



# DEVELOPING NATURE-BASED TOURISM IN IMO STATE, NIGERIA THROUGH STAKEHOLDER ENGAGEMENT FOR BIODIVERSITY CONSERVATION

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## AUTHOR'S CONTRIBUTION

The sole author designed, analysed, interpreted and prepared the manuscript.

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## ABSTRACT

Rural communities in Imo state, Nigeria have for centuries preserved monkey habitats via traditional conservation practices (TCP). Research has barely addressed recurring human wildlife conflicts (HWC) and challenges faced by communities who derive no economic or social benefits from their monkeys. This study was aimed at investigating how nature-based tourism (NBT) development implemented through stakeholder engagement could aid biodiversity conservation. Adopting a qualitative method, in-depth interviews ( $n=25$ ) were conducted with key informants in Lagwa and Ejemekwuru and stakeholders outside the communities. Data was triangulated by observing human-monkey interactions in the locales and monkeys in habitats. Findings reveal that HWC persist due to reducing forest cover and residences/habitats proximity. Locals are uneasy but have no motivation to protect monkeys and habitats, so the TCP is waning. Identified stakeholders are enthusiastic, possess capacity to adopt and would support NBT development. Optimism was high that NBT would stem HWC, empower communities, provide income and help conservation. Processes for stakeholders to achieve conservation through NBT development are recommended. Clear and shared goals, consistent with community aspirations can be achieved by pursuit of conservation education in communities, improvement, reforestation and delineation of habitats. Concessions is recommended to multidisciplinary consortiums with proven technical and financial capabilities. This study could enhance policy and knowledge, while the recommendations would assist service providers, and initiate positive change in the investigated subject fields.

**Keywords:** Biodiversity conservation; human-wildlife conflicts; nature-based tourism; stakeholder engagement; multidisciplinary tourism concessions.

## 1. INTRODUCTION

For generations, African, Asian and South American peoples through traditional conservation practices (TCP) have preserved natural ecosystems with rare flora and fauna in informally designated locally protected areas (LPA). Using folklore, taboos, and religious teachings, enforced with local laws and legislations, habitat encroachment or destruction and

killing of specific animals have been prohibited [1,2]. Regrettably, climate change and human incursions into natural spaces have impacted global ecosystems of extraordinary biodiversity value. These harmful actions decrease the number of forest-dwelling animal species that free-range in natural spaces for their ecological needs. The loss of forests and related spaces that mitigate impacts of severe environmental consequences [3]; result in human-wildlife conflicts

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(HWC) in rural communities and also in some urban spaces.

As far back as 1994, [4] posited that tourism development in Padangtegal village, Bali, Indonesia enormously aided monkey conservation [5] also note that communities around Maasai Mara National Reserve, Kenya, are well positioned, derive advantages and reap from the links between tourism livelihoods and biodiversity protection. [6] further reveal that by accepting tourism, Boabeng-Fiema community in Bono East Region of Ghana ushered in potential for rural socio-economic development. A major component of these cases is that stakeholders' embrace tourism to aid biodiversity conservation. Scenarios like these, motivates the quest for solutions towards BC, by investigating nature-based tourism (NBT) development in Imo state, Nigeria.

Studies on TCP in Imo state, a part of the "biodiversity hotspots" of West Africa [7]; has focused on Lagwa, a rural community in Aboh Mbaise Local Government Area (LGA), where monkeys coexist with humans. Conflicts arise from lack of community benefits [8,9]; absence of compensation when monkeys destroy crops (90.28%) and crop raids (95.83%) resulting in the loss of interest in primate protection [10]; variance between TCP and community-perceived needs [11]. To reduce undue pressure on natural resources [12], suggest a family planning law to control human population growth and help preserve the environment. From the foregoing, it seems research on conservation in Imo state has been fragmented and while the challenges still persist. [13] appeal for urgent focus on wider aspects of conservation that consider the socio-ecological contexts of conservation. The dearth of studies on NBT development, a relatively uncharted approach for addressing conservation challenges in Imo state, creates a knowledge gap worthy of investigation. Hence, this study is aimed at exploring NBT development through stakeholder engagement to aid biodiversity conservation (BC). The study has three key objectives:

- To analyse stakeholder perceptions of current TCP in communities of Imo state.
- To identify key stakeholders for collective actions to support conservation.
- To explore stakeholders' willingness and capacity for NBT development in Imo state.

This study highlights sustainable benefits that can accrue to stakeholders from resident wildlife. A qualitative approach is adopted, using field

observations and semi-structured interviews for data collection. Stakeholder responses were thematically analyzed to arrive at conclusions and recommendations, which offer insights and guidance to community, policymakers, practitioners, government, thereby forming a foundation for future research academic activities.

## 2. LITERATURE REVIEW

### 2.1 Biodiversity, Hotspots and Conservation

In 1985 Walter G. Rosen brought biodiversity to scientific prominence [14]. Coined from "*biological diversity*", as a foundation of human life, it is the variation among living species from all sources of the world. These include terrestrial habitats, marine and other aquatic sources of life support system, which provides fresh air, food, and water for species. As a major concern in this climate change era, it is related to environmental fields like conservation, ecology, and environmental policy [3].

Entomologist E.O. Wilson, popularized biodiversity in the 1980s, warning about its impending loss and future harmful consequences. The 1988 research by British ecologist Norman Meyers, designated ten tropical forests where plant endemism and habitat loss were quite prevalent as "*biodiversity hotspots*" [15]. In 1989, Conservation International (CI) defined, promoted and established the term "*hotspots*". Conservation is the management of a natural resource to prevent its exploitation, destruction or neglect, entails preservation of species variety, DNA, ecosystems, and environmental roles [16]. Researchers and governing bodies define BC as the ethical use and protection of readily available natural resources, particularly flora (plants) and fauna (animals). By funding the Critical Ecosystem Partnership Fund (CEPF), CI safeguards biodiversity hotspots to increase human well-being, developing biological, rather than political borders, with activities and alliances in the world's most ecologically rich yet vulnerable places. CEPF stakeholders collectively advocate conservation actions in places where humans and primates coexist.

In several places of Africa, efforts to increase the effectiveness of protected areas (PA) and improve livelihoods of local communities through cooperation has been intensified, thereby creating mutually beneficial relationships [17].

### 2.2 Locally Protected Areas (LPA) and Human-Wildlife Conflicts (HWC)

Community-based institutions have protected religious and cultural belief systems [18]; often

regulating or offering limited access to forests designated as religious grounds with cultural significance and functioning as LPA. As domiciles of local deities, initiation ceremony sites, or worship [11]; some harbour plants believed to cure illnesses which defy conventional medicine [19]. However, TCP may be waning or ineffective, with LPA in Imo State also facing challenges due to declining support and increasing human intrusion. Reducing natural habitats cause interactions between wild animals and people, often resulting in detrimental effects on people, resources, wildlife and habitats. Destruction of agricultural resources is a major cause of conflict [9,10]; due to loss of primate habitats and food scarcity. Contrary to earlier thinking, HWC also occur in suburban areas as human population growth and developmental expansion persists into wildlife habitats [20].

### 2.3 Declining Biodiversity

Environmental and human factors in forests result in strain on ecosystems. The West African Guinean Forests, a global conservation priority space termed “biodiversity hotspots”, with diverse and endangered species share of these consequences. Between 2000 and 2005, fifty-six percent (55.7%) of Nigerian forests was lost due to deforestation and by 2020, about 978,000 square meters of natural forest was lost [21]. Regrettably, growing demand for primates and birds, trade in wood and non-timber species plus other factors, cause pressure on forests. Economic policies, corruption, inefficient law enforcement, and ineffectual legislation are also culprits.

Nigeria has several climatic and biological zones (Fig. 1), with an abundant distribution of monkeys in the southern regions [22]. Various species conserved through TCP habit Imo, Cross River, Enugu and Ebonyi states [7]; but without benefits to communities and persistent HWC.

### 2.4 Monkeys in Imo State

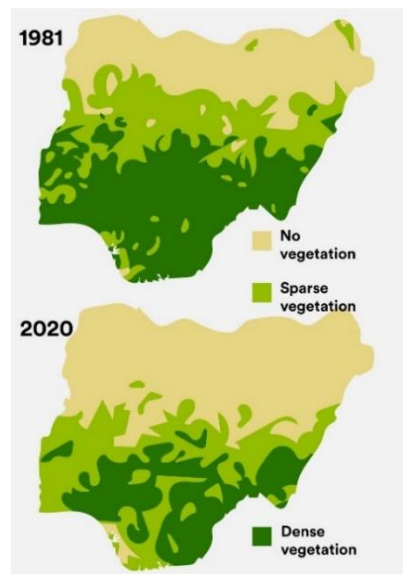
Slater's guenons are endemic to South-Eastern Nigeria [18]; Tantalus and Mona monkeys [23,7] are abundantly distributed in the same zone. Lagwa, is a documented habitat for Slater Guenons. Mona monkeys are sighted in Oguta, LGA [24]. [25] identified monkey habitats at Imerienwe, in Ngor-Okpala LGA; Akata and Amo-Ommama in Oru East LGA and Amuzu in Aboh Mbaise LGA; Ejemekwuru and Ezi-Orsu in Oguta LGA, and Amazu in Orlu LGA. Some of these communities forbid the killing of

monkeys, but sacred groves destruction for physical development persists, resulting in HWC.

Though some residents perceive TCP negatively [18]; and Christianity has eased attitudes toward traditional norms, people's adherence is still driven by their fear of supernatural wrath. The close proximity of human dwellings to monkey colonies may be one of the causes of elevated HWC incidence in communities. It is therefore crucial to develop of innovative and sustainable ways that can guarantee cooperation, partnerships, education and information exchange, to address HWC. [26] observe that managing complicated conservation issues through a single discipline might be difficult, and suggest interdisciplinary research endeavours. In some emerging economies, tourism promotion assures success of conservation initiatives in protected areas leveraging conservation for economic growth [27]. Most researchers feel that by recognizing the relevance of social circumstances and the effects of conservation, linked disciplines are perfectly positioned to complement each other's work [28] suggest that tourism is a complementary field that can make substantial contributions to conservation.

### 2.5 Nature-Based Tourism (NBT)

Tourism connotes people's movement from their usual places of residence to other places for non-business reasons, for a period of more than one day and up to one year. In 2021 tourism contributed \$US5.81 trillion to global GDP, an increase of about \$US1.00 trillion and a 21.7% increase over 2020 figures, due to the COVID-19 pandemic-induced downturn [29]. Linked to other sectors like transport, hospitality, entertainment, recreation and environment [30]; tourism as a force behind the economic growth and job creation in emerging economies and destinations that develop facilities to attract tourists. In Africa, destinations are focusing on NBT, eco-tourism and cultural tourism, which rely on natural and scenic environments, with manifesting potential to promote local economic development. [31] defines NBT as tourism that is primarily focused on natural resources, such as relatively unspoiled parks, natural areas, wildlife reserves, and other protected ecosystems. Through visits of this types, tourists also learn about the value of biodiversity and conservation. While experiencing powerful manifestations of natural scenes, tourists engage with local peoples and local cultures. Imo state has significant potential to harness NBT for growth.



**Fig. 1. Deforestation in Nigeria**

*Source: Olutoyin (2017)*

## 2.6 Successful Primate Tourism for Conservation Initiatives

Wildlife-induced trips and tours to natural environments have steadily developed to become the tourist industry's most significant feature [32]. With primates functioning as emblematic species that inspire people to protect their forests and animals [33]; monkeys have emerged as important tourist resources [34]; resulting in the development of NBT with an emphasis on primates to aid biodiversity conservation. [35] also report how gorilla tourism has become an important strategy for conservation. Two notable examples are Rwanda and Uganda, which are the only countries where mountain gorillas can be viewed securely in the world. Tourist numbers have climbed greatly since the end of the Rwandan conflict and Gorilla tourism revenue is channeled towards national parks and conservation efforts.

## 2.7 Stakeholder Engagement in Biodiversity Conservation

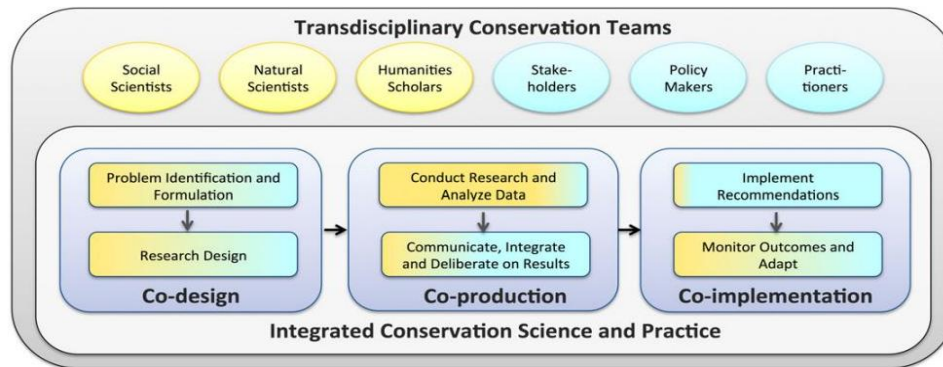
Biodiversity conservation is a multi-faceted phenomenon with social dimensions. [36] suggest the involvement of diverse methods and approaches to ensure progress in conserving biodiversity, since reliance on only natural science methods would not be sufficient to address its complex issues and challenges. [37] proposed that as a multidisciplinary endeavor, conservation requires the integration of social sciences (Fig. 2).

In the opinion of [38], stakeholders are crucial to the successful execution of projects, and their

engagement offer assistance and cooperations to enable implementation and solution development. Conservation in shared spaces can be achieved by balancing the biological needs of wildlife with local populations' needs and compensating for losses caused when wildlife venture outside of protected areas [39]. It becomes vital to explore stakeholder-induced value-added actions that offer sustainable livelihood options to communities.

Collaboration opportunities for practitioners, policymakers, academics, and others should be taken advantage of. While emphasis on stakeholder processes focuses on integrating environmental, economic and social aims of biodiversity conservation plans [40]; it is vital to recognize problems as shared ones and engage parties with clear goals and transparency [41,42]. Hence, [37] proposes four themes to consider, namely; legitimacy and acceptability of conservation management, ecological results, social implications, and ecological outcomes. The criteria can help detect conservation elements, policies, and practices that local populations could support or oppose.

For effective, meaningful, and efficient use of resources, stakeholder education is essential. However, [43] suggest that engagement's goals should be clear from the start to reduce obstacles. Stakeholder identification and determination of whether they would adequately represent the affected constituencies are essential components of stakeholder engagement. Involving a wide variety of stakeholders from social, cultural, environment and political sectors in planning is challenging and time-



**Fig. 2. Transdisciplinary conservation teams**

Source: Bennett et al. 2016

consuming, but has substantial benefits for sustainability according to [44]. Some environmental policy interventions fail due to inadequate engagement of local citizens in decision making, so community people's roles should not be limited to nominal levels. It should be early during planning, development, implementation, and at evaluation [45].

According to [46], participation by non-governmental groups, academics, public agencies, and the commercial sector who could be identified or referred, guarantees effective implementation of programs. Other major stakeholders include the travel industry, academia, the community, civil society and, the media. [47] argue that different pressures and positions can emerge, as each of these groups frequently have competing interests, visions, and demands. It would be crucial to adaptable flexible methods to deal with and manage power dynamics that result, and as well deal with difficulties of resolving conflicting interests while working to preserve ecosystem functions.

Community involvement beyond the status quo is encouraged as a tactic to hasten and scale up the ambition of the changes in technological, sociopolitical, and economic considerations necessary to address environmental challenges [48]. Their participation in conservation efforts promotes responsibility and provides important information about their environment. This calls for the inclusion of monitoring systems that permit participation from individuals with little to no formal scientific training.

## 2.8 Theoretical Framework

Stakeholder theory (ST) [49] and resource-based view (RBV) [50] provide this study's frame of reference. The premise for these frameworks is that tourism destinations can be created by integrating and aligning potential with collective actions, policies, and strategies, drawing on the unique or distinctive

resources and traits a place offers. While ST suggests that managers adopt as a unit of analysis, relationships between business, groups or individuals who can affect or are affected by it, RBV is a management paradigm that identifies strategic resources an entity can use to gain long-term competitive advantage.

Freeman [49], Boiral [46], defines stakeholders as "any group or individual who is influenced by or has the ability to affect the accomplishment of any of an organization's objectives". The theory's focus is on the importance of interests and needs that are beyond financial. Adopting this definition, a business can be defined as a collection of relationships among parties with stakes in the many activities that make up the business. It is linked to notions of involvement and community participation. RBV is recently and conveniently applied in tourism [51]; but developed in the domains of economics, management, and general business. It focuses attention on an entity's internal environment to identify those resources, skills, and competencies with potentials for competitive advantages.

## 3. METHODS

### 3.1 Study Setting

The aim of this study is to explore collective action of stakeholders to biodiversity conservation through NBT development in Imo State, Nigeria. Factors that influence the abilities, desires and willingness of the key system actors to participate collectively are assessed. Imo state, a densely-populated area was chosen as a result of the considerable number of monkey species, including Sclater's guenons and Mona monkeys inhabiting many communities. As part of the Niger Delta region, the state has 27 (Twenty-Seven) Local Government Areas (LGAs) and with Owerri as capital city. Lying between Latitudes 4° 45'N and 7°15' and Longitudes 6°50'E and 7°25', Imo

is bounded to the East, North, South and West by Abia, Anambra, Rivers and Delta States and the River Niger respectively. It covers 5,530 square kilometers [52]; and primarily occupied by Igbo-speaking Christians, some traditional religious worshipers in villages and Muslims residing along Douglas Road, Owerri and Obinze in Owerri West LGA.

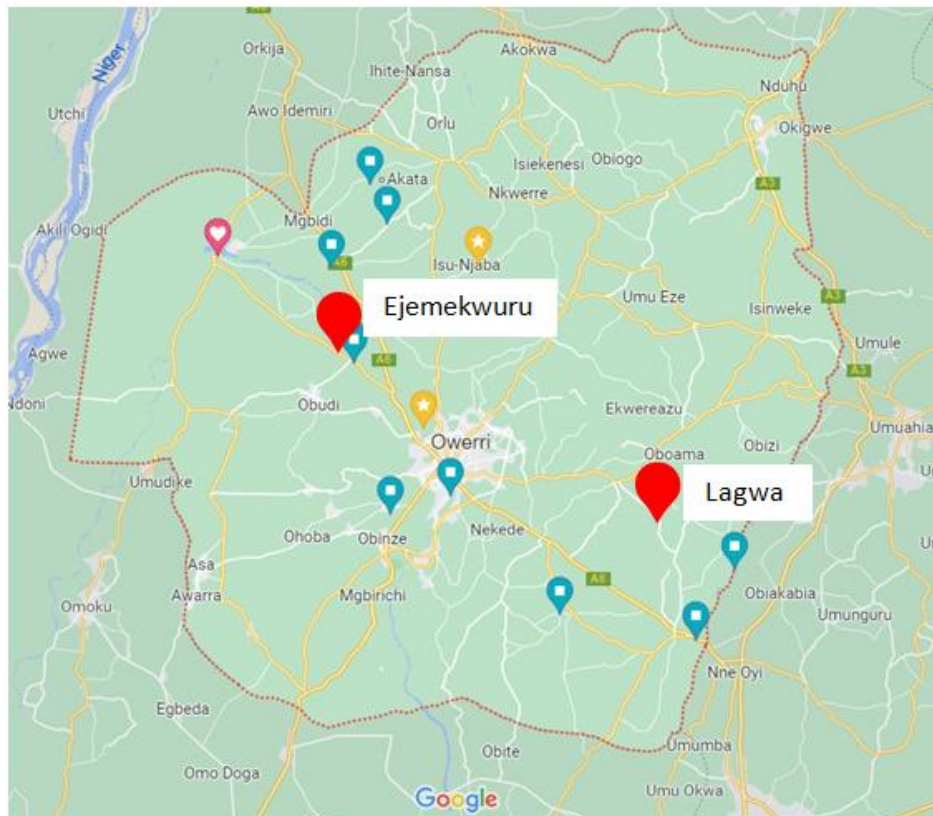
The International Union for Conservation of Nature’s Red List of Threatened Species, categorized Sclater’s guenon (*Nigerian monkey*) as endangered with a decreasing population trend across its geographical habitat range [53]. Large populations the species chiefly inhabit the eastern part of the Niger Delta and do not live in officially protected areas, wildlife sanctuaries or national parks.

The two communities chosen for the study, who’s locations are shown in Fig. 3 are Lagwa, in Aboh-Mbaise LGA, a popular habitat for Sclaters monkeys [11]; and Ejemekwuru, Oguta LGA where Mona monkeys are in habitation. Both are in the same ecological zone with similar vegetation densities and with base in Owerri capital city, tourists can spend under one hour by road to any of these communities. In Lagwa, the villages visited were Eziudo, Umunokwu, Umuosi, Okwuta and Obo, while

Umuakum, Umuagwu and Umuoduwa villages were visited at Ejemekuru. Both communities are prone to HWC. Though HWC reports varied significantly across the villages, Lagwa had the greatest and most reported incidences, possibly due the presence of more monkeys. Diversity, livelihoods, popularity, accessibility, forest resource dependencies and previous research interest were major considerations for the choice of these communities.

### 3.2 Study Approach

This exploratory study conducted between August 2021 and September 2022 adopted a qualitative approach, utilizing semi-structured interviews and participant observation. Groups of persons who are informed about community activities or the field of interest were selected from identified stakeholder groups and interviewed. From the community, key informants (KI), made up of residents and community leaders provided information from a local perspective. External stakeholders like experts, practitioners and entrepreneurs were also interviewed. To enhance qualitative findings, triangulation was used to aid corroboration and validation of data collection. In addition to participant observation of KIs in the



**Fig. 3. Map of Imo State showing Lagwa and Ejemekwuru communities**  
 Source: Google 2022

community, a binoculars and camera were used to observe and document monkeys in their habitats. Literature provided data on TCP, LPA, HWC, biodiversity conservation, and SE. To enhance active engagement and involvement of the researcher and the participant being interviewed, respondents were allowed to think thoroughly about depth and concerns, to justify, analyze, and clarify them for adequate illustration [54].

Respondents provided free and detailed responses to interview questions, so they offered their experiences and whatever conceptions they had during the interviews. With this, influence of one's own prejudices was lessened, and examples of biodiversity conservation from real-life settings, were highlighted, especially by the KI. For environmental triangulation, multiple village settings in the two communities were used to determine if different circumstances may influence the information gathered [55]. Additional data was sourced from Government agencies and NGO websites. Combining these methods strengthened the study's insights to elucidate the subject of enquiry, improve validity, generate a more detailed image, to understand the research problem [56]. Fieldnotes of observations and interview responses were made.

### 3.3 Sampling Method and Sample Size

Purposive sampling method was used and focused on available, but conceptually important or informative participants. Potential interviewees were informed about the study's purpose and why they were selected. Individual consent was sought verbally and each was informed that he/she could decline to participate or withdraw at any time. Knowledge of English language and experience in tourism, conservation, various practice levels in government, academia; community residence or leadership were used as criteria for choosing the informants/stakeholders [57]. All were above 18 years of age and gender balance was ensured with eight (8) women participating. Qualitative research focuses particularly the variation in meanings, which typically emphasizes on the "how

and why" a certain issue or event occurs. Between 5 and 25 persons is required for semi-structured interviews [58]; but scholarly consensus of between 5 and 50 participants is adequate [59]. To adequately examine subject characteristics, identify variations, clarify relationships and give opportunities to investigate negative cases, 25 (Twenty-five) participants were interviewed. They include 13 community-based informants and 12 professional stakeholders from outside the locales.

### 3.4 Results

Two indigenes, each of the two study sites assisted with interviews in the communities. A pilot interview with 6 (six) persons was conducted and recorded with mobile smartphones, to review the effectiveness of each interview question. Stakeholder interviews were conducted, with follow ups affect any desired modifications [60]. 4 (Four) persons opted for telephone interviews. Field notes were made and raw data were transcribed. An inductive approach was used to analyse the data, which were organized using a thematic analysis and sub heads (Table 1).

### 3.5 Data Analysis

Thematic analysis was adopted to uncover, analyze, and show patterns derived from data [61]. Themes develop from and are considered inductive when data collection and analysis occur concurrently. In qualitative analysis, a theme emerges when essential aspects of data in relation to a study's objectives are captured. Relevant assertions and remarks were selected, tagged, and separated by color to provide initial codes. The resulting themes were arranged into final themes after being initially examined for consistency and reliability. Every piece of data in a theme reflects a different element of an event. Data comprehension was made possible by theme identification and the cogent development of the analysis, as advised by [61]. For additional statistical data analysis, the generated data were exported into Microsoft Excel 2019.

**Table 1. Semi-structured open ended interview questions**

S/No	Stakeholder Perspectives	Domain
1	What are your perspectives about monkeys and human coexistence in rural communities?	Social
2	What benefits do host communities derive from the presence of monkeys?	Economic
3	What are your views about tourists visiting to see monkeys in communities?	Tourism
4	What situations can encourage tourists to visit rural host communities to see the monkeys?	Tourism
5	How can stakeholders ensure conducive environment for humans and monkeys?	Environment
6	Which other stakeholders can be involved in developing NBT based on the presence of monkeys in the community?	Partnerships

*Adapted from Holladay & Powell (2016)*

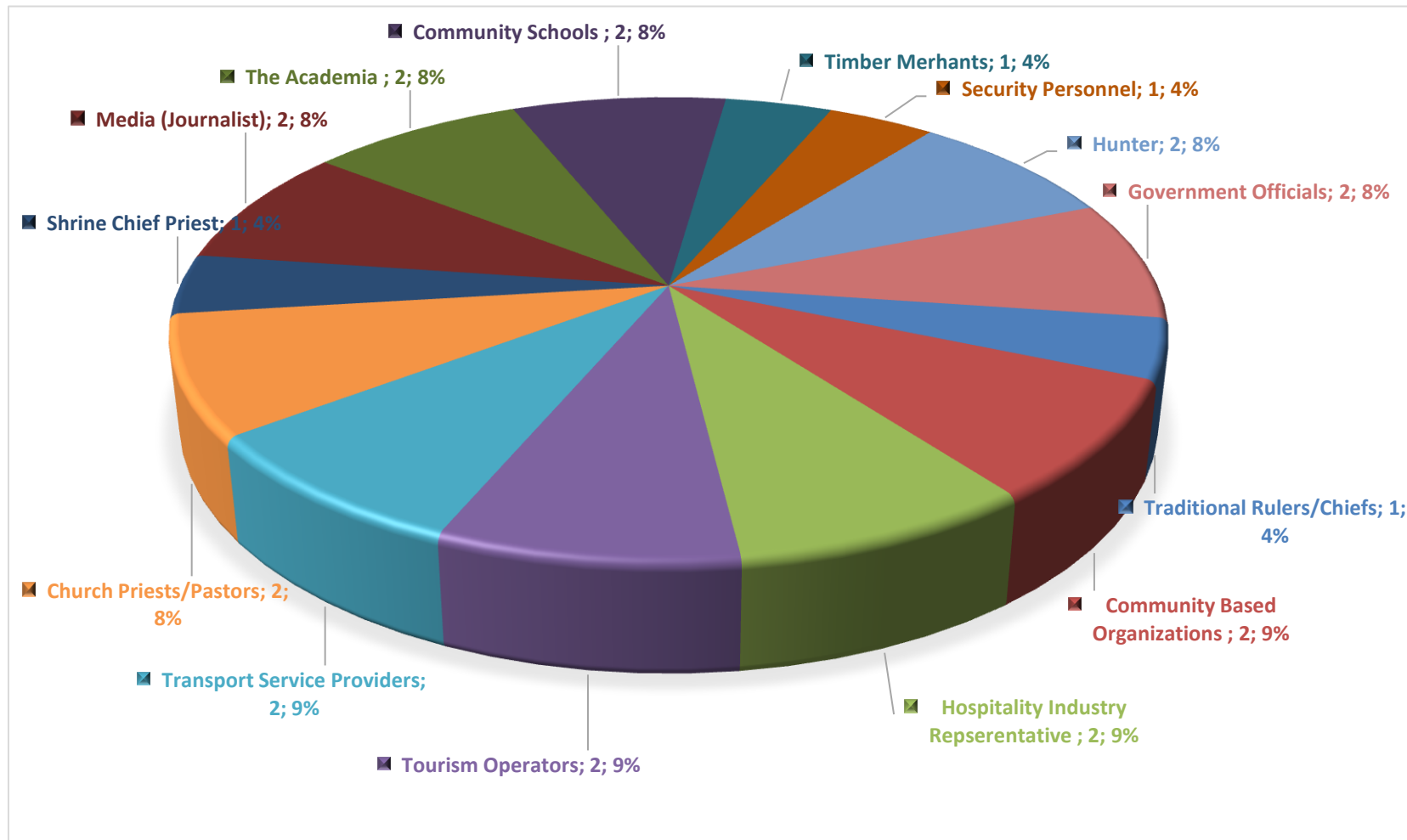


Fig. 4. Respondents: Community informants and Stakeholders



### 3.6 Findings

#### a. Respondents profile:

To ascertain how collective action focusing on NBT development could help conservation, six questions set as interview guides were posed to respondents selected from stakeholder groups. They were persons suggested, nominated or identified within and outside the communities. A total 25 (twenty-five) were interviewed. Community-based informants made up forty-two (42%) and non-community-based stakeholders accounted for fifty-eight (58%) of study participants. Their professions/occupations include academic, transport, farming, hunting, religion, trade, security, traditional leadership, government and tourism (Fig. 2). Many community-based informants are either farmers or have gardens at home which are also at risk of invasion by the monkeys.

#### b. Summary of stakeholders' responses:

Table 2 summaries the replies of key informants, who are community-based respondents. Monkeys are destructive, but they are not willing to harm them and desire conservation that will be of mutual benefit. Though unaware of NBT, they welcome it and eagerly look forward to it.

Table 3 summarizes the responses of non-community stakeholders. They suggest habitats' enhancement, conservation education and more government commitment to develop NBT.

#### c. Emerging themes

Six themes emerged from thematic analysis of the replies to the open-ended interviews conducted.

### 4. DISCUSSION

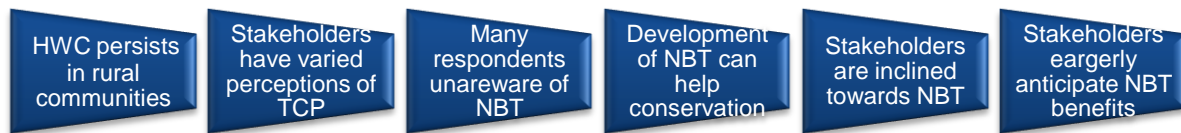
Considering the paucity of natural resources in other parts of the world, the diversity of species in Africa has brought the continent to the forefront of NBT. This sector and its value are expected to grow as the continent's position is guaranteed and advancing faster than the worldwide average [62]. This study investigated how stakeholder actions to develop NBT can help BC in rural communities of Imo state, Nigeria. Current TCP was analyzed, key stakeholders were identified and the study set out to achieve the research objectives to provide an understanding of the stakeholders' perspectives on biodiversity conservation aided by NBT development.

**Table 2. Summary of Responses (Community-based Stakeholders - Key Informants)**

Interview Questions	Summarised Responses
What are your perspectives about monkeys and human coexistence in rural communities?	Though unwilling to harm monkeys, some residents have negative views about them, regarding them as threats to humans and menace to crops. Some suggest the eradication of monkeys by hunting or tree destruction. Most residents suggest that HWC occur because the habitats are close to people's homes.
What benefits do host communities derive from the presence of monkeys?	Most informants see no benefits from the monkeys. They say monkeys are noisy, dirty, scary, defecate indiscriminately and are possible disease mediums. About two-third of respondents believe monkeys have spiritual significance and should be left alone in the communities and habitats and people know they exist there.
What are your views about tourists visiting to see monkeys in communities?	Respondents are not aware of NBT but are eager to see its vigorous pursuit and immediate implementation. They see it as something positive that the presence of monkeys could bring. Tourist visits would also make their communities popular.
What situations can encourage tourists to visit rural host communities to see the monkeys?	People are unhappy with state of infrastructure in rural areas and seek intervention in areas like good roads, electricity, water, enhancement of schools and security. These conditions encourage tourism. Monkeys should be inside habitats, to reduce searching everywhere when visiting the community.
How can stakeholders ensure conducive environment for humans and monkeys?	Many respondents advocate for more government commitment by assisting communities with NBT plans to help conservation. They ask government for alternative livelihood means if they discourage dependence on forest resources.
Which other stakeholders can be involved in developing NBT, based on the presence of monkeys in the community?	Government is seen as principal partner to develop and drive the NBT and should take more decisive part in tourism development and conservation. They would be happy if other means of sustenance are introduced with the NBT. Government, companies, universities, NGOs can also train young to become guides to show people around, craft makers or even cultural entertainers for tourists.

**Table 3. Summary of responses (Non-Community based Stakeholders)**

Interview Questions	Summarised Responses
What are your perspectives about monkeys and human coexistence in rural communities?	Non-community-based stakeholders suggest enhancement and promotion of habitat conservation to maintain the naturalness of rural communities. They lament the environmental and noise pollution in cities and natural environments in rural areas should be maintained to give visitors opportunities to rejuvenate.
What benefits do host communities derive from the presence of monkeys?	Most non-community-based stakeholders mention that the monkeys have important biodiversity relevance. Some suggest that communities should develop resources to enhance the opportunities for the monkeys to bring benefits to them.
What are your views about tourists visiting to see monkeys in communities?	NBT was seen as a good initiative and a benefit from the presence of monkeys in Imo state. Pro-tourism stakeholders request that NBT be vigorously pursued and implemented immediately as a product that the state can promote.
What situations can encourage tourists to visit rural host communities to see the monkeys?	Most stakeholders believe that critical infrastructure are major conditions for tourism in rural areas, and people would establish support facilities for tourists' use. Some say that as key attractions, monkeys should be kept within designated habitats, instead of roaming everywhere in the community. Many respondents say vital factors for NBT success include residents' friendliness, government presence, marketing of other cultural offerings of the monkey host communities.
How can stakeholders ensure conducive environment for humans and monkeys?	Most stakeholders submit that the community people are custodians, so they should protect their monkeys, ensure harmony with humans and provide tourists with insights about the monkeys and habitats. Others want more government intervention that can assisting community with NBT plans to help conservation.
Which other stakeholders can be involved in developing NBT, based on the presence of monkeys in the community?	For most stakeholders, government is the principal partner to develop and drive NBT. They suggest that community enforce local laws and regulations; local governments can provide basic infrastructure while state government develop other key infrastructure. Others think that, entrepreneurs, business and visitors have roles in the process also. Local residents can make arts and crafts for tourists.



**Fig. 5. Six emerging themes**

- *Objective 1: To analyse stakeholder perceptions of TCP in communities of Imo state.*

Monkeys in Imo State’s rural communities are endangered, though their continued presence in the two surveyed communities is mainly due to protection accorded them due to their religious status [18]. TCP is weakening in Lagwa as a result the destructive nature of monkeys, habitats’ close proximity to homes. Responses include: “*We benefit nothing from the monkeys, but do not know what to do about them and can’t kill them*”. With more land area but fewer monkeys, Ejemekwuru pressure on the community is relatively lower, but food raids on crops still persist due to fading forest cover. While seeking outside habitats, monkeys confront humans. Ejemekwuru people are willing to provide and re-forest land with fruits trees to relocate monkeys. While monkeys tend to migrate periodically, some people say “*our monkeys make our community popular*”. Though majority do not show pride in this aspect of heritage, thinking it is backward, others are worried that

monkeys spread diseases. Generally, locals cannot do much about the monkeys, since they have inhabited the communities for ages. A handful of locals still feel monkeys are “*messengers of the gods and should be preserved by natural means*”. Stakeholders say “*those monkeys make the communities popular*”. Others comments: “*there must be environmental or biological significance for their presence*”. Hence, varied perceptions still exist about monkey presence.

- *Objective 2: To identify key stakeholders for collective actions to support conservation.*

As one of the more complicated conservation issues, competing users' demand for land drives its hunger. These and religious perspectives prompt agitations to remove habitats, inadvertently reducing traditional conservation of monkeys. Conservation governance was identified as crucial, but careful introduction and acceptability of stakeholder engagement would positively influence the community perspectives and

biodiversity actions. Contemporary issues such as biodiversity conservation, NBT, or the environment are not adequately discussed or promoted in communities. So, responses include *“the state government agencies should seriously commit to maintaining the habitats of the primates and stem deforestation in order to conserve the primates”*. Communities with unique natural resources attract global attention and have potential to provide visitors the opportunities to experience nature manifestations and various local cultural offerings [63]. Communities benefit from the incomes made from tourists. From this perspective, local communities can offer visitors opportunities to learn about their environments, ecology, and conservation practices and also enjoy their cultural heritage. The level of understanding or awareness of the NBT among respondents was minimal. A significant proportion of both community people, experts and professionals *“say we are not aware of this NBT”*. While conventional tourist training has focused on resource management and marketing, planners should prioritize educating and training for all stakeholders. This will make it easier to incorporate the viewpoints and interests of various stakeholder groups while also arming them with the information they need to participate actively and meaningfully to make judicious decisions [64].

- *Objective 3: To explore stakeholders’ willingness and capacity for NBT development.*

Many cultural and natural resources exist in Imo state. Hence, entrepreneurs have established hospitality facilities, with occupancy spiking on weekends and holidays. Developing more tourism offerings can expand the tourism milieu of the state and reduce seasonality [51]. While seeking leisure in natural environments is a significant part of tourism, people also desire to learn about conservation while on nature trips, so respondents agree that monkeys could bring tourists to villages and increase their popularity. An enthusiastic local female respondent opined, *“I will borrow money to establish a restaurant and my husband will set up a bar for tourists”*. Local people and particularly of Lagwa community should be fully informed about the special status of their monkeys, termed *“Nigerian Monkey”*, which are found only in Nigeria and should be safeguarded [23]. NBT has potentials to create jobs and boost host community’s ability to generate income. Locals and stakeholders suggest that *“we all have a better chance of benefiting together from this tourism initiative”*. Being a component of the tourist product, everyone’s participation and cooperation is vital. Wider stakeholder engagement is vital in developing, designing and realizing NBT. Non-community people

responses include: *“local support for such initiatives is critical”*. Local citizens may interpret the imposition of projects or processes as outside influence, and could resist [63]. However, stakeholder supported NBT can encourage positive community attitudes towards environmental conservation. As a community leader opined, *“however, we should be carried along so we don’t have conflicts with the initiators and government or even the tourists before these things are done”*. Corroborating the previous comment, a non-community respondent noted *“the communities may clamour for resource control, like in the Niger Delta”*. Benefit leakage, financial difficulties and community participation concerns, are possible so community participation should consider empowerment and safeguarding of cultural treasures.

## 5. CONCLUSION

Human land demand and climate change factors contribute to biodiversity loss. These changes include habitat quality reduction, fragmentation, loss of natural plant cover, and density. Available research and fragmented decision-making are yet to offer the desired success and rarely adopt stakeholder engagement that harness tourism for conservation. By investigating prospects for conservation through NBT development, this study seeks collaborative actions based on integrating stakeholders. This urges parties to work together to achieve the major goal by developing and sustaining multidimensional techniques for NBT development to aid conservation. This will increase tourist interest in communities, help to establish and preserve destination identity, and promote community brand. Conscious, delineation, expansion and re-forestation of habitats and re-population with fruit trees is advocated. Proper planning of NBT is required to determine mode of its development, provide spatial implications and suggestions for planning and managing tourism outcomes, and concession could be explored. The study’s limitation is that community participants have no knowledge of NBT, and do not fully understand its direction of thought. Some are apprehensive that government could take away their lands and kill their monkeys, hence education and awareness creation is needed prior to introducing the concept of NBT.

## 6. RECOMMENDATIONS

This study offers a background for policy, practice and future scholarly endeavors, using Lagwa and Ejemekwuru in Imo State, Nigeria as study sites. The following recommendations are made:

1. To help the survival of monkeys that depend on failsafe natural food supply, delineation and

improvement through reforestation with indigenous fruit trees and expansion of habitats is encouraged.

2. The state government, in collaboration with informed stakeholders, should create standard operational guidelines (SOG) for NBT development and management in LPA. This should include guidance on creative NBT development methods and visitor management.
3. Government should collaborate with key stakeholders and local communities to provide infrastructure, particularly roads and security that tourists would need when visiting to enjoy rural areas. This should include mechanisms for product development and joint marketing, to ensure communities earn revenue via user fees, permits and donations.
4. Establishment of visitor centres, research projects and NBT education programmes in communities where monkeys exist, to increase CB and NBT consciousness.
5. Stakeholder engagements and partnerships, should be planned to achieve clear and shared conservation and sustainable goals consistent with community development aspirations.
6. Explore concessions of LPA to multidisciplinary consortiums of CBOs, NGOs and private sector with technical and financial capacity for NBT that would favour conservation.

## CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

## COMPETING INTERESTS

Author has declared that no competing interests exist.

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