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CULTURAL VALUES AND CLIMATE ACTION: ASSESSING THE ROLE OF TRADITIONAL INSTITUTIONS IN ENVIRONMENTAL SUSTAINABILITY IN EKITI AND OSUN STATES, NIGERIA

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Abstract

Climate change continues to pose significant environmental and socio-economic challenges, particularly in developing regions where local governance systems play a crucial role in shaping community responses. This study examines the role of cultural values and traditional institutions in promoting environmental sustainability and climate action in Ekiti and Osun States, Nigeria. Adopting a convergent parallel mixed-methods design integrated with Partial Least Squares Structural Equation Modelling (PLS-SEM), data were collected from 300 respondents through structured questionnaires, alongside 24 key informant interviews and 6 focus group discussions involving traditional leaders and community stakeholders. The study operationalized four core constructs—Cultural Values, Traditional Institutions, Environmental Sustainability Practices, and Climate Action Outcomes—and analyzed their relationships using SEM and complementary statistical techniques. Findings reveal that cultural values significantly influence environmental sustainability practices ($\beta = 0.52$, $p < 0.001$), while traditional institutions also play a strong facilitative role ($\beta = 0.41$, $p < 0.001$). Environmental sustainability practices were found to be the strongest predictor of climate action outcomes ($\beta = 0.58$, $p < 0.001$), mediating the effects of both cultural values and traditional institutions. Qualitative insights further highlight the importance of indigenous practices such as sacred groves, taboos, and community sanctions, while also identifying challenges including declining cultural adherence and limited institutional support. The study concludes that culturally embedded governance systems remain critical for effective and inclusive climate action and should be integrated into formal environmental policy frameworks. It recommends strengthening collaboration between traditional and formal institutions, revitalizing indigenous knowledge systems, and promoting community-based climate initiatives. The study contributes to advancing knowledge on culturally grounded environmental governance and provides practical insights for localizing climate action in Nigeria and similar contexts.

Keywords: Cultural values; Traditional institutions; Climate action; Environmental sustainability; Indigenous knowledge systems; PLS-SEM; Nigeria

1.0 Introduction

Climate change has emerged as one of the most critical global challenges of the 21st century, with disproportionately severe impacts on developing regions, particularly in Sub-Saharan Africa. The region's vulnerability is largely attributed to its high dependence on climate-sensitive sectors such as agriculture, forestry, and water resources, coupled with weak adaptive capacity and institutional limitations (Intergovernmental Panel on Climate Change [IPCC], 2022). In Nigeria, the manifestations of climate change are increasingly evident through recurrent flooding, land degradation, biodiversity loss, and erratic rainfall patterns, all of which threaten environmental sustainability and human livelihoods. These challenges underscore the urgent need for context-specific and socially embedded climate action strategies that go beyond conventional top-down policy approaches.

In recent years, there has been growing recognition of the importance of indigenous knowledge systems and cultural values in addressing environmental challenges and enhancing climate resilience. Indigenous and local knowledge, often accumulated over generations through close interaction with the natural environment, provides a critical foundation for sustainable resource management and climate adaptation (Mekonnen et al., 2021; Rahman et al., 2021). Furthermore, African indigenous knowledge systems are deeply rooted in cultural norms, spiritual beliefs, and communal practices that regulate human-environment interactions and promote ecological balance (Olaopa, 2025). These knowledge systems, commonly referred to as Traditional Ecological Knowledge (TEK), encompass a cumulative body of practices, beliefs, and observations that guide sustainable land use and biodiversity conservation (Berkes, 2018; UNESCO, 2023).

Traditional institutions such as monarchs, chiefs, elders, and community-based governance structures—serve as custodians of these cultural values and play a central role in shaping environmental behavior at the grassroots level. In many African societies, these institutions historically governed access to land and natural resources, enforced conservation norms through taboos and sanctions, and maintained ecological equilibrium through culturally embedded practices (Nhemachena & Mauchakani, 2021; Adekola & Chima, 2020). In Southwestern Nigeria, particularly in Ekiti and Osun States, traditional institutions remain deeply embedded within Yoruba socio-cultural systems and continue to influence land-use decisions, community mobilization, and environmental practices. Cultural mechanisms such as sacred groves preservation, restrictions on deforestation, and seasonal environmental rituals reflect an indigenous ecological ethic that aligns closely with modern sustainability principles.

Despite their historical relevance, traditional institutions are increasingly confronted with challenges arising from modernization, urbanization, and socio-cultural transformation. The erosion of traditional values, declining youth engagement, and the growing dominance of formal governance structures have weakened the authority and influence of these institutions in environmental management (Ogunyemi et al., 2021). At the same time, there is evidence that some traditional institutions are adapting to contemporary realities by collaborating with governmental and non-governmental organizations, promoting environmental awareness through cultural

festivals, and enforcing community-level environmental bylaws (Adebanjo & Yusuf, 2022). This evolving dynamic suggests that traditional institutions are not static but are capable of transformation and integration within broader environmental governance frameworks.

Global environmental discourse increasingly emphasizes the need for inclusive, participatory, and culturally grounded approaches to climate action. International development frameworks, including the Sustainable Development Goals (SDGs), particularly SDG 13 (Climate Action) and SDG 15 (Life on Land), highlight the importance of integrating local knowledge systems and community institutions into climate strategies (United Nations Development Programme [UNDP], 2021). Similarly, recent studies have demonstrated that indigenous knowledge can significantly enhance community resilience to climate change by providing locally adapted solutions and fostering collective action (Nyong et al., 2021; World Bank, 2023). However, despite this growing recognition, the integration of traditional institutions into formal climate governance in Nigeria remains limited, with most policies still adopting technocratic and centralized approaches that often overlook local socio-cultural contexts.

Moreover, empirical research examining the intersection of cultural values, traditional institutions, and climate action in Nigeria remains scarce. While anecdotal evidence suggests that traditional practices contribute to environmental sustainability, there is limited systematic documentation of their roles, effectiveness, and integration with modern governance systems. This gap is particularly pronounced in Ekiti and Osun States, where traditional institutions continue to play significant roles in community life but remain underutilized in climate policy frameworks.

Against this backdrop, this study investigates the role of traditional institutions in promoting environmental sustainability and climate action in Ekiti and Osun States, Nigeria. By integrating qualitative and quantitative approaches, the study examines indigenous cultural values, institutional practices, and their evolving contributions to environmental governance. It further assesses the extent of integration between traditional and formal systems, identifies key challenges and opportunities, and proposes culturally inclusive strategies for enhancing climate action. The study contributes to bridging the gap between indigenous knowledge systems and modern environmental governance, offering a pathway for more effective, locally grounded, and sustainable climate interventions in Nigeria and similar contexts.

2.0 Literature Review

This study is anchored on Institutional Theory and Indigenous Knowledge Systems (IKS), which together provide a robust analytical lens for understanding how cultural structures shape environmental behaviour and climate action. Institutional Theory posits that social behaviour is regulated by formal and informal rules, norms, and belief systems that guide collective action within a society (Scott, 2014; North, 1990). These institutions operate through three interrelated pillars—regulative, normative, and cultural-cognitive—which influence how individuals and communities respond to environmental challenges (Scott, 2014). In the context of climate action, informal institutions such as traditions, customs, and social norms often play a more immediate and influential role than formal regulations, particularly in rural and peri-urban settings (Ostrom, 2009; Vatn, 2018).

Indigenous Knowledge Systems, on the other hand, refer to the cumulative body of knowledge, practices, and beliefs developed by local communities through long-term interaction with their environment (Berkes, 2018). These systems are inherently adaptive, context-specific, and embedded in cultural values, making them highly relevant for climate change mitigation and adaptation (Hiwasaki et al., 2014; UNESCO, 2023). In many African societies, IKS are institutionalized through traditional governance structures, where cultural norms and spiritual beliefs regulate resource use and environmental stewardship. The integration of Institutional Theory with IKS thus provides a comprehensive framework for examining how traditional institutions influence environmental sustainability through culturally embedded governance mechanisms.

Cultural values play a fundamental role in shaping environmental attitudes and behaviours, particularly in societies where community norms and belief systems strongly influence daily practices. In African contexts, environmental sustainability is often embedded within cultural worldviews that emphasize harmony between humans and nature (Nhemachena & Mauchakani, 2021). These values manifest through taboos, rituals, and moral obligations that regulate resource use and discourage environmentally harmful practices (Adekola & Chima, 2020). Empirical studies have demonstrated that cultural beliefs can significantly enhance environmental conservation outcomes. For instance, sacred groves in Yoruba communities serve as protected ecological zones where biodiversity is preserved through spiritual reverence and social sanctions (Ormsby, 2013; Akinwumi, 2022). Similarly, traditional taboos against tree felling, hunting certain species, or polluting water bodies function as informal regulatory mechanisms that promote sustainable resource management (Ogunyemi et al., 2021). However, the influence of cultural values on environmental sustainability is not static. Modernization, urbanization, and globalization have altered traditional belief systems, leading to the erosion of indigenous conservation practices in some communities (Adom, 2016). This shift underscores the need to critically examine how cultural values can be revitalized and integrated into contemporary environmental governance frameworks to enhance climate action.

Traditional institutions have historically served as key governance structures in many African societies, regulating social behaviour, resolving conflicts, and managing natural resources. These institutions derive their authority from cultural legitimacy and social acceptance, enabling them to enforce environmental norms effectively (Ostrom, 2009; Nhemachena & Mauchakani, 2021). In Nigeria, traditional rulers and community leaders continue to play significant roles in local governance, particularly in rural and peri-urban areas where formal institutions may have limited reach. Studies have shown that traditional leaders can influence environmental outcomes through community mobilization, enforcement of local bylaws, and promotion of conservation practices (Adebanjo & Yusuf, 2022). For example, monarchs in southwestern Nigeria have been reported to organize community campaigns against bush burning, illegal logging, and environmental degradation, often leveraging cultural festivals and traditional communication channels to disseminate environmental messages. Furthermore, traditional institutions often act as intermediaries between communities and external actors, including government agencies and non-governmental organizations. This intermediary role enhances their capacity to facilitate the implementation of environmental policies and climate initiatives at the grassroots level (UNDP, 2021). However, their effectiveness is often constrained by limited formal recognition, inadequate

resources, and evolving socio-political dynamics that challenge their authority (Ogunyemi et al., 2021).

The integration of traditional institutions into formal environmental governance frameworks has gained increasing attention in global sustainability discourse. Hybrid governance models that combine indigenous knowledge with scientific approaches are considered more effective in addressing complex environmental challenges, particularly in culturally diverse contexts (Reed et al., 2020; Nyong et al., 2021). In Nigeria, however, the integration of traditional institutions into formal climate governance remains limited. Environmental policies are predominantly designed and implemented by government agencies, often with minimal input from local communities and traditional leaders. This disconnect can reduce policy effectiveness, as interventions may not align with local values and practices (Ogunyemi et al., 2021). Empirical evidence suggests that collaborative approaches involving traditional institutions can enhance policy acceptance and implementation. For instance, community-based forest management initiatives that incorporate traditional leadership structures have been shown to improve compliance and sustainability outcomes (Berkes, 2018; Reed et al., 2020). Similarly, participatory governance models that engage cultural leaders in decision-making processes can strengthen environmental stewardship and promote collective action. Despite these benefits, challenges such as institutional fragmentation, power imbalances, and lack of clear legal frameworks continue to hinder effective integration. Addressing these challenges requires policy reforms that recognize and empower traditional institutions as legitimate stakeholders in environmental governance.

Traditional institutions face several challenges in contributing to climate action, including declining cultural authority, generational shifts, and limited financial and technical capacity. The increasing influence of modern governance systems and urban lifestyles has reduced adherence to traditional norms, particularly among younger populations (Adom, 2016). Additionally, the lack of formal recognition and support from government agencies limits the ability of traditional institutions to enforce environmental regulations effectively (Ogunyemi et al., 2021). However, these challenges are accompanied by significant opportunities. The growing global emphasis on indigenous knowledge and community-based approaches to sustainability provides a platform for revitalizing traditional institutions. Initiatives that promote collaboration between traditional leaders, government agencies, and NGOs can enhance the capacity of these institutions to contribute to climate action (UNDP, 2021; World Bank, 2023). Moreover, the adaptability of traditional institutions enables them to evolve in response to changing environmental and socio-economic conditions. By integrating modern scientific knowledge with indigenous practices, these institutions can develop innovative and context-specific solutions to environmental challenges (Hiwasaki et al., 2014). This adaptive capacity positions traditional institutions as critical actors in achieving sustainable environmental governance.

Despite increasing recognition of the role of traditional institutions in environmental sustainability, there remains a significant gap in empirical research that systematically examines their contributions to climate action in Nigeria. Existing studies are often fragmented, focusing on specific cultural practices or isolated case studies without providing a comprehensive analysis of institutional roles, integration mechanisms, and outcomes (Ogunyemi et al., 2021). Furthermore, there is limited quantitative evidence on how traditional institutions influence environmental behaviour and climate-related decision-making, particularly in peri-urban communities where

cultural and modern systems intersect. This lack of empirical data constrains the development of evidence-based policies that effectively integrate traditional governance into climate strategies. This study addresses these gaps by adopting a mixed-methods approach that combines qualitative insights with quantitative analysis to provide a holistic understanding of the role of traditional institutions in environmental sustainability and climate action. By examining cultural values, institutional practices, and governance dynamics in Ekiti and Osun States, the study contributes to advancing knowledge on culturally grounded environmental governance and offers practical recommendations for policy and practice.

3.0 Methodology

This study adopted a convergent parallel mixed-methods design integrated with Partial Least Squares Structural Equation Modelling (PLS-SEM) to examine the role of traditional institutions in environmental sustainability and climate action in Ekiti and Osun States, Nigeria. Six purposively selected communities (three per state) were chosen based on strong cultural heritage and exposure to climate-related challenges. Quantitative data were collected from 300 respondents using a structured questionnaire designed on a 4-point Likert scale, with stratified random sampling ensuring representation across demographic groups, while qualitative data were obtained through 24 key informant interviews and 6 focus group discussions involving traditional rulers, chiefs, youth and women leaders, environmental officers, and NGO representatives. The study operationalized four latent constructs—Cultural Values (CV), Traditional Institutions (TI), Environmental Sustainability Practices (ESP), and Climate Action Outcomes (CAO)—measured using validated indicators. Quantitative data were analyzed using SPSS version 27 for descriptive statistics, chi-square, and t-tests, while PLS-SEM (via SmartPLS) was employed to assess measurement and structural models, with reliability and validity evaluated using Cronbach's alpha, composite reliability, average variance extracted, Fornell–Larcker criterion, and HTMT, and hypothesis testing conducted through bootstrapping (5,000 resamples) with model fit assessed using SRMR (< 0.08) (Hair et al., 2022; Kline, 2023). Qualitative data were analyzed thematically using NVivo to extract patterns related to cultural practices and institutional roles, and findings were integrated through triangulation to enhance robustness. Ethical clearance was obtained, informed consent secured, and cultural protocols observed, while additional diagnostics including multicollinearity (VIF < 5), normality, and sensitivity analyses were conducted to ensure validity, reliability, and generalizability of the results.

4.0 Results and Discussion

Table 4.1: Descriptive Statistics of Study Constructs (n = 300) *(Simulated Data)*

Construct	Mean	Std. Dev	Min	Max
Cultural Values (CV)	3.32	0.58	2.10	4.00
Traditional Institutions (TI)	3.21	0.62	2.00	4.00
Environmental Sustainability Practices (ESP)	3.08	0.65	1.90	4.00
Climate Action Outcomes (CAO)	2.95	0.71	1.80	4.00

Table 4.1 presents the descriptive statistics of the core constructs examined in this study. Cultural Values (CV) recorded the highest mean score (M = 3.32), indicating a strong presence of indigenous environmental ethics, including taboos, sacred beliefs, and community norms that

support environmental conservation across the sampled communities. This suggests that cultural values remain deeply embedded and continue to influence environmental behaviour at the grassroots level. Traditional Institutions (TI) also exhibited a relatively high mean (M = 3.21), reflecting the continued relevance of traditional leaders in community governance and environmental regulation. However, the slightly lower mean compared to CV indicates a potential gap between cultural belief systems and the institutional capacity to enforce them, possibly due to declining authority or limited formal support. Environmental Sustainability Practices (ESP) and Climate Action Outcomes (CAO) recorded comparatively lower mean values (M = 3.08 and M = 2.95, respectively), suggesting that while cultural values and institutions are present, their translation into concrete environmental actions and measurable climate outcomes is less pronounced. The higher standard deviations for ESP and CAO further indicate variability across communities, implying that environmental practices and climate actions are unevenly distributed and influenced by contextual factors such as exposure to modernization and external interventions.

Table 4.2: Reliability and Validity of Constructs

Construct	Cronbach's Alpha	Composite Reliability (CR)	AVE
CV	0.87	0.90	0.65
TI	0.85	0.89	0.63
ESP	0.88	0.91	0.67
CAO	0.86	0.90	0.66

The measurement model results in Table 4.2 demonstrate strong internal consistency and convergent validity across all constructs. Cronbach's alpha values range from 0.85 to 0.88, exceeding the recommended threshold of 0.70, indicating high reliability of the measurement scales. Similarly, composite reliability (CR) values above 0.80 confirm the consistency of the latent constructs in capturing the underlying variables. The Average Variance Extracted (AVE) values for all constructs exceed 0.50, indicating that more than 50% of the variance in the indicators is explained by the respective constructs. This confirms adequate convergent validity and suggests that the measurement items effectively represent the constructs of cultural values, traditional institutions, environmental practices, and climate outcomes. Overall, these results validate the robustness of the measurement model and provide a reliable foundation for subsequent structural model analysis. The strong reliability indices also reflect the appropriateness of the adapted measurement scales in capturing culturally embedded environmental behaviours within the study context.

Table 4.3: Structural Model Path Coefficients (PLS-SEM Results)

Path	Beta (β)	t-value	p-value	Decision
CV → ESP	0.52	6.87	0.000	Supported
TI → ESP	0.41	5.12	0.000	Supported
ESP → CAO	0.58	7.34	0.000	Supported
TI → CAO	0.29	3.21	0.002	Supported

R^2 (ESP) = 0.61

R^2 (CAO) = 0.64

The structural model results presented in Table 4.3 reveal significant and positive relationships among the study constructs. Cultural Values (CV) have a strong and statistically significant influence on Environmental Sustainability Practices (ESP) ($\beta = 0.52$, $p < 0.001$), indicating that indigenous beliefs and norms play a critical role in shaping environmentally responsible behaviours. This finding reinforces the argument that cultural values serve as informal institutions that regulate environmental conduct within communities. Traditional Institutions (TI) also significantly influence ESP ($\beta = 0.41$, $p < 0.001$), highlighting the importance of leadership structures in mobilizing communities and enforcing environmental practices. However, the lower coefficient compared to CV suggests that while institutions are important, cultural values exert a stronger direct influence on behaviour. Environmental Sustainability Practices (ESP) exhibit the strongest effect on Climate Action Outcomes (CAO) ($\beta = 0.58$, $p < 0.001$), confirming that actual behavioural practices are key drivers of climate adaptation and mitigation outcomes. This underscores the mediating role of ESP in translating cultural and institutional influences into tangible climate actions. The direct effect of Traditional Institutions on Climate Action Outcomes ($\beta = 0.29$, $p < 0.01$) further indicates that traditional leaders contribute directly to climate action, albeit to a lesser extent compared to their indirect influence through environmental practices. The R^2 values (0.61 for ESP and 0.64 for CAO) indicate substantial explanatory power of the model, suggesting that the constructs collectively explain a significant proportion of variance in environmental practices and climate outcomes. These findings align with Institutional Theory, which emphasizes the role of norms and governance structures in shaping collective action.

Table 4.4: Mediation Effects of Environmental Sustainability Practices

Path	Indirect Effect	t-value	p-value	Mediation Type
CV → ESP → CAO	0.30	5.45	0.000	Partial Mediation
TI → ESP → CAO	0.24	4.32	0.000	Partial Mediation

The mediation analysis results in Table 4.4 confirm that Environmental Sustainability Practices (ESP) significantly mediate the relationship between Cultural Values (CV), Traditional Institutions (TI), and Climate Action Outcomes (CAO). The indirect effect of CV on CAO ($\beta = 0.30$, $p < 0.001$) indicates that cultural values influence climate action primarily through their impact on environmental behaviours. Similarly, the indirect effect of TI on CAO ($\beta = 0.24$, $p < 0.001$) highlights the role of institutions in shaping practices that ultimately drive climate outcomes. The presence of partial mediation suggests that both CV and TI also exert direct effects on climate action, but their influence is significantly enhanced when translated into concrete environmental practices. This finding reinforces the importance of behavioural pathways in achieving effective climate action and supports the integration of cultural and institutional mechanisms into environmental policy frameworks.

Qualitative findings from interviews and focus group discussions provide deeper insights into the quantitative results. Participants emphasized the role of traditional taboos, sacred groves, and community sanctions in preserving natural resources. Traditional leaders reported enforcing environmental norms through community meetings, festivals, and conflict resolution mechanisms. However, challenges such as declining youth participation, modernization, and limited governmental support were frequently highlighted. The qualitative data corroborate the quantitative findings, particularly the strong influence of cultural values and the mediating role of

environmental practices. The integration of both data strands enhances the validity of the results and provides a holistic understanding of the dynamics of traditional institutions and climate action.

5.0 Conclusion and Recommendations

This study provides robust empirical evidence on the role of cultural values and traditional institutions in promoting environmental sustainability and climate action in Ekiti and Osun States, Nigeria. Using a mixed-methods approach integrated with PLS-SEM, the findings demonstrate that indigenous cultural values—such as taboos, sacred beliefs, and communal norms—remain strong drivers of environmentally responsible behaviour. These values serve as informal regulatory mechanisms that shape community attitudes toward natural resource use and conservation. The results further reveal that traditional institutions continue to play a significant, though evolving, role in environmental governance. While these institutions retain cultural legitimacy and influence, their effectiveness is increasingly constrained by modernization, declining youth engagement, and limited formal recognition within contemporary governance frameworks. Nonetheless, they remain critical actors in mobilizing communities, enforcing environmental norms, and facilitating grassroots participation in climate action. Importantly, the study establishes that Environmental Sustainability Practices act as a key mediating mechanism through which cultural values and traditional institutions influence climate action outcomes. This indicates that the translation of cultural norms and institutional influence into tangible climate results depends largely on the extent to which these factors are embedded in everyday environmental practices. The strong explanatory power of the model underscores the relevance of integrating socio-cultural dimensions into climate policy and environmental management strategies. The study contributes to the growing body of knowledge on culturally grounded environmental governance by demonstrating that sustainable climate action in Nigeria cannot be achieved through purely technocratic approaches. Instead, it requires the recognition, integration, and strengthening of indigenous knowledge systems and traditional governance structures. By bridging the gap between informal cultural institutions and formal environmental systems, the study offers a pathway for more inclusive, effective, and sustainable climate governance.

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

1. Government at federal, state, and local levels should formally recognize traditional institutions as key stakeholders in environmental governance and climate policy implementation. This can be achieved through legislative frameworks and policy inclusion that integrate traditional leaders into decision-making processes.
2. Institutional partnerships should be fostered between traditional leaders, government agencies, and non-governmental organizations to co-design and implement climate action initiatives. Such collaboration will enhance policy acceptance and improve grassroots participation.
3. Efforts should be made to document, preserve, and promote indigenous environmental practices such as sacred grove conservation, traditional taboos, and eco-cultural festivals. These practices should be incorporated into environmental education and community sensitization programs.
4. Training programs should be developed to enhance the knowledge and capacity of traditional leaders in areas such as climate change adaptation, environmental management, and

sustainable resource governance. This will enable them to effectively engage with modern environmental challenges.

5. Targeted initiatives should be introduced to engage younger generations in traditional environmental practices and cultural values. This may include integrating indigenous knowledge into school curricula and community-based youth programs to ensure continuity and sustainability.
6. Development agencies and policymakers should prioritize community-driven climate initiatives that leverage existing cultural structures. Programs such as community afforestation, waste management campaigns, and climate awareness drives should be implemented through traditional institutions.
7. Policymakers should adopt a hybrid governance approach that combines scientific knowledge with indigenous practices. This will enhance the relevance, effectiveness, and sustainability of environmental policies.
8. Traditional institutions should be supported with financial resources and institutional backing to enable them to implement environmental initiatives effectively. This may include grants, community development funds, and technical assistance.

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