FUDMA Journal of Sciences (FJS)
ISSN online: 2616-1370
ISSN print: 2645 - 2944
Vol. 9 No. 11, November, 2025, pp 309 – 314
DOI: https://doi.org/10.33003/fjs-2025-0911-4054

CORRELATION BETWEEN KNOWLEDGE AND ATTITUDE OF RURAL DWELLERS ON COMMUNITY BASED- FOREST MANAGEMENT IN COMMUNITIES AROUND SHASHA FOREST RESERVES AREA OF OSUN STATE, NIGERIA

Aluko O. J., Adekunle A. and Olusina O. P.

Federal College of Forestry, Jericho-Ibadan, Oyo State, Nigeria

Correspondent Author's E-mail: juliwal2002@yahoo.com Phone: +2348032878193

ABSTRACT

This study assessed the correlation between the knowledge and attitudes of rural dwellers regarding community-based forest management (CBFM) in communities surrounding the Shasha Forest Reserve in Osun State, Nigeria. A multistage sampling technique was employed, with 103 household heads interviewed through structured questionnaires and personal interviews. The findings indicated that a significant majority (60.2%) of respondents possessed a high level of knowledge about CBFM initiatives, which was positively correlated with their attitudes. Specifically, 57.3% of respondents demonstrated a favorable attitude towards these initiatives, suggesting that increased knowledge enhances positive perceptions of community forest management practices. Furthermore, the analysis revealed a significant relationship between knowledge and attitudes (R-value = 0.593, P-value = 0.050), indicating that improved knowledge among community members could lead to more effective participation in sustainable land use practices. The results underscore the importance of empowering local communities through education and involvement in decision-making processes to promote sustainable forest management and address environmental challenges in the region. This study contributes valuable insights into the dynamics of community engagement in forest management and the potential for enhancing environmental sustainability through informed local participation.

Keywords: Forest Management, Knowledge, Attitude, Forest Reserves, Initiatives

INTRODUCTION

Community forest management initiatives emerged as a promising approach to ensure the sustainable use of forest resources while addressing local needs and concerns. These initiatives empowered local communities to take ownership of forest resources and participate in decision-making processes regarding land use practices (Haji et al., 2020; Zerga et al., 2019). Community-based Forest Management (CBFM) took various forms worldwide and played a crucial role in managing sustainability alongside the livelihoods of people living around forest zones. The involvement of local residents in the decisions and management of forest resources was regarded as a significant aspect of community forest management initiatives. Some also referred to it as a participatory approach, where individuals took on responsibilities often in partnership with governments and forest regulatory bodies.

Before colonization, local inhabitants within and around forest zones exercised authority over the lands, either as a community or as individuals, through the process of community forest rights to land. These lands served as a measure of wealth and status within the community, often passed down from generation to generation. However, this arrangement was altered by forest laws introduced during colonization, particularly through the Land Use Act of 1978. This act empowered the government with rights over forests and any resources within forest zones. In Nigeria, forestry was governed by state and federal laws and policies that regulated forest resource management, including forest reserves, protected forests, and timber harvesting (Usman & Adefalu, 2010).

Over the years, it had been observed that despite government laws aimed at curbing the unsustainable use of forest resources, positive results had not been achieved. The incidences of kidnapping, banditry, poaching, and encroachment by criminals had reached an all-time high in the country. This alarming situation prompted the government to involve local communities in the management of forests and their surrounding environments, with the goal of reducing illegal activities in forest zones.

Numerous community forest initiatives emerged in Nigeria. In Cross River, for instance, the government, in collaboration with the Ekuri community, introduced a forest management program that focused on timber harvesting, the use of non-timber forest products (NTFP), and infrastructure development. This initiative was accepted not only in community development but also in the management of forest resources within the community. Similarly, in the Buru community forest in Taraba State, the involvement of local residents in biodiversity conservation and sustainable forest use gradually helped the forest regain its identities (Akinsoji , 2013) .

Shasha Forest, located in Osun State, is a vital ecosystem that serves as a crucial habitat for diverse flora and fauna. Over the years, this forest has faced numerous threats due to deforestation, illegal logging, agricultural expansion, and other human activities. Community forest management initiatives have emerged as a promising approach to ensure sustainable use of forest resources while addressing local needs and concerns. .Community-based forest management (CBFM) initiatives empower local communities to take ownership of forest resources and participate in decision-making processes regarding land use practices (Haji *et.al,* 2020; Zerga *et.al,* 2019). Introducing any Initiatives in a forest zones in Shasha Forest Reserves should come in form of bottom up approach in which the community will be practically involve from the scratch.

It is against this background that the study was designed to assess the correlation between knowledge and altitude of rural dwellers on community based- forest management in communities around Shasha forest reserves area of Osun State, Nigeria with the view to proffering solution to the following research questions. The study aims to assess residents' knowledge and attitudes toward community-based

forest management initiatives in the area and to examine whether a significant relationship exists between their knowledge and attitudes.

MATERIALS AND METHODS

Study Area

The study was carried out in communities around Shasha Forest Reserve**.** Shasha Forest Reserve is located in the state of Osun, Nigeria. The site is contiguous with Omo Forest to the south. Originally 120 km2, 30 km2 in the northern portion of the reserve were de-gazetted for oil palm plantations and cocoa farms (Greengrass 2006). Its coordinates are 70 4'60"N and 4030'0" E in DMS (Degree Minutes Seconds) or 7.08333 AND 4.5 (in decimal degrees). The target population of study were household heads representatives in the communities around the forest reserve.

Sampling Size and Sampling Procedure

A multistage sampling techniques was used for the selection through various stages of selection**.** Eight communities within 0-20km to the forest reserves that are into taungya system of farming were purposively selected communities while simple random techniques was used for selection of the household head after identifying the households through Participatory rural appraisal (PRA) techniques . A total of eight villages were covered in the study, comprising 234 households**,** out of which 103 household heads were interviewed. The distribution of respondents across the villages varied: Poyika Adewumi had 16 out of 36 households interviewed, Poyika Ogunleye 16 out of 34, Oko-Orunto 17 out of 37, Fadaka 13 out of 30**,** Ifepeju 19 out of 45, Lawoka Awotorebo 4 out of 10, Poyika Onikoko 8 out of 20, and Odesa 10 out of 22. This distribution reflects a balanced representation of household heads across the communities within the study area.

Table 1: Selected Villages and Interviewed Respondents

Villages	Households	Household head Interviewed
Poyika Adewumi	36	16
Poyika Ogunleye	34	16
Oko-Orunto	37	17
Fadaka	30	13
Ifepeju	45	19
LawokaAwotorebo	10	4
PoyikaOnikoko	20	8
Odesa	22	10
Total	**234**	**103**

Data Collection and Data Analysis

Primary data was used for the study. Primary data involves collection through the use of well-structured questionnaire and through personal interview with the respondents and field visit to the study area. Data were analyzed with both descriptive (tables, frequencies and mean) and inferential analysis (PPMC).

Measurement of Variables

Knowledge of Residents on Community-Based Forest Management Initiatives

this was measured using Yes (1) or No (2). Highest score was 16 while lowest score was 8. The mean obtained was used to categorized the knowledge to High and low

Attitude of Local Residents towards Community-Based Forest Management Initiatives

a four point like raking scale was used to determine the attitude of local residents towards community-based forest management initiatives. This was graded as strongly agree = 4, agree = 3, disagree = 2, strongly disagree = 1. The result obtained was further categorized into positive and negative effect using the weighted mean score. Highest score was 36 while lowest score was 9. The mean obtained was used to categorize the attitude to High and low.

RESULT AND DISCUSSION

The Table 1 shows the socio-economic characteristics of the respondents in the study area. It shows that 77.7% of the respondents are between 41-60 years, followed by 12.6% that are between 21-40 years and 9.7% are above 61 years. It implies that most of the respondents are aged and are mature which shows they will be able to make decisions regarding community forest management on their own as according to Aluko, *et al.,* (2019) that found out most of respondent are mature enough to have knowledge of forest management practices. About 56.3% of the respondents are male and only 43.7% are females which implies that most of the respondents are male which is due to the fact that males are always the head of the house and can be able to make decisions for the family. The marital status of the respondents shows 69.9% of the respondents are married, which implies that most of the respondents are married which by implication means respondents are having responsibilities and will therefore be able to participate in community forest management as a means of meeting the responsibilities. This relates with Adhikari, *et al.,* (2004) who found out that marriage confers responsibilities on people and influence their decision on community forest practices.

Table 2 further shows 49.5% of the respondents have secondary education, 23.3% have primary education, 10.7% have NCE/Diploma and 4.9% have BSc and HND and this implies that a larger percentage of the respondents are educated and this will influence their understanding and perception of community forest management in the study area and this agrees with Swanson (2008) who noted that education enhances individuals' knowledge and attitude towards conservation of natural resources such as forest. In addition, 42.7% of the respondents are farmers, 28.2% are traders, and 10.7% are artisan which suggests that most of the respondents in the study area have different occupation. Majority (76.7%) of the respondents have an household size of between 11-21 members and only 15.5% have above 21 members and this greatly shows that most of the respondents have larger household size and can determine their willingness or participation in community forest management, this finding support Alhassan (2010) that reported a larger percentage of respondents have larger household size which influence the participation in forest management. About 46.6% have spent between 21-40 years in the community and this implies that most of them have stayed long in the study area and could further understand and make decisions on community forest management.

Table 2: Socio Economic Characteristics of Respondents

Variable	Frequency	Percentage
Age		
21-40	13	12.6
41-60	80	77.7
Above 61	10	9.7
Sex		
Male	58	56.3
Female	45	43.7
Marital status		
Single	4	3.9
Married	72	69.9
Divorced	4	3.9
Widowed	23	22.3
Educational qualification		
No formal education	11	10.7
Primary	24	23.3
Secondary	51	49.5
NCE/diploma	11	10.7
BSc/HND	5	4.9
Post graduate degree	1	1.0
Occupation		
Farming	44	42.7
Processing	2	1.9
Artisan	11	10.7
Fishing	9	8.7
Civil servant	8	7.8
Trading	29	28.2
Average monthly income		
Below 21,000	1	1.0
21,000-40,000	59	57.3
41,000-60,000	37	35.9
Above 60,000	6	5.8
Household size		
Below 10	8	7.8
11-21	79	76.7
Above 21	16	15.5
Years of residence.		
Below 21 years	46	44.7
21-40	48	46.6
41-60	9	8.7
Total	**103**	**100.0**

The Table 3 shows that the knowledge of residents on community-based forest management initiatives (CBFIS). It reveals that 89.3% of the respondents support that empowering local communities by involving them in decision-making processes related to forest management and only 10.7% was against it and this could be due to the fact that local communities and small farmers have been sustainably managing forest resources and on-farm trees based on traditional knowledge over long periods of time and this relates with Agbogidi *et al.* (2005) who reported that local communities help in managing forest resources effectively due to their experience in forest management. About 72.8% of the respondents reported CBFIS promote the sustainable management of forest resources in which 27.2% were against and this could be attributed to the fact that CBIFS have been enhanced to increase the production and protection of natural forest resources such as land, water, wildlife, biodiversity, environmental resources. In the same line, 75.7% reported protecting biodiversity is often a key objective of CBIFS which was however not supported by 24.3% of the respondents. These findings is line with Adedayo, (2003) that found out community forest management practices has been promoted as a way to merge environmental conservation with natural resource rights agenda to ensure the conservation of forest resources. The study further shows 71.8% who believed CBFIs can help reduce conflicts over land and resources among different stakeholder groups which could be attributed to the fact that all the groups are now involved in the management of the community forest whereby they can discuss the opportunity or the allocation of the resources. This support Ibor and Abi (2005) who maintained that, community forest management avails the communities the unique opportunity of discussing or negotiating among different groups with better understanding of the true value of their forest resources.

Table 3: Knowledge of Residents on Community-Based Forest Management Initiatives

S/N	Knowledge item	Yes	No
1	Promote the sustainable management of forest resources	75(72.8)	28(27.2)
2	Empower local communities by involving them in decision-making processes related to forest management	92(89.3)	11(10.7)
3	Protecting biodiversity is often a key objective of CBFIs	78(75.7)	25(24.3)
4	CBFIs can help safeguard threatened species and habitats	74(71.8)	29(28.2)
5	CBFIs can help reduce conflicts over land and resources among different stakeholder groups	74(71.8)	29(28.2)
6	CBFI uses a Top-Bottom Approach	75(72.8)	28(27.2)
7	CBFI entails excluding community members from the management and conservation of forest resources	16(15.5)	87(84.5)
8	CBFI have negative impact on the ecosystem	21(20.4)	82(79.6)

Source: Field survey, 2024

From the Table 4, it was revealed that the knowledge of the respondents towards community forest-based management practices was high based on the composite scored obtained using the mean as a baseline (above the mean is high) . It implies that 60.2% responses is above the mean score. This implies that majority of the respondents have good knowledge of community forest-based management practices and by extension the positive implication of such initiative to the communities and conservation of the resources in the forest and its environments.

Table 4: Categorization of Respondents Based on Knowledge of Community-Based Forest Management Practices

Level	Frequency	Percentage (%)	Mean
Low	41	39.8	
High	62	60.2	40.8
Total	103	100	

The Table 5 shows the attitude of local residents towards community-based forest management practices in the study area. It shows 64.1% of the respondents strongly agree that community-based forest management can contribute to the economic development of our community, 28.2% agree and only 20. Strongly disagree with the statement. This implies that forest could offer several benefits both tangible (meat, food, etc.) and intangible (fuelwood, timbers),etc. which can be sold for generating income for the community. This finding support (Udofia, 2001) who found out localized or community-based management of forest resources is more likely to alleviate poverty than centralized management as it help to improve the economic status of the study area. In addition, 52.4% of the respondents strongly agree they feel community-based forest management initiative can lead to better conservation outcomes. It was assumed that shifting the management of forests from state to local communities could result in more sustainable management of forests, if communities found it in their interests to conserve them (Maryudi *et al.* 2012), while also contributing significantly to social and economic development.

In addition, 42.7% of the respondents strongly agree they are willing to actively participate in community-led initiatives aimed at preserving our forests and also 26.2% agree with the attitude statement which according to the respondents could help them play their role in ensuring environmental sustainability and social stability. This result is in relation with (Tang *et al.,* 2013) that found out Community participation also plays an important role in environmental stability, national unity and social stability. Table 4.3 further shows 46.6% of the respondents strongly agree they perceive community-based forest management as a sustainable approach for ensuring the long-term health of our forests and 28.2% reported agree with the statement and this could be attributed to the fact that the initiative help to protect against illegal felling of trees which could lead to deforestation. The primary objective of community forestry management according to Ogar*et al*. (2003) is to halt deforestation by maintaining or increasing forest cover.

Table 5: Attitude of Local Residents towards Community-Based Forest Management Initiatives

Attitudinal statements	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Community involvement is not crucial for the successful management of our local forests	27(26.2)	37(35.9)	31(30.1)	8(7.8)
2. I feel confident that community-based forest management initiatives can lead to better conservation outcomes	54(52.4)	37(35.9)	12(11.7)	12(11.3)
3. I think that local residents shouldn't have a significant say in the decision-making processes related to forest management	23(22.3)	27(26.2)	48(46.6)	5(4.9)
4. I am willing to actively participate in community-led initiatives aimed at preserving our forests	44(42.7)	27(26.2)	26(25.2)	6(5.8)
5. Community-based approaches are not effective enough in addressing issues like illegal logging and deforestation	27(26.2)	25(24.3	13(12.6)	36(25.0)
6. I believe that community-based forest management can contribute to the economic development of our community	66(64.1)	29(28.2)	7(6.8)	1(2.0)
7. I am concerned that with community involvement, our forests will be at greater risk of degradation	26(25.2)	37(35.9)	32(31.1)	8(7.8)

Attitudinal statements	Strongly Agree	Agree	Disagree	Strongly Disagree
8. I perceive community-based forest management as a sustainable approach for ensuring the long-term health of our forests	48(46.6)	29(28.2)	25(24.3)	3(2.9)
9. Local communities do not necessarily need training and support to effectively manage forest resources	24(23.3)	28(27.2)	34(33.0)	17(16.5)

Source: Field survey, 2024

The Table 6 below, revealed that the level attitude of the respondents towards community forest-based management practices was relatively high based on the mean obtained from the composite score from the altitude statement which was high. It implies that 57.3% responses was above the mean value. The positive attitude towards the practices as this could be attributed to their high knowledge on community forest management practices.

Table 6: Level Attitude Towards Community-Based Forest Management Practices

Level	Frequency	Percentage (%)	Mean
Low	44	42.7	
High	59	57.3	30.7
Total	103	100	

Source: Field Survey, 2024

Table 7 shows there is a significant relationship between attitudes of the respondents and effectiveness of sustainable land use in the study area(x^2=0.593,P=0.050)which implies that the respondents positive attitude have a significant influence on the perceived community forest management practices in promoting sustainable land use practices.

Table 7: PPMC Analysis Showing the Relationship Between Attitudes of the Respondents and Effectiveness of Sustainable Land Use in the Study Area

Variables	R-value	P-value	Decision
Knowledge vs Attitude	0.593	0.050	S

CONCLUSION

The study conducted in the communities surrounding the Shasha Forest Reserve in Osun State, Nigeria, revealed a strong positive relationship between residents' knowledge and attitudes toward community-based forest management (CBFM) initiatives. Most respondents demonstrated a high level of understanding of CBFM practices and expressed favorable attitudes toward active community participation in forest conservation, recognizing its economic and environmental benefits. However, challenges such as illegal logging, deforestation, and rising criminal activities in forest zones pose significant threats to sustainable management.

To address these issues and strengthen CBFM efforts, the study emphasizes the need for comprehensive capacity-building and training programs to enhance residents' skills and knowledge in sustainable forest practices. It also advocates for greater community involvement through participatory, bottom-up approaches in decision-making processes. Furthermore, awareness campaigns should be intensified to foster positive attitudes and deepen understanding of forest conservation. Collaborative partnerships with government agencies and NGOs are recommended to provide technical and financial support, while continuous monitoring and evaluation are essential to ensure the effectiveness and sustainability of these initiatives. Overall, empowering local communities through education, participation, and collaboration is vital for the long-term success of forest conservation in the Shasha Forest Reserve area.

REFERENCES

Adedayo, A. G. (2003). *Participatory forestry for sustainable forest management in Nigeria*. In L. Popoola, P. Mfon, & P. Oni (Eds.), *Proceedings of the 29th Annual Conference of the Forestry Association of Nigeria* (pp. 88–98). Forestry Association of Nigeria.

Adhikari, B., Di Falco, S., & Lovett, J. C. (2004). Household characteristics and forest dependency: Evidence from common property forest management in Nepal. *Ecological Economics, 48*(2), 245–257. https://doi.org/10.1016/j.ecolecon.2003.08.008

Agbogidi, O. M., Akparobi, S. O., & Adolor, E. B. (2005). Forestry development for a safe environment. *Proceedings of the 29th Annual Conference of the Forestry Association of Nigeria*, 196–201.

Akinsoji, A. (2013). *Community participation in biodiversity conservation in Buru Forest, Taraba State, Nigeria*. Journal of Tropical Forest Resources, 29(1), 33–41.

Alhassan, M. (2010). Household size and forest resource use in Northern Ghana. *Journal of Sustainable Development in Africa, 12*(6), 93–108.

Aluko, O., Odewumi, S., & Adeola, R. (2019). Demographic factors influencing forest conservation practices among rural households in Nigeria. *Journal of Environmental Management and Safety, 10*(1), 122–132.

Greengrass, E. (2006). A survey of chimpanzees in the Shasha Forest Reserve, Nigeria. *Primate Conservation, 21*, 71–77. https://doi.org/10.1896/0898-6207.21.1.71

Haji, J., Tesema, G., & Teka, D. (2020). Community-based forest management practices and their contribution to forest conservation and livelihoods in Ethiopia. *International Journal of Forestry Research, 2020*, 1–12. https://doi.org/10.1155/2020/8892347

Ibor, O., & Abi, E. (2005). The role of community-based forest management in conflict resolution in Nigeria. *Nigerian Journal of Forestry, 35*(1), 45–52.

Maryudi, A., Devkota, R. R., Schusser, C., Yufanyi, C., Salla, M., Aurenhammer, H., ... & Krott, M. (2012). Back to basics: Considerations in evaluating the outcomes of community forestry. *Forest Policy and Economics, 14*(1), 1–5. https://doi.org/10.1016/j.forpol.2011.07.017

Ogara, W. O., Kairu, J. K., & Njenga, M. (2003). Participatory forest management: A strategy for reducing deforestation. *African Journal of Ecology, 41*(Suppl. 1), 45–50.

Swanson, R. A. (2008). *Foundations of human resource development*. Berrett-Koehler Publishers.

Tang, S. Y., Tang, C. P., & Lo, C. W. H. (2013). Public participation and environmental sustainability in China: Case studies of village forest management. *Journal of Environmental Management, 129*, 55–62. https://doi.org/10.1016/j.jenvman.2013.05.040

Udofia, S. I. (2001). Community forestry and poverty alleviation in Nigeria. *Nigerian Journal of Forestry, 31*(2), 12–18.

Usman, B. A., & Adefalu, L. L. (2010). Nigerian forestry, wildlife and protected areas: Status report. *Biodiversity, 11*(3-4), 54–62. https://doi.org/10.1080/14888386.2010.9712669

Zerga, B., Yeshanew, A., & Bekele, W. (2019). The role of community forest management in biodiversity conservation in Ethiopia. *Journal of Ecology and the Natural Environment, 11*(5), 71–79. https://doi.org/10.5897/JENE2018.0732