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Community engagement and participation in ecotourism development in Ikogosi Warm Spring and Arinta Waterfall Corridors

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Abstract

Purpose - This study aims to evaluate the level of community engagement and participation in ecotourism development within the Ikogosi Warm Spring and Arinta Waterfall corridors in Ekiti State, Nigeria. It specifically investigates how socio-economic characteristics influence engagement, assesses current participation levels, and examines the functionality of governance structures supporting ecotourism initiatives.

Methodology/Design/Approach - A cross-sectional survey involving 324 households was conducted using structured questionnaires and inferential statistical analyses. The data were used to characterize local socio-economic profiles, measure participation intensity, and evaluate governance mechanisms in both ecotourism corridors.

Findings - The results reveal that younger and less tenured residents are more inclined to participate in ecotourism activities, while higher education levels and commercial livelihoods in Ikogosi predict stronger involvement. Despite high awareness levels across both sites, Ipole-Iloro demonstrates more consistent participatory practices—such as regular forums, inclusive planning invitations, and enhanced training opportunities. Governance assessments show that Ipole-Iloro maintains more functional and transparent structures, whereas Ikogosi struggles with irregular consultations and perceived non-functionality. The study highlights that awareness alone does not ensure sustained participation or effective governance.

Originality/Value - This study contributes empirical evidence on how demographic, economic, and governance factors jointly shape community participation in ecotourism. By comparing two ecotourism sites with similar contexts but differing governance outcomes, it advances understanding of the mechanisms linking local capacity, institutional functionality, and sustainable tourism development in sub-Saharan Africa.

Keywords: Ecotourism, Community Engagement, Participation, Governance

Introduction

Ecotourism has emerged as a pivotal strategy for aligning conservation objectives with rural development, offering low-impact travel experiences that generate income while safeguarding natural and cultural resources (Kia, 2021; Rahman & Baddam, 2021). In Nigeria, sites such as the geothermal Ikogosi Warm Spring and the scenic Arinta Waterfall corridors in Ekiti State hold considerable potential for ecotourism-driven livelihoods (Ayodele, 2022), yet community participation in their planning and management remains under-explored (Olasebikan & Ojo, 2023). Although past research (Ojo et al., 2024) has highlighted the socioeconomic benefits of ecotourism and the importance of stakeholder involvement, limited engagement and governance challenges continue to impede equitable benefit sharing and sustainable site stewardship (Asuk & Nchor, 2018).

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Despite recognition of community engagement as a cornerstone of successful ecotourism governance (Ogunjinmi & Braimoh, 2018), barriers such as low awareness, weak institutional frameworks, and top-down decision-making have resulted in suboptimal conservation outcomes and constrained local livelihood diversification (Ojo et al., 2024; Adetola & Adediran, 2014). In the Ikogosi and Arinta corridors, preliminary evidence (Orimaye, 2018; Eyisi et al., 2021) indicates that fewer than half of host communities participate meaningfully in site management, undermining both conservation enforcement and socioeconomic resilience. To address these deficiencies, there is a clear need for a comparative evaluation of engagement modalities, governance functionality, and the socioeconomic determinants of participation across these adjacent yet distinct ecotourism settings.

Accordingly, this study aims to assess community engagement and participation in ecotourism development within the Ikogosi Warm Spring and Arinta Waterfall corridors of Ekiti State. Its specific objectives are to: (1) Evaluate the socioeconomic characteristics of local residents and their influence of the residents' socioeconomic characteristics on ecotourism engagement; (2) Assess current levels of community participation in ecotourism planning and development; and (3) Examine the presence and effectiveness of local governance structures supporting community involvement.

By focusing on both comparative and context-specific dynamics, the study seeks to generate actionable insights for policymakers, park managers, and community stakeholders to foster more inclusive and resilient ecotourism models in rural Nigeria.

Study Area

The research was conducted in Ekiti State, southwestern Nigeria, situated between 7°45′ and 8°05′ N latitude and 4°45′ and 5°45′ E longitude (Fig. 1). Bordered by Ondo, Osun, Kwara, Kogi and Edo States, Ekiti covers sixteen Local Government Areas with its capital at Ado-Ekiti. According to the 2006 national census, the State had a population of 2 384 212 and a density of 375 persons km^{-2} (NPC, 2006). Two communities—Ikogosi (host to the geothermal Warm Spring) and Ipole-Iloro (host to Arinta Waterfall)—form a contiguous tourism corridor connected by a single access road and sharing the water resource that underpins both sites.

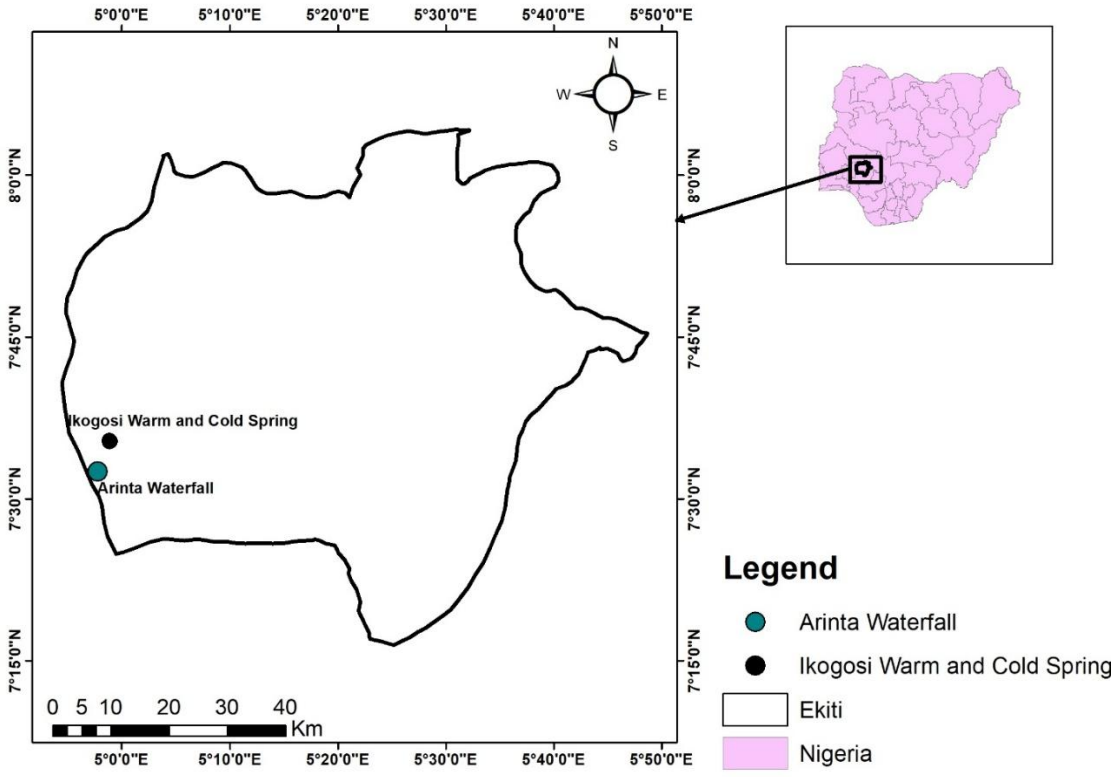

Figure 1. Map of Ekiti State Indicating showing Ikogosi Warm and Cold Spring and Arinta Waterfall. Source: Field survey, 2025

Study Design

A cross-sectional, descriptive survey design was employed to capture residents' experiences and perceptions at a single point in time (Ritchie et al., 2005). This approach facilitated the collection of quantitative data from a representative sample of households in the two host communities.

Sampling Frame

The combined household population of Ikogosi (1 000 households) and Ipole-Iloro (700 households) was estimated at 1 700. Using Yamane's (1967) formula for a 95 % confidence level and 5 % margin of error:
n = N/1+N(e)2; where; n is the Sample size; N is the Study population size (1700); e is the Sampling error of 0.05 (confidence interval of 95%)
n = 1700/1+ 1700 (0.05)2
n = 324

Sample Size Determination

A total of 324 respondents were randomly selected in proportion to each community's share of the household population (Ikogosi = 191; Ipole-Iloro = 133), ensuring that the sample reflected local demographic distribution.

Data Collection Procedures

Primary data were gathered in February–March 2025 using a structured, self-administered questionnaire. The instrument comprised closed-ended items covering socioeconomic characteristics, levels of engagement, and perceptions of governance structures. Prior to administration, the questionnaire underwent face and content validity review by academics in the Department of Wildlife and Ecotourism Management at the University of Ibadan. Internal consistency was assessed via Cronbach's alpha. Trained research assistants fluent in the local dialect distributed and retrieved questionnaires from sampled households.

Data Analysis

Cleaned data were analysed using SPSS v.25. Descriptive statistics (frequencies, percentages, means) summarized respondent profiles and engagement levels. Inferential tests—including multiple regression analysis and independent-samples t-tests—were conducted to examine the influence of socioeconomic variables on participation and to compare engagement across the two corridors, all at $\alpha = 0.05$.

Results and Discussion

Socio-economic characteristics of respondents and their influence on ecotourism engagement

Table 1 shows that Ikogosi respondents (n = 191) were slightly more male (53.9 %) and married (56.5 %) than their Ipole-Iloro counterparts (n = 133: 46.6 % male; 47.4 % married), while Ipole-Iloro had a larger single (33.1 %) and female (53.4 %) share. Christianity predominated in both sites (68.6 % vs. 56.4 %), but Ipole-Iloro reported more Muslims (32.3 %) and "other" faiths (11.3 %). Ikogosi boasted higher tertiary attainment (49.2 %) and shop-keeping livelihoods (47.1 %), with 64.9 % earning >₦50 000 monthly; Ipole-Iloro was marked by secondary education (51.9 %), farming (30.8 %), civil service (21.8 %), and lower incomes (19.5 % <₦10 000; 24.1 % ₦10 000–₦30 000) (Table 1).

The multiple regression at Ikogosi (Table 2) yielded R = 0.513, $R^2 = 0.263$, adjusted $R^2 = 0.231$, $F(8, 182) = 8.117$, $p < .001$, indicating that 26.3 % of engagement variance is explained by nine socio-economic factors. Age (B = –1.204, p = .001) and years of work experience (B = –0.445, p = .003) were the only significant predictors. At Ipole-Iloro (Table 3), the model produced R = 0.425, $R^2 = 0.181$, adjusted $R^2 = 0.128$, $F(8, 124) = 3.416$, $p = .001$, accounting for 18.1 % of variance. Only work experience reached significance (B = –0.616, p = .013), with gender (B = 1.484, p = .063) and education (B = 0.869, p = .066) approaching significance. No other socio-economic variables achieved unique predictive power in either corridor.

The findings underscore that demographic attributes and human capital differentially shape engagement across the two corridors. In Ikogosi, the negative effects of age and tenure imply that younger and less-

experienced residents may be more willing to participate, perhaps reflecting openness to non-traditional livelihoods. In Ipole-Iloro, the singular influence of experience similarly suggests that long-standing community members may be less motivated to invest in ecotourism activities. The marginal trends for gender and education there hint that male and better-educated residents could drive engagement if supported appropriately. Together, these findings suggest that interventions should prioritize capacity-building for older and seasoned residents—who may resist change—and leverage the demonstrated willingness of younger, less tenured individuals. Moreover, the stronger explanatory power of socio-economic factors in Ikogosi indicates that its higher resource base renders engagement more predictable, whereas in Ipole-Iloro unmeasured community or cultural variables may also play substantial roles.

The inverse relationship between work experience and participation aligns with the "participation fatigue" documented in long-term resource management contexts (Khadka, 2017). Likewise, the near-significant role of education and male gender in predicting engagement at Ipole-Iloro echoes findings from Sabah (Chan et al., 2021) and Chiang Rai (Palmer & Chuamuangphan, 2021, where formal education and gender norms influenced governance involvement (Palmer & Chuamuangphan, 2021; Mugizi et al., 2017). As in Komodo (Lasso & Dahles, 2021) and Vietnam's Cat Tien National Park (Duong et al., 2024), commercial orientations amplified engagement predictability in Ikogosi.

Table 1. Socio-demographic of the respondents

Variable	Category	Ikogosi		Ipole-Iloro	
		F	%	F	%
Gender	Male	103	53.9	62	46.6
	Female	88	46.1	71	53.4
Marital Status	Single	37	19.4	44	33.1
	Married	108	56.5	63	47.4
	Divorced	14	7.3	12	9.0
	Widow	32	16.8	14	10.5
Religion	Christianity	131	68.6	75	56.4
	Islam	47	24.6	43	32.3
	Others	13	6.8	15	11.3
Education Level	No formal education	17	8.9	16	12.0
	Primary education	15	7.9	19	14.3
	Secondary education	65	34.0	69	51.9
	Tertiary education	94	49.2	28	21.1
	Others	—	—	1	0.8
Primary Occupation	Civil servant	11	5.8	29	21.8
	Farming	49	25.7	41	30.8
	Resort employee	41	21.5	38	28.6
	Shop-keeping	90	47.1	25	18.8
Monthly Income	Below ₦10,000	2	1.0	26	19.5
	₦10,000–₦30,000	4	2.1	32	24.1
	₦31,000–₦50,000	61	31.9	28	21.1
	Above ₦50,000	124	64.9	47	35.3

Source: Field survey, 2025

Table 2. Multiple regression analysis predicting community engagement from socioeconomic characteristics in Ikogosi warm spring

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	40.105	2.218		18.079	0.000
Age	-1.204	0.356	-0.396	-3.383	0.001
Gender	0.393	0.509	0.060	0.772	0.441
Marital Status	0.426	0.330	0.123	1.288	0.199
Religion	0.021	0.363	0.004	0.057	0.954
Level of education	-0.220	0.275	-0.063	-0.800	0.425
Years of working experience	-0.445	0.146	-0.216	-3.041	0.003
Primary occupation	-0.363	0.0421	-0.108	-0.862	0.390
Monthly income	-0.936	0.590	-0.168	-1.585	0.115

a. Dependent Variable: Community engagement in Ikogosi. R = 0.513; R^2 = 0.263; adjusted R^2 = 0.231; F (8, 182) = 8.117, p = 0.000. Source: Field survey, 2025

Table 3. Multiple regression analysis predicting community engagement from socioeconomic characteristics in Arinta Waterfall

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	28.477	2.571		11.076	0.000
Age	0.348	0.457	0.104	0.760	0.449
Gender	1.484	0.792	0.159	1.872	0.063
Marital Status	–0.961	0.546	–0.189	–1.760	0.081
Religion	0.856	0.568	0.126	1.506	0.135
Level of education	0.869	0.467	0.171	1.858	0.066
Years of working experience	–0.616	0.244	–0.216	–2.528	0.013
Primary occupation	– 0.965	0.652	–0.213	–1.480	0.141
Monthly income	0.148	0.486	0.036	0.304	0.762

a. Dependent Variable: Community engagement in Ipole-Iloro. R = 0.425; R^2 = 0.181; adjusted R^2 = 0.128; F (8, 124) = 3.416, p = 0.001. Source: Field survey, 2025

Current levels of community participation in ecotourism planning and development

Awareness of ecotourism initiatives was uniformly high in both corridors, with 90.1 % of Ikogosi and 94.0 % of Ipole-Iloro respondents confirming knowledge of local development efforts (Table 4). Meeting regularity diverged: 52.9 % of Ikogosi residents reported "rarely" convening community forums, whereas Ipole-Iloro held weekly (30.8 %) or monthly (48.1 %) meetings. Likewise, planning invitations reached 62.3 % in Ikogosi versus 72.2 % in Ipole-Iloro. Participation indices (Tables 5 & 6) showed that 60.7 % of Ikogosi respondents felt actively involved in decision-making compared to 44.4 % in Ipole-Iloro, while regular consultation was similar (62.3 % vs. 63.1 %). Training opportunities were rated favorably by 40.8 % in Ikogosi and 57.1 % in Ipole-Iloro. Opportunities to voice opinions at public forums scored 85.3 % and 80.5 %, respectively. Prioritization of community needs was acknowledged by 30.4 % in Ikogosi and 55.6 % in Ipole-Iloro; equitable involvement of women and youth by 30.8 % versus 60.9 %; and integration of local businesses by 55.5 % versus 76.0 %. Despite these procedural differences, mean engagement scores did not differ significantly—Ikogosi (M = 30.07, SD = 3.28) versus Ipole-Iloro (M = 30.13, SD = 4.68), t (322) = –0.135, p = 0.893 (Table 7).

High baseline awareness in both corridors establishes a solid foundation for deeper participation, yet the disparity in meeting frequency and planning invitations reveals divergent governance practices. Ipole-Iloro's regular forums and broader invitation reach suggest a more institutionalized participatory framework, likely fostering stronger procedural legitimacy and trust among residents. In contrast, Ikogosi's sporadic convenings may hinder sustained dialogue and reduce opportunities for community-driven agenda-setting. Training

provision—substantially higher in Ipole-Iloro—points to differential capacity investments, which can translate into varying levels of confidence and competence when engaging in planning processes. Although decision-making involvement was self-reported at higher rates in Ikogosi, this may reflect selective participation by a core group rather than broad-based inclusion. The equivalent overall engagement scores imply that while both communities participate at similar intensity, the quality and inclusiveness of that engagement differ. Accordingly, strengthening the consistency of forums, expanding outreach mechanisms, and scaling up capacity-building in Ikogosi could enhance procedural fairness and substantive participation, ensuring that high awareness yields actionable input.

The pattern of high awareness but uneven participatory structures echoes findings in Cross River State, where community knowledge was ubiquitous but formal meeting schedules varied (Asuk & Nchor, 2018). Ipole-Iloro's robust training uptake parallels evidence from Mabira Forest in Uganda, where targeted workshops boosted local confidence and involvement (Mugizi et al., 2017). Conversely, Ikogosi's selective decision-making involvement resembles observations in Kainji Lake, where a small cadre of active participants dominated planning despite broad consultation invitations (Chikezie et al., 2023).

Table 4. Community Engagement Indicators

Variable		Ikogosi		Ipole-Iloro	
	Category	**F**	**%**	**F**	**%**
Awareness of ecotourism development activities	Yes	172	90.1	125	94.0
	No	19	9.9	8	6.0
Frequency of community meetings on ecotourism development	Weekly	2	1.0	41	30.8
	Monthly	75	39.3	64	48.1
	Rarely	101	52.9	23	17.3
	Never	13	6.8	5	3.8
Invitation to participate in planning ecotourism activities	Yes	119	62.3	96	72.2
	No	72	37.7	37	27.8

Source: Field survey, 2025

Table 5. Community Participation Measures – Ikogosi

Statement	**SA**	**A**	**N**	**D**	**SD**
Community members are actively involved in decision-making regarding ecotourism projects.	29 (15.2%)	87 (45.5%)	67 (35.1%)	8 (4.2%)	0 (0.0%)
The community is regularly consulted on ecotourism development issues.	28 (14.7%)	91 (47.6%)	56 (29.3%)	11 (5.8%)	5 (2.6%)
Training programs for community members in ecotourism activities are provided regularly.	30 (15.7%)	48 (25.1%)	77 (40.3%)	28 (14.7%)	8 (4.2%)
The community has opportunities to share their views on ecotourism development during public forums.	57 (29.8%)	106 (55.5%)	22 (11.5%)	6 (3.1%)	0 (0.0%)
Ecotourism projects prioritize the needs and preferences of the local community.	29 (15.2%)	29 (15.2%)	110 (57.6%)	20 (10.5%)	3 (1.6%)
Women and youth are equally involved in ecotourism development processes.	19 (9.9%)	40 (20.9%)	100 (52.4%)	26 (13.6%)	6 (3.1%)
Local businesses are integrated into ecotourism activities within the corridors.	32 (16.8%)	74 (38.7%)	64 (33.5%)	14 (7.3%)	7 (3.7%)

Source: Field survey, 2025

Table 6. Community Participation Measures – Ipole-Iloro

Statement	SA	A	N	D	SD
Community members are actively involved in decision-making regarding ecotourism projects.	30 (22.6%)	29 (21.8%)	48 (36.1%)	14 (10.5%)	12 (9.0%)
The community is regularly consulted on ecotourism development issues.	20 (15.0%)	64 (48.1%)	24 (18.0%)	22 (16.5%)	3 (2.3%)
Training programs for community members in ecotourism activities are provided regularly.	39 (29.3%)	37 (27.8%)	27 (20.3%)	22 (16.5%)	8 (6.0%)
The community has opportunities to share their views on ecotourism development during public forums.	44 (33.1%)	63 (47.4%)	16 (12.0%)	6 (4.5%)	4 (3.0%)
Ecotourism projects prioritize the needs and preferences of the local community.	39 (29.3%)	35 (26.3%)	34 (25.6%)	20 (15.0%)	5 (3.8%)
Women and youth are equally involved in ecotourism development processes.	41 (30.8%)	40 (30.1%)	25 (18.8%)	19 (14.3%)	8 (6.0%)
Local businesses are integrated into ecotourism activities within the corridors.	63 (47.4%)	38 (28.6%)	14 (10.5%)	6 (4.5%)	12 (9.0%)

Source: Field survey, 2025

Table 7. Independent samples t-test showing the difference in Community Engagement between Ikogosi and Ipole-Iloro

Group	N	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Ikogosi	191	30.068	3.280	0.237	-				
Ipole-Iloro	133	30.128	4.677	0.406	0.135	322	0.893	–0.0598	0.4419

Source: Field survey, 2025

Presence and Functionality of Local Governance Structures

Recognition of formal ecotourism committees is high in both corridors (Table 8), with 72.8 % of Ikogosi and 83.5 % of Ipole-Iloro respondents confirming their existence. Yet only 4.7 % of Ikogosi residents deem their committee fully functional, compared to 44.4 % in Ipole-Iloro, while 59.2 % of Ikogosi and 21.8 % of Ipole-Iloro rate theirs as non-functional. Consultation frequency similarly diverges: just 1.6 % in Ikogosi report "always" being consulted by leaders versus 34.6 % in Ipole-Iloro, and 69.1 % versus 55.6 % report being "sometimes" consulted (Table 8). Perceptions of governance support (Table 9) show 48.2 % of Ikogosi respondents neutral on whether local structures actively support ecotourism, while 53.4 % of Ipole-Iloro "agree" or "strongly agree." Active planning involvement is acknowledged by 56.0 % in each corridor (39.8% "agree," 16.2 % "strongly agree"; Table 10). Clear participation frameworks earn 69.6 % approval in Ipole-Iloro but only 60.7 % in Ikogosi. Feedback mechanisms are rated effective by 82.7 % of Ipole-Iloro and 89.0 % of Ikogosi, whereas fair benefit sharing receives 79.7 % and 78.0 % positive responses, respectively. Effective policy implementation is affirmed by 79.7 % in Ipole-Iloro and 80.1 % in Ikogosi (Table 10). An independent-samples t-test (Table 11) reveals a significant difference in mean governance functionality scores: Ikogosi ($M = 33.91$, $SD = 2.94$) versus Ipole-Iloro ($M = 32.24$, $SD = 3.95$), $t(322) = 4.35$, $p < .001$, mean difference = 1.67 ($SE = 0.38$).

Although both communities formally recognize governance committees, the stark contrast in perceived functionality and consultation frequency underscores critical institutional weaknesses in Ikogosi. High recognition alone does not translate to effective decision-making or trust; Ikogosi's low functionality rating suggests committees exist more in name than practice. In Ipole-Iloro, widespread belief in committee effectiveness and regular leader–community consultations indicate a strengthened participatory infrastructure that likely reinforces accountability and responsiveness. The similarity in feedback- and

benefit-sharing perceptions across sites suggests that, once structures operate, procedural elements can be uniformly implemented; however, without reliable convening and genuine consultation, these mechanisms remain symbolic. The significant difference in overall functionality scores confirms that governance quality—not merely its presence—shapes community confidence. Therefore, institutional support must extend beyond establishing committees to include clear mandates, capacity development, and regular, transparent decision forums to convert nominal structures into drivers of inclusive ecotourism governance.

High committee recognition aligns with Asuk and Nchor's (2018) finding that most communities report formal associations for tourism development. The gap between presence and perceived functionality mirrors Kia's (2021) observation of structural barriers impeding governance bodies globally. Ipole-Iloro's strong consultation practices echo Bhuiyan et al.'s (2011) model of multi-stakeholder collaboration enhancing institutional legitimacy. Similarly, Khaledi Koure et al. (2023) highlighted that robust feedback and benefit-sharing frameworks underpin effective governance—patterns evident in Ipole-Iloro but lacking in Ikogosi.

Table 8. Presence and Functionality of Local Governance Structures in Ikogosi and Ipole-Iloro

Variable	Category	Ikogosi		Ipole-Iloro	
		F	%	F	%
Local committee for ecotourism development	Yes	139	72.8	111	83.5
	No	52	27.2	22	16.5
Functionality of local ecotourism committee	Functional	9	4.7	59	44.4
	Neutral	55	28.8	39	29.3
	Non-functional	113	59.2	29	21.8
	Not aware	14	7.3	6	4.5
Community leaders consulted in ecotourism decisions	Always	3	1.6	46	34.6
	Sometimes	132	69.1	74	55.6
	Rarely	44	23.0	8	6.0
	Never	12	6.3	5	3.8

Source: Field survey, 2025

Table 9. Governance and Leadership Functionality – Ikogosi

Statement	SA	A	N	D	SD
1. Local leadership structures are actively supporting ecotourism initiatives.	23 (12.0%)	70 (36.6%)	92 (48.2%)	3 (1.6%)	3 (1.6%)
2. Community leaders are engaged in the planning and implementation of ecotourism projects.	31 (16.2%)	76 (39.8%)	77 (40.3%)	6 (3.1%)	1 (0.5%)
3. There is a clear and functional framework for community participation in planning.	44 (23.0%)	89 (46.6%)	44 (23.0%)	10 (5.2%)	4 (2.1%)
4. Roles and responsibilities of community members in ecotourism are clearly defined.	41 (21.5%)	105 (55.0%)	34 (17.8%)	7 (3.7%)	4 (2.1%)
5. Regular feedback mechanisms exist between authorities and the community.	113 (59.2%)	57 (29.8%)	14 (7.3%)	4 (2.1%)	3 (1.6%)
6. Leadership structures ensure fair distribution of ecotourism benefits.	64 (33.5%)	85 (44.5%)	31 (16.2%)	8 (4.2%)	3 (1.6%)
7. Policies and programs promoting ecotourism are well implemented locally.	85 (44.5%)	68 (35.6%)	26 (13.6%)	7 (3.7%)	5 (2.6%)

Source: Field survey, 2025

Table 10. Governance and Leadership Functionality – Ipole-Iloro

Statement	SA	A	N	D	SD
1. Local leadership structures are actively supporting ecotourism initiatives.	37 (27.8%)	34 (25.6%)	40 (30.1%)	13 (9.8%)	9 (6.8%)
2. Community leaders are engaged in the planning and implementation of ecotourism projects.	24 (18.0%)	57 (42.9%)	30 (22.6%)	20 (15.0%)	2 (1.5%)
3. There is a clear and functional framework for community participation in planning.	43 (32.3%)	58 (43.6%)	22 (16.5%)	7 (5.3%)	3 (2.3%)
4. Roles and responsibilities of community members in ecotourism are clearly defined.	37 (27.8%)	50 (37.6%)	25 (18.8%)	16 (12.0%)	5 (3.8%)
5. Regular feedback mechanisms exist between authorities and the community.	66 (49.6%)	44 (33.1%)	17 (12.8%)	6 (4.5%)	0 (0.0%)
6. Leadership structures ensure fair distribution of ecotourism benefits.	40 (30.1%)	66 (49.6%)	21 (15.8%)	6 (4.5%)	0 (0.0%)
7. Policies and programs promoting ecotourism are well implemented locally.	60 (45.1%)	46 (34.6%)	21 (15.8%)	3 (2.3%)	3 (2.3%)

Source: Field survey, 2025

Table 11. Independent samples t-test showing the difference in Governance Functionality between Ikogosi and Ipole-Iloro

Group	N	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Ikogosi	191	33.906	2.9382	0.2126					
Ipole-Iloro	133	32.241	3.9527	0.3427	4.348	322	.000	1.6652	0.3830

Source: Field survey, 2024

Conclusion

This comparative study of the Ikogosi Warm Spring and Ipole-Iloro (Arinta Waterfall) corridors reveals that community engagement in ecotourism is shaped by a complex interplay of socio-economic factors, participatory practices, and governance effectiveness. First, demographic and human-capital attributes—particularly age, work experience, and educational attainment—emerged as key determinants of individual willingness to engage. Younger, less tenured residents in both corridors demonstrated higher propensity to participate, while higher education and commercial livelihoods in Ikogosi rendered engagement more predictable. Second, although baseline awareness of ecotourism development is uniformly high, procedural inclusion varies: Ipole-Iloro's more regular meetings, broader planning invitations, and stronger training provision translate into deeper and more structured participation, even as aggregate engagement scores remain statistically equivalent. Finally, the presence of formal governance committees in both communities does not guarantee functionality; Ipole-Iloro residents report substantially higher committee effectiveness, consultation frequency, and confidence in feedback and benefit-sharing mechanisms, whereas Ikogosi exhibits widespread perceptions of non-functionality and sporadic leader–community dialogue.

Taken together, these findings underscore that high awareness alone is insufficient to sustain ecotourism participation and stewardship. Effective engagement requires tailored capacity-building for older and long-standing residents, regularized participatory forums, and the strengthening of governance structures through clear mandates, transparent decision-making processes, and systematic feedback loops. By aligning interventions with local socio-economic profiles and governance realities, policymakers, park managers, and community leaders can foster more inclusive, resilient, and equitable ecotourism models in Ekiti State and comparable rural settings.

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Declaration

Ethics approval and consent to participate
Not applicable.

Consent for publication
Not applicable.

Availability of data and materials
The data supporting the findings of this study are available upon request.

Competing interests
The authors declare that there is no conflict of interest regarding this work.

Declaration of generative AI and AI-assisted technologies
During the preparation of this work the author used Grammarly in order to correct spelling mistakes and help me make better sentences. After using this tool/service, the author reviewed and edited the content as needed and takes full responsibility for the content of the published article.

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