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CORRELATE OF FOREST VALUES AND QUALITY OF LIFE AMONG HOUSEHOLDS AROUND OBA HILL FOREST RESERVE OSUN STATE, NIGERIA

Aluko, O.J., Alarape, A.B, Ogunwale, O.G, and Marizu, J.T

Forestry Research Institute of Nigeria, Federal College of Forestry, Ibadan

ABSTRACT

In Nigeria, the forest environs are generally viewed as a core rural area of the country. Despite this assertion, many forest dwellers still regarded forests as the safety net for human survival. This study examined the correlation between forest values and quality of life among rural households around Oba Hill Forest Reserve, Osun State, Nigeria. A multistage sampling method was employed to choose 108 study participants. Focus group discussions and an interview schedule were used to obtain data. It was discovered that the majority of participants (64.8%) were male, aged between 41-50 years (59.3%), married (65.7%), and (70.4%) participated in forest practices. The rate at which the respondents embraced forest value was high (71.3%) while the quality of life as regards to the environments was satisfactory. There was a strong connection between the educational qualifications of the respondents (x^2=8.334, p=< 0.005) and quality of life. Also, a positive correlation was observed between forest values and quality of life of the respondent in the reserve (r=0.667, p=.000).

Keywords: *Forest value, forestry, quality, forest reserve, rural households.*

Corresponding author: Aluko, O.J., Alarape can be contacted at juliwal2002@yahoo.com

1. INTRODUCTION

Forests worldwide are known as an important habitat with respects to the biological diversity and the ecological functions of the environment. According to the Independent Evaluation Group (2014), over 1.6 billion people rely on trees for their livelihoods, and forests are home to many Indigenous peoples and communities who care for some of the world's most vulnerable ecosystems. The world's forests have experienced a tremendous decline recently as a result of population increase, migration, industrialization, and other socioeconomic developments. Due to perception and utilization of forest resources, the core values of forests worldwide are continuously diminishing. The satisfaction of fundamental human needs is seen to be closely tied to the usage of forest resources. Furthermore, livelihoods of people are closely related to the environment around the forests. Forest possesses diverse forms of encompassing ecological value to socio-cultural value, stemming from the ecosystem services they offer (MEA, 2003, Yang *et al*., 2015). These qualities offered by the forest are classified as either instrumental or intrinsic in terms of how they improve human well-being (Nadine 2016). Food, fuel wood, medicinal plants, clean water, recreation, and income were all some of the forest values and services expected to be enjoyed by people and indirectly impact the human quality of life. Also, the impact of forest values plays an important role in better environmental quality in and around the forest areas. In developing countries, especially in Nigeria, people tend to focus more on an economic value derived from the forest. The diverse economic value is the major interest of the people living around the forests. For a long time, the valuation of forest resources has long been a subject of contention in the forestry industry. Until recently, the majority

of valuation research was focused on wood products, with little emphasis paid to constructing a comprehensive assessment of all different goods and services produced by the forest (Kengen, 2007).

It is believed that the quality of life encompasses economic and ecological development that are inextricably linked to social, psychological, cultural, political, and environmental factors (Zain et al., 2018). It is therefore vital to the study to comprehend the connections between people's values for forests and those related to rural quality of life. Perhaps, it might provide insight into how people respond to different management decisions and offer beneficial suggestions to local forestry policymakers, particularly in areas where public benefits are crucial.

Based on the above considerations, the study examined the correlation of forest values to the quality of life in the study area with a view to understanding the relevance of the forest in with the quality of life among households around Oba hill forest reserve, Osun State, Nigeria. It is believed the study will assist in designing and implementing policies that are expected to create an enabling environment in the forest users to the value to can improve their quality of life. This goal was met by providing answers to the following study questions.

I. What are the forest values embraced by rural households in the study area?

II. What is the level of quality of life among rural households in the study area?

III. What are the relationships between the selected personal characteristics and the quality of life among the respondents in the study area?

IV. What is the relationship between the forest values embraced and the level of quality of life among the respondents in the study area?

2. LITERATURE REVIEW

2.1 Quality of life

Recently, various researchers worldwide have recently taken a critical interest in issues related to the quality of life. People view studies on quality of life in different perspectives. Veenhoven (2000) viewed quality of life in four dichotomies 1) Environmental livability (2) the individual's life-ability; (3) the external utility of life; and (4) the individual's inner appreciation of life. Also, Dedhiya and Kong (1995) in their study, view the quality of life in two approaches, namely, the psychometric approach and the utility approach. The psychometric approach is based on memory tests that tend towards the intelligence of human beings concerning the environment while the latter is based on measurement a single cardinal value, typically ranging between 0 and 1. The latter measurement works better in the individual's health-related quality of life at a specific period.

There are many distinct definitions of quality of life depending on each country or region's level of development, social and cultural conceptions, and traditions. There is, however, no commonly accepted one. This has resulted in ongoing debates among researchers worldwide regarding which approach the quality of life should reflect subjective or objective. Quality of life is a one dimensional or multidimensional construct, values play roles, and quality of life is an absolute or relative term, and so on. Who Health Organization (WHO, 1996) defines quality of life as an individual's view of their position in life in the context of the culture and value systems in which they live, as well as in connection to their ambitions. The satisfaction of an

individual with his or her life dimensions in comparison to his or her ideal life could be defined as quality of life. Furthermore, Gilgeous (1998) stated that evaluating the quality of life is dependent on the individual's value system as well as the cultural milieu in which he lives.

Haas A.K categorizes the definition of quality of life into five criteria, as most accurately described in the study conducted by Merkys et al., (2008):

- Quality of life is an assessment of an individual's current (here and now) circumstances.

- The substance (content) of quality of life is multidimensional.

- Life quality varies according on individual values.

- Quality of life involves both objective and subjective measures.

- Individuals who are capable of doing subjective self-assessment are best suited to assessing quality of life.

2.2 Forest Value

Forest is another environment that could give quality of life another meaning entirely. In the context of the forest's environments, quality of life could be strictly addressed based on the benefit and value people derive from the forest, and the implication on their lives.

A forest is an area of land dominated by trees, animals, and, more recently, humans. Human society and woods interact in positive and negative ways. Forests manage local and global temperature, mitigate weather events, regulate the hydrological cycle, safeguard watersheds and their flora, water flows, and

soils, and provide a massive store of genetic information, much of which is unknown (Pearce, 2001). Forests also provide ecosystem services to humans and are popular tourist destinations. Forests can have an impact on human health and activities, such as unsustainable use of forest resources, which can have a negative impact on forest ecosystems. Because it appears implausible that the vast majority of the biological resources in question could occupy non-forest settings, forest values embody the values of the ecological diversity they contain.

The forest's values are categorized into different categories based on the view and benefits derived by individuals or systems. Globally, values such as economic, social, health, recreation, and ecology as well as traditional and religious value could be derived from the forests for the benefit of a system. These go to show that forests go beyond trees and economic value. Forests can contribute to economic growth in more ways that do not require the depletion of forest resources.

3. METHODOLOGY

3.1 Study area

The research was conducted in the Oba Hills Forest reserve in the Iwo Local Government Area of Osun State, Nigeria, at 7o 39′N and longitude 4o 9′E.

3.2 Population of the Study

The rural family heads in the Oba Hills Forest reserve in Iwo, Iwo local government, Osun State, were the study's target population.

3.3 Sampling Procedure and Sampling Size

This investigation was carried out using a multistage sampling technique.

- First stage: Oba Hill comprises six villages which are: Asero, Owu-ile, Ifeodan, Akinleye, Masifa, and Ikonifin.

- Second stage: Five communities in Oba Hill that have a larger sampling size were chosen using a simple random sampling procedure. The villages are Asero, Owu-ile, Ifeodan, Akinleye and Ikonifin. In Asero, there were 32 households, Owu-ile 24 households, Ifeodan 21 households, Akinleye 37 households, and ikonifin 24 households.

- Third stage: Systemic sampling techniques were used to select 27 household in Asero, 21 household in Owu-ile , 16 household in Ifeodan, 33 household in Akinleye and 23 household in Ikonifin.

The differences in the numbers of respondents selected per village are due to the difference in the number of households in these villages. In all, 120 respondents were selected and interviewed using structured questionnaire.

3.4 Method of data analysis

Both descriptive and inferential statistics were used to analyze the data collected. Inferential statistics like chi Square and Pearson Product Moment Correlation Coefficient were employed along with descriptive statistics to analyze the objectives.

3.5 Measurement of Variables

i. Forest values embraced by respondents in the study area: It was operationalized on four-point scales of Extremely Involved (EI), Occasional Involved (OI), and Slightly Involved (SL) and None Involvement (NI) for which scores of 4, 3, 2 and 1 were assigned respectively. A composite score was obtained by summing each of the questions, which was then used in the test of hypotheses. Also, the composite scores Extremely Involved (EI), Occasional Involved (OI), Slightly Involved (SL), and None Involvement (NI), mean was the benchmark for the categorization of the embracement.

ii. Quality of life among the respondents in the study area: It was operationalized on four-point scale of Very Satisfied (VS), Satisfied (S), Dissatisfied, and Strongly Dissatisfied (SD) for which scores of 4, 3, 2, and 1 were assigned respectively. A composite score of quality of life was obtained by summing each question, which was then used for the hypotheses.

4. RESULTS AND DISCUSSION

4.1 Social-Economic Characteristics of the Respondent

The socio-economic characteristic of the respondents examined includes, sex, marital status, educational level, occupation, and participation in forest practice. The distribution showed that the majority (64.8%) of the respondent's household heads in the communities were male while 35.2% were female. This could be linked to the fact that males are the heads of households that dominated the study area as a result of their belief in the value associated with forests. This is in line with a similar study on the forest by Adusei and Dunyah (2016) who reported that the male gender was more interested in forest-related issues.

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Table 1. Frequency Distribution of Respondents Socio-Economic Characteristics in the Study Area

Variable	Frequency	Percentage (%)
Sex		
Female	38	35.2
Male	70	64.8
Total	108	100
Age		
≤30	9	8.3
31-40	8	7.4
41-50	64	59.3
>50	27	25.0
Total	108	100
Marital Status		
Single	10	9.3
Married	71	65.7
Divorced	24	22.2
Separated	3	2.8
Total	108	100
Educational Level		
No Formal Education	10	9.3
Primary	31	28.7
Secondary	27	25.0
Tertiary	40	35.0
Total	100	100
Occupation		
Artisan	45	41.7
Farmer	24	22.2
Trader	25	23.1
Teacher	14	13.0
Total	108	100
Do you participate in forest practices?		
No	32	29.6
Yes	76	70.4
Total	108	100

According to the age distribution of the respondents, the majority (59.3%) were between the ages of 41 and 50, while 15.7% and 25.0% were between the ages of 41 and 50, respectively. This indicates that most of the respondents were within this important age bracket. This result is contrary to the study of Adegoke, Wahab, & Ojo (2022) who reported that household heads within Oba Hills were within the middle age category of 20-50 years.

Also, Table 1 further revealed that the majority of respondents (65.7%) were married followed by divorced, single, and separated respondents with a proportion of 22.2%, 9.34%, and 2.8% respectively. It is suggested that a higher percentage of married people is an indication of more responsible adults in society.

In terms of education, it was revealed from the table that 9.3% of the respondents in the study area have no formal education, 28.7% had primary education, 25.0% with secondary education and 37.0% were able to acquire tertiary education, even though they were residing in less educational disadvantaged rural areas, the respondents made drastic efforts to acquire knowledge to improve their life. Their literacy level perhaps may help them appreciate forest values in the study area. In addition, it was pointed out in the Table 1 that majority of the dwellers (41.7%) were artisans, 22.2% were engaged in farming, and 23.1% were in trading, and 13.0% of the respondents were engaged in teaching.

This shows that a larger proportion of the respondents were involved in the informal sector of the economy. These are indications of occupation diversity in the study area. Furthermore, it was observed from the result above that 70.4% of the respondents participated in forest practices while 29.6%

of the respondent does not participate in forest practices in the study area. This means that the vast majority of residents were familiar with issues pertaining to the forest and how it might affect their lives. Also, it was revealed that 37.0% of respondents lives or stay in the study area for <10 years, 41.7% of respondents lives for 10-19 years and 21.3% lived for 20 years and above. This is an indication that the respondents are in the right position to participate in the survey.

4.2 Forest Values Embraced by Respondents

The result presented in Table 2 was used to analyze the forest value embraced by the dwellers in the study area. It shows that a larger proportion of the respondents utilized medicinal plant located in the forest for their health issues (mean= 2.47).

Table 2. Forest Values Embraced by Respondents

Forest values	EI	OI	SI	NI	Mean
Preservation of virgin forest land.	55.6	38.9	1.9	3.7	2.46
Setting out areas of recreations in forest.	20.4	76.9	1.9	0.9	2.17
Increasing tourism in the forest landscape.	60.2	28.7	7.4	3.7	2.45
Increasing bio-fuel production from the forest.	32.4	48.1	6.5	13.5	2.00
Maintaining biodiversity (the diversity of plants, animals and other living organisms in the forest.	36.1	52.8	8.3	2.8	2.22
Upholding cultural heritage peculiar to the forest location.	39.8	40.7	17.6	1.9	2.19

Utilization of medicinal plants located in the forest.	62.0	25.9	9.3	2.8	2.47
Upholding spiritual beliefs relating to the forest.	13.0	28.7	53.7	4.6	1.50
Inculcating the traditions relating to the forest to the next generation.	22.2	41.7	31.5	4.6	1.81
Utilization of Non- Timber Forest products in the forest.	42.4	46.3	14.8	6.5	2.05

Source: Field survey, 2022. **Grand mean =2.13**
Note: Extremely Involved (EI), Occasional Involved (OI), and Slightly Involved (SL) and None Involved (NI).

It was reported in the focus group discussion: "*The herbs from the forests are the most effective medicine which could cure many illnesses and sickness as well as diseases in the body".* This is consistent with Astutik *et al*., (2019) who reported that medicinal plants significantly contribute to affordable healthcare. This was followed with the respondents who inculcate in the habit of preservation of virgin land (mean= 2.46). This suggests that respondents had a better awareness of the forest value generated from the preservation of virgin forest land. Also, it was revealed that the dwellers regarded the increasing tourism of the forest landscape as an important forest value to the forest households and the surroundings (mean=2.45). "*The findings were supported by one of the discussants during FGD who affirmed that people from different part of the country regularly visits the forest for tourism purpose and sight-seeing. According to the discussants, the forest generates good returns to the dwellers in the forest reserves who engaged in selling of forest foods and products derived from the forest to the tourists."* Furthermore, maintaining biodiversity (the diversity of plants, animal and other organism in the forest) were embraced by the respondents as a great forest value in Oba Hill Forest

reserve (mean=2.22). This implies that in the study area the respondents embraced and believed in maintaining biodiversity. This was supported by the findings of Bakhitiari *et al.* (2014), who showed that in a forest zone study, lay people value forest biodiversity. It was also revealed from Table 2 that the respondents were of opinion that upholding cultural heritage peculiar to the forest location is an excellent forest value (mean=2.19). The view of the respondents on passing the traditions relating to the forest to the next generation recorded low proportion (mean=1.81). This is an indication that the dwellers in the zone found it difficult to teach or lecture their children on traditional values relating to the forests. The lowest proportion shows that the respondents were upholding spiritual beliefs relating to the forest (mean= 1.50). This is a signal that dwellers are gradually moving away from core spiritual beliefs to more convention belief in the society. This is in line with the findings of one of the discussants in the FGD reported that *"youth of nowadays did not believe in traditional ways of doing things in the forest and the new generation perceived the forest environments as core rural areas."*

4.2.1 Categorization of Forest Values Embraced by Respondents

In summary, Table 3 shows that a larger proportion of the respondent (71.3%) embraced the forest value, while 28.7% did not embrace the forest value in the study area.

Table 3. Categorization of Forest Values Embraced by Respondents

Level	Freq.	%	Minimum	Maximum	Mean
Low	31	28.7	13.0	30.0	21.3±3.1
High	77	71.3			

This clue indicates that the respondents held a high respect for the forest's worth in the research area.

4.3 Quality of Life among Respondents

The result presented in Table 4 was used to analyze the respondents' quality of life in the study area. It shows that the larger proportions of the respondent (3.52) were very satisfied with the way they spent their time around the forest environs.

Table 4. Quality of Life among Respondents

Quality of life	VS	S	D	VD	Mean
How satisfied or dissatisfied are you with the way you spend your time in the forest environment?	51.9	48.1	0	0	3.52
How satisfied or dissatisfied are you when you are alone?	18.5	75.9	4.6	0.9	3.12
How satisfied or dissatisfied are you with your housing?	36.1	49.1	12.0	2.8	3.19
How satisfied or dissatisfied are you with your neighborhood as a place to live in?	40.7	46.3	9.3	3.7	3.24
How satisfied or dissatisfied are you with the food you eat in the forest environment?	30.6	50.9	12.0	6.5	3.06
How satisfied or dissatisfied are you with the clothing you wear?	36.1	50.0	7.4	6.5	3.16
How satisfied or dissatisfied are you with the health services derived from the forest?	40.7	52.8	6.5	0	3.34
How satisfied or dissatisfied are you with your sex life?	32.4	27.8	12.0	27.8	2.65
How satisfied or dissatisfied are you with your access to transportation?	24.1	61.1	13.9	0.9	3.08

How satisfied or dissatisfied are you with your safety?	24.1	58.3	13.0	4.6	3.02

Source: Field survey, 2022

This can be attributed to the fact that the inhabitants recognized the value of the forest, which resulted in a sense of tranquility and contentment due to the benefits they derived from it. This is in line with Novianti *et al*., (2020) who reported in their study carried out in Indonesia that the environmental domain has been found to significantly predict happiness throughout life. Furthermore, it was revealed that the majority (mean=3.34) of dwellers were satisfied with the health service they derived from the forest. This implies that they made use of the herbal medicine most of the time in the study area in curing some infections. This assertion was collaborated by Mintah *et.al*., (2019) who stated in the study on the use of medical plants, that malaria, yellow fever, pile, stomach ulcers, wounds, and other illnesses were all treated with plant components.

Followed by a (mean 3.24) of the respondents who revealed that they are satisfied with their neighborhood as a place to live. This implies that the respondents were content staying and living in the forest environment. Also, the mean value of 3.06 was attributed to the respondents who revealed that they are satisfied with the forest food they eat in the forest environment. This was supported by the findings of Jendresen & Rasmussen (2022) who reported that through direct food provision, forest can make significant benefits to the nutrition quality of forest-proximate people. This suggested that most of the respondents are satisfied with natural forest food because most of the foods are gotten easily from forest rich soils.

4.4 Relationship between Personal Characteristics and Quality of Life

Table 5 demonstrates that there is no meaningful association between the sex (χ2 =0.018), age (χ2 =0.565), marital status (χ2 =5.819), group membership (χ2 =4.488), and quality of life.

Table 5. Relationship between Personal Characteristics and Quality of Life

Variable	χ^2	df	P	Decision
Sex	0.018	1	0.535	Not significant
Age	2.037	3	0.565	Not significant
Marital status	5.819	4	0.213	Not significant
Group membership	4.488	1	0.476	Not significant
Educational Qualification	8.334	3	0.040	Significant

Source: Field survey, 2022

This implies that respondents' sex, age, marital status, and group membership do not have influence on their quality of life. However, a significant relationship exists between an educational qualification (χ^2 =8.334), and respondents' quality of life. This implies that respondents with a high level of education have a higher quality of life.

4.5 Relationship between Forest Value and Quality of Life

Table 6 shows that there is a significant relationship between the forest values and the quality of life of respondents (r = 0.667, p =0.000).

Table 6. Relationship between Forest Value and Quality of Life

Items	**R**	**P**	**Decision**
forest value vs. quality of life	0.667**	0.000	Significant

Source: Field survey, 2022

This implies that the value derived from forests increases their quality of life. In essence, the value gotten from of forest contributed to the consciousness of dwellers of the forest resources within the environment. This in turn would result in sustainable use of natural resources and ultimately their quality of life.

5. CONCLUSION

Forests are valued for the provision of services, to satisfy human survival as shown by the result which affirmed the fact that forests are valued for social and economic benefits such as tourism, satisfaction, food, health, etc. It can also be concluded that the conservation of plant and animal species should be taken seriously because they are parts of the values derived from the forests. From the result gotten from this research work, demonstrates that men make up the bulk of the respondents and are slightly above the middle age bracket with diverse occupations in the communities. Also, the majority of those surveyed had tertiary education which assisted the dwellers in possessing knowledge on the value and the quality of life derived from the forest.

The majority of the dwellers believed that the forest values entail the provision of habitat for biodiversity support services such as nutrient recycling. Generally, the dwellers around the reserve embraced forest values in their entirety, while the study further shows that there is a positive correlation between forest value and the quality of life of the respondents in the study area.

The following is the recommendation made based on the findings of this study:

- Scientific knowledge and pharmaceutical development through forest values should be made known to the people in

the study area; this will help them to gain more knowledge about the scientific aspect of forests to treat ailments.

- Upholding spiritual beliefs relating to the forest should be well known to the people in the study area which will assist in passing it across to the generations unborn.
- Government should create a connection between the urban area and the surrounding forest with the goal of promoting local content.
- Special consideration should be paid to how local residents interpret rural quality and see forestry as a component of their social and physical environment, particularly in rural settings.

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