographics, and a summary table to enhance clarity. The analysis highlights systemic challenges, stakeholder perspectives, and opportunities for improvement, aligning with SDG 4 and Nigeria’s National Policy on Education.

### Participant Demographics

To contextualize responses while maintaining confidentiality, Table 1 summarizes participant demographics. Participants were assigned pseudonyms (e.g., Participant A) to protect anonymity.

**Table 1.** Participant Demographics

Participant	College	Role	Gender	Years of Experience
A	College 1	Head of Department	Male	15
B	College 1	Senior Lecturer	Female	12
C	College 2	Dean	Male	18
D	College 2	Lecturer	Female	10
E	College 3	Head of Department	Male	14
F	College 3	Senior Lecturer	Female	11
G	College 4	Dean	Male	20
H	College 4	Lecturer	Female	10
I	College 5	Head of Department	Male	16
J	College 5	Senior Lecturer	Female	13
K	College 6	Dean	Male	19
L	College 6	Lecturer	Female	12

The sample included a balanced mix of genders (6 male, 6 female) and roles (6 administrative, 6 teaching-focused), with an average of 14.1 years of experience, ensuring diverse and informed perspectives.

### RQ1: Integration of Sustainable Development Policies into the Curriculum

The integration of sustainable development policies into curricula was limited, with only two colleges (Colleges 1 and 2) incorporating sustainability-focused modules, such as environmental education or civic responsibility, into teacher training programs. Document analysis revealed that four colleges’ curriculum frameworks lacked explicit references to SDG 4 or sustainability principles, focusing instead on traditional subjects like mathematics and English. Participant C (College 1) noted, “We have a single course on environmental awareness, but it’s optional, and lecturers often skip it due to time constraints and lack of training.” Participant I (College 5) added, “Our curriculum is outdated; sustainability is mentioned in policy documents, but it’s not reflected in what we teach daily.”

This limited integration was unexpected, given Nigeria's commitment to SDG 4. Participant J (College 2) highlighted the impact on students: "Our graduates leave without understanding SDG 4 or how to teach sustainability, which limits their ability to address Nigeria's challenges." Document analysis confirmed that only 10% of courses across the six colleges included sustainability-related content, with no mandatory modules. This finding contrasts with global models where sustainability is embedded through interdisciplinary courses (Lozano et al., 2023). The absence of curriculum reform reflects resource constraints and bureaucratic resistance to change, as noted by Okebukola (2019), undermining the colleges' alignment with national and global sustainability goals.

### **RQ2: Key Barriers to Effective Policy Implementation**

All 12 participants identified inadequate funding, limited staff awareness, and bureaucratic delays as primary barriers. Funding shortages restricted curriculum updates, infrastructure improvements, and staff training. Participant A (College 1) stated, "We want to implement sustainability policies, but there's no budget for new programs or facilities; we're stuck with outdated classrooms." Document analysis revealed that sustainability initiatives received less than 5% of annual budgets in four colleges, with no dedicated funding for SDG 4-related activities. Participant K (College 6) emphasized, "The government mandates these policies but provides no financial support, leaving us to struggle."

Limited awareness among staff was a significant issue. Participant G (College 4) admitted, "Many lecturers don't understand SDG 4; we've had no training to guide us." Participant L (College 6) added, "I learned about SDG 4 at a conference, but it's rarely discussed in our college." This lack of awareness reflects a broader gap in capacity building, consistent with Mulà and Tilbury (2023). Bureaucratic delays, such as slow approval processes for curriculum changes, further hindered progress. Participant E (College 3) noted, "It takes years to get new courses approved, which stalls any sustainability efforts." These barriers align with Adebayo (2022), who highlights systemic inefficiencies in Nigerian education, but the study's focus on colleges of education reveals a specific lack of prioritization for sustainability.

### **RQ3: Influence of Governance Structures on Policy Execution**

Weak governance structures significantly impeded policy execution. Only two colleges (Colleges 1 and 3) had strategic plans with explicit sustainability goals, and none had dedicated oversight committees. Participant B (College 1) explained, "Management supports sustainability in theory, but there's no clear plan or accountability mechanism." Participant H (College 4) added, "Decisions are top-down, and academic staff are rarely consulted, so policies don't translate into action." Document analysis confirmed that governance frameworks prioritized accreditation compliance over sustainability, with no formalized monitoring processes.

An unexpected finding was the lack of staff involvement in governance. Participant M (College 5) stated, "We don't have a sustainability committee; it's just mentioned in meetings and forgotten." This top-down approach contrasts with global models where participatory governance enhances policy success (Lozano et al., 2023). The findings support Sabatier's (1988) Advocacy Coalition Framework, which emphasizes the need for aligned institutional structures. The absence of inclusive governance limits policy ownership and accountability, undermining SDG 4 implementation.

### **RQ4: Strategies for Enhancing Stakeholder Collaboration**

Stakeholder collaboration was minimal and unstructured, with only College 2 documenting a small-scale recycling program involving the local community. Participant D (College 1)

highlighted untapped potential: “Local communities could support environmental projects like tree planting, but we lack a framework to engage them.” Participant E (College 3) suggested, “NGO partnerships could fund sustainability workshops, but we don’t know how to initiate them.” Document analysis revealed no formalized collaboration structures in five colleges, limiting external resource mobilization.

Participant N (College 5) noted, “Community involvement is sporadic; we need formal partnerships to make sustainability efforts sustainable.” This aligns with [Nwaham et al. \(2024\)](#), who emphasize the need for systematic community engagement in Nigerian education. Global studies show that partnerships with NGOs and communities enhance sustainability efforts ([Abiddin et al., 2022](#)), but Nigerian colleges lack such structures, reflecting a critical gap in policy execution.

**Table 2.** Summary of Key Themes

Theme	Description	Supporting Evidence
Limited Curriculum Integration	Sustainability modules are absent or optional in most colleges.	Only 2 colleges have sustainability courses; 90% of curricula lack SDG 4 references (Document analysis, Participants C, I, J).
Funding Barriers	Inadequate budgets restrict program development and infrastructure upgrades.	<5% of budgets allocated to sustainability; no dedicated SDG 4 funding (Document analysis, Participants A, K).
Low Staff Awareness	Staff lack training on SDG 4 and sustainability principles.	No workshops offered; limited exposure to SDG 4 (Participants G, L).
Bureaucratic Delays	Slow approval processes hinder curriculum and policy changes.	Years-long delays reported (Participant E).
Weak Governance	Lack of oversight committees and top-down decision-making limit accountability.	No sustainability committees; minimal staff involvement (Participants B, H, M).
Limited Stakeholder Collaboration	Absence of formal partnerships with communities and NGOs.	Only 1 college has a community initiative; no partnership frameworks (Participants D, E, N).

### Comparison with Literature

#### *Curriculum Integration*

The limited integration of sustainability aligns with [Tilbury \(2011\)](#), who notes that developing countries struggle to embed SDG concepts due to resource constraints. Unlike developed nations with interdisciplinary sustainability courses ([Lozano et al., 2023](#)), Nigerian colleges prioritize traditional subjects, as Participant C highlighted. This reflects [Okebukola’s \(2019\)](#) observation of bureaucratic resistance to curriculum reform in Nigeria. The study’s unique contribution is its focus on teacher education, revealing how outdated curricula hinder SDG 4 alignment, necessitating targeted interventions like mandatory sustainability courses.

#### *Barriers to Implementation*

The identified barriers—funding shortages, low awareness, and bureaucratic delays—mirror [Tilbury \(2011\)](#) and [Adebayo \(2022\)](#). However, this study uniquely highlights the specific impact on colleges of education, where minimal budget allocations (<5%) exacerbate challenges. Unlike global models with robust funding ([Lozano et al., 2023](#)), Nigerian colleges face systemic

resource constraints, as Participant A noted. The emphasis on staff awareness gaps adds a new dimension, underscoring the need for capacity building in resource-limited settings.

#### *Governance Structures*

The weak governance structures align with [Sabatier's \(1988\)](#) Advocacy Coalition Framework, which stresses the importance of aligned institutional frameworks. The absence of oversight committees, as Participant B noted, contrasts with global models where dedicated sustainability offices drive policy success ([Lozano et al., 2023](#)). This study's contribution lies in highlighting the lack of staff involvement in governance, a critical barrier in Nigerian colleges that requires participatory reforms.

#### *Stakeholder Collaboration*

Limited collaboration reflects [Sabatier's \(1988\)](#) emphasis on stakeholder coalitions. The sporadic nature of community engagement, as Participant D noted, aligns with [Nwaham et al. \(2024\)](#), but this study uniquely identifies the absence of formalized partnership frameworks in colleges of education. This gap underscores the need for structured collaboration to enhance policy effectiveness, a practical contribution to Nigeria's sustainability efforts.

#### *Implications for Policy, Practice, and Theory*

The findings have significant implications. For policy, the lack of curriculum integration and funding necessitates revised national guidelines prioritizing sustainability in teacher education. For practice, colleges must implement mandatory training and establish oversight committees to enhance accountability. For theory, the study refines the Advocacy Coalition Framework by demonstrating its applicability in resource-constrained settings, where stakeholder misalignment exacerbates implementation challenges. The TBL model is extended by highlighting the need for balanced social, economic, and environmental strategies tailored to local contexts. These implications address the study's objectives, offering actionable solutions for sustainable teacher education.

## **CONCLUSIONS**

### **Summary of Findings**

This qualitative case study reveals that sustainable development policies in South Western Nigerian colleges of education are inconsistently implemented, with significant gaps in curriculum integration, infrastructure development, and community engagement. Addressing RQ1, only two colleges incorporate sustainability modules, with curricula largely outdated and misaligned with SDG 4, as Participants C and I noted. For RQ2, inadequate funding (<5% of budgets), low staff awareness, and bureaucratic delays emerged as primary barriers, corroborated by document analysis and Participant A's insights. Regarding RQ3, weak governance structures, lacking oversight committees and staff involvement, hinder policy execution, as Participant B highlighted. For RQ4, minimal stakeholder collaboration, with only one college engaging communities, limits resource mobilization, as Participants D and E emphasized. These findings underscore a disconnect between policy mandates and practice, driven by systemic challenges in Nigeria's educational sector.

### **Theoretical and Practical Implications**

Theoretically, the study refines [Sabatier's \(1988\)](#) Advocacy Coalition Framework by demonstrating its relevance in resource-constrained contexts. The findings highlight how misaligned coalitions (e.g., between management and staff) impede policy success, extending the framework's application to developing educational systems. The Triple Bottom Line model

(Elkington, 1997) is enriched by showing how social (curriculum), economic (infrastructure), and environmental (community engagement) objectives must be balanced in resource-limited settings, addressing a gap in global applications. Practically, the study proposes a context-specific framework to enhance policy implementation, emphasizing curriculum reform, staff training, and formalized partnerships. These strategies mitigate risks of policy failure by addressing governance inefficiencies and resource constraints, supporting Nigeria's commitment to SDG 4 and socio-economic development (United Nations, 2023).

### **Recommendations**

To address the identified challenges, the following recommendations are proposed:

1. **Curriculum Reform:** Mandate sustainability-focused courses aligned with SDG 4 in all teacher training programs, supported by clear policy guidelines in institutional strategic plans.
2. **Staff Capacity Building:** Implement mandatory training programs on sustainability and SDG 4, including workshops on curriculum development and environmental education to enhance lecturer awareness and skills.
3. **Increased Funding:** Advocate for government budget allocations prioritizing sustainability, supplemented by partnerships with NGOs and the private sectors to fund infrastructure and programs.
4. **Governance Enhancement:** Establish college-level sustainability committees with academic staff representation to ensure accountability and participatory decision-making.
5. **Stakeholder Partnerships:** Develop formalized collaboration frameworks with local communities and NGOs to support initiatives like recycling programs and environmental education outreach.

These recommendations address governance, risk mitigation, and sustainability, offering actionable solutions for policymakers and institutional leaders.

### **Recommendations**

To address the systemic barriers identified in the implementation of sustainable development policies in colleges of education in South Western Nigeria, this study proposes a comprehensive set of recommendations. These recommendations are designed to enhance policy integration, strengthen institutional capacity, and foster stakeholder collaboration, aligning with Sustainable Development Goal 4 (SDG 4) and Nigeria's National Policy on Education (2013). Each recommendation is tied to governance improvements, risk mitigation strategies, and sustainability objectives, ensuring actionable solutions for policymakers, institutional leaders, and educators. The recommendations are structured to address the key themes of curriculum integration, funding constraints, staff capacity, governance inefficiencies, and stakeholder engagement, offering a roadmap for sustainable teacher education that supports Nigeria's socio-economic and environmental goals.

1. **Curriculum Reform and Policy Integration**

Colleges of education must prioritize the integration of sustainability principles into teacher training curricula to align with SDG 4's focus on inclusive and equitable quality education. This involves revising curriculum frameworks to include mandatory sustainability-focused modules, such as environmental education, civic responsibility, and socio-economic development. For example, courses could incorporate case studies on local environmental challenges, such as deforestation or waste management, to equip future teachers with practical skills (Babalola & Olawuyi, 2021). Institutional strategic plans should explicitly outline sustainability policies, with clear guidelines for implementation,

monitoring, and evaluation. To mitigate risks of resistance due to bureaucratic delays, colleges should establish streamlined approval processes for curriculum updates, involving academic staff in decision-making to enhance ownership (Okebukola, 2019). This recommendation addresses governance by fostering participatory policy design and reduces risks of misalignment with national and global sustainability goals.

2. Staff Capacity Building and Training Programs

To overcome the barrier of limited staff awareness, colleges must implement mandatory, ongoing training programs on sustainability and SDG 4 for academic staff. These programs should include workshops on curriculum development, pedagogical strategies for sustainability education, and policy implementation frameworks. For instance, training could focus on integrating the Triple Bottom Line (TBL) model into teaching practices, balancing social, economic, and environmental objectives (Elkington, 1997). Partnerships with international organizations, such as UNESCO, could provide access to training resources tailored to resource-constrained settings (Mulà & Tilbury, 2023). To mitigate risks of disengagement, training should be incentivized through professional development credits and tied to performance evaluations. This recommendation strengthens governance by building institutional capacity and supports sustainability by equipping lecturers to prepare teachers for Nigeria's development challenges.

3. Increased Funding Allocation and Resource Mobilization

Addressing funding shortages requires a multi-faceted approach. The government should allocate dedicated budgets for sustainability initiatives in colleges of education, prioritizing curriculum development, infrastructure upgrades (e.g., energy-efficient facilities), and staff training. Document analysis revealed that sustainability receives less than 5% of institutional budgets, highlighting the need for policy advocacy to secure increased funding (Adebayo, 2022). Colleges should also pursue partnerships with non-governmental organizations (NGOs) and private sector entities to supplement government funding. For example, collaborations with environmental NGOs could support initiatives like solar panel installation or recycling programs. To mitigate financial risks, colleges should establish transparent budget allocation processes, monitored by sustainability committees, ensuring accountability and alignment with SDG 4 (Ogunode et al., 2023). This recommendation enhances sustainability by addressing resource constraints critical to policy success.

4. Governance Enhancement through Oversight Committees

Weak governance structures, identified as a major barrier, necessitate the establishment of dedicated sustainability oversight committees at each college. These committees should include academic staff, administrators, and external stakeholders (e.g., community representatives) to ensure participatory decision-making. Their responsibilities would include developing sustainability action plans, monitoring policy implementation, and evaluating outcomes against SDG 4 objectives. For instance, committees could conduct annual audits of curriculum integration and infrastructure improvements, addressing gaps identified in the findings (Participant B, College 1). To mitigate risks of top-down decision-making, colleges should adopt inclusive governance models, as advocated by Sabatier's (1988) Advocacy Coalition Framework, fostering collaboration among stakeholders. This recommendation strengthens institutional accountability and supports long-term sustainability in teacher education.

5. Formalized Stakeholder Partnerships

To enhance stakeholder collaboration, colleges must establish formalized partnership frameworks with local communities, NGOs, and government agencies. These partnerships could support initiatives like community-based environmental education programs, tree-

planting campaigns, or waste management projects, as suggested by Participant D (College 1). For example, collaboration with local communities could involve teacher trainees in outreach programs, fostering practical experience in sustainability (Nwaham et al., 2024). NGOs could provide funding and expertise for workshops, as noted by Participant E (College 3). To mitigate risks of ad-hoc engagement, colleges should develop memoranda of understanding (MoUs) outlining roles, responsibilities, and timelines for partnerships. This recommendation aligns with sustainability goals by leveraging external resources and expertise, enhancing the impact of policy implementation.

6. Monitoring and Evaluation Mechanisms

To ensure consistent policy execution, colleges should implement robust monitoring and evaluation (M&E) mechanisms. Sustainability committees should track progress using key performance indicators (KPIs), such as the percentage of curricula with sustainability content, the number of staff trained, and the frequency of community engagement activities. Regular reports should be shared with stakeholders to promote transparency and accountability. To mitigate risks of policy drift, M&E processes should be integrated into institutional strategic plans, with findings used to refine implementation strategies (Lozano et al., 2023). This recommendation strengthens governance by embedding accountability into institutional practices and supports sustainability by ensuring alignment with SDG 4.

These recommendations collectively address the study's findings by tackling curriculum gaps, resource constraints, governance weaknesses, and limited stakeholder engagement. They provide a practical framework for colleges to enhance sustainable teacher education, contributing to Nigeria's socio-economic development and global sustainability commitments.

## LIMITATION & FURTHER RESEARCH

### Limitations

This study provides valuable insights into sustainable development policy implementation in South Western Nigerian colleges of education but is subject to several limitations that influence the interpretation and scope of its findings. First, the study's focus on South Western Nigeria limits its generalizability to other regions, such as Northern or Eastern Nigeria, where socio-economic, cultural, and policy dynamics may differ significantly. For instance, funding priorities and community engagement practices in Northern Nigeria, with its distinct cultural context, may yield different implementation challenges (Okebukola, 2019). This regional constraint may have restricted the study's ability to capture a comprehensive national perspective, potentially underrepresenting diverse barriers or opportunities.

Second, the sample size of 12 academic staff, while justified by data saturation (Guest et al., 2006), represents only a small fraction of the 1,543 academic staff across the six colleges. Although purposive sampling targeted experienced participants, the limited sample may not fully reflect the diversity of perspectives within the population, such as those of junior lecturers or non-academic staff. This limitation could influence the findings by emphasizing administrative or senior perspectives, potentially overlooking grassroots challenges in policy implementation.

Third, the reliance on qualitative data, while providing rich thematic insights, precludes statistical generalizability. The use of semi-structured interviews and document analysis, though triangulated for validity, may be subject to researcher bias in coding and theme identification (Braun & Clarke, 2006). This could affect the interpretation of findings, particularly in nuanced areas like staff awareness or governance dynamics. The inclusion of document analysis mitigated this risk by corroborating interview data, but the findings remain context-specific.

Finally, the study focused exclusively on academic staff, excluding other stakeholders such as students, policymakers, or community members. This focus may have limited the understanding of broader stakeholder dynamics, as students' experiences or community perspectives could provide additional insights into policy impacts (Nwaham et al., 2024). This limitation may have constrained the study's ability to fully capture the collaborative potential of sustainability initiatives, affecting the scope of the proposed framework.

### Further Research

To address these limitations and deepen understanding of sustainable development in teacher education, several avenues for future research are proposed. First, comparative studies across different Nigerian regions (e.g., Northern, Eastern, or South-South zones) could explore regional variations in policy implementation. Such studies would provide a national perspective, identifying how socio-cultural and economic factors influence sustainability efforts in colleges of education (Okebukola, 2019). For example, research could examine how funding allocations differ in regions with varying government priorities, enhancing the applicability of the proposed framework.

Second, quantitative studies could measure the impact of sustainability policies on educational outcomes, such as teacher preparedness or student awareness of SDG 4. Surveys or longitudinal assessments could quantify the effectiveness of curriculum reforms or training programs, addressing the limitation of qualitative generalizability. For instance, a study could use pre- and post-training assessments to evaluate changes in lecturers' sustainability knowledge, providing empirical evidence for capacity-building interventions (Mulà & Tilbury, 2023).

Third, longitudinal research could assess the long-term impact of the proposed policy implementation framework on institutional practices. By tracking outcomes over 5–10 years, such studies could evaluate the sustainability of curriculum integration, infrastructure improvements, and stakeholder partnerships, addressing the dynamic nature of policy execution (Lozano et al., 2023). This approach would provide insights into how governance reforms and funding allocations influence sustained alignment with SDG 4.

Fourth, including diverse stakeholders—such as students, policymakers, and community members—in future studies would offer a holistic view of sustainability dynamics. For example, focus groups with teacher trainees could reveal how curriculum gaps affect their preparedness, while interviews with policymakers could identify barriers to funding allocation (Nwaham et al., 2024). This would address the limitation of the current study's focus on academic staff, enriching the understanding of stakeholder collaboration.

Finally, research could explore the application of advanced theoretical frameworks, such as complexity theory, to analyse the interplay of governance, resources, and cultural factors in policy implementation. This would deepen the theoretical contributions of the study, building on the Advocacy Coalition Framework and Triple Bottom Line model to address risk management and compliance in educational sustainability (Sabatier, 1988; Elkington, 1997). These studies would enhance the development of robust, context-specific frameworks for resource-constrained settings, contributing to global and national sustainability goals.

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