



Survey on the Level of Awareness about Cites and Wild Life Management in Nigeria

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Abstract

The conservation and sustainable management of wildlife and their habitats are essential for ecological balance and biodiversity preservation. In Nigeria, renowned for its diverse flora and fauna, effective wildlife management practices are imperative. Nigeria became a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1974 and ratified it in 1975, thereby assuming the responsibility of implementing all relevant provisions within the country. Evaluating the awareness level of CITES and wildlife management in Nigeria is crucial to assess the potential effectiveness of CITES implementation. This assessment was conducted through questionnaires distributed to Critical Stakeholders, employing person-to-person contact. The results indicated a majority of male stakeholders (66.5%), primarily aged between 30-40 years (66%). Notably, the largest percentage of respondents (24.4%) hailed from the Ministry of Environment. The findings underscored a suboptimal level of awareness among Critical Stakeholders, necessitating urgent attention. It is evident that a comprehensive understanding of CITES in Nigeria influences the proper conservation attitude towards wildlife species. Consequently, there is a pressing need for widespread sensitization and Conservation Education (CE) across all levels of governance.

Keywords: CITES, Wildlife managements, Stakeholders, Awareness

Introduction

The global perspective on wildlife management encompasses a variety of approaches, values, and practices aimed at balancing the conservation of wildlife with human needs and activities. Wildlife management plays a crucial role in the conservation and sustainable use of biodiversity, especially in African countries including Nigeria, a country with diverse ecosystems and rich wildlife populations Lindsey et al., (2012). However, effective wildlife management requires not only sound policies and regulations but also awareness and active participation from local communities and stakeholders. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international agreement that aims to ensure the survival of wild animals and plants by regulating their trade. Nigeria signed and ratified CITES in 1974 and 1975 respectively, hence it is obliged to the responsibilities of implementing all relevant

texts of the Convention. Raising awareness on CITES implementation in Nigeria should be the first step to mainstream wildlife management into the different sectors of government and NGOs. Therefore conserved effort on creation of awareness amongst critical stakeholders (CSH) are very necessary to gain more support in the management of wildlife and CITES.

Wildlife in Nigeria face numerous threats which impede on their sustainability. Top among these threats is poaching, which has reduced populations of some of the country's important species such as the elephants, and hippopotamus (Okonkwo, 2015). The animals are a source of bush meat especially in the rural areas where hunting is very rampant. Extensive deforestation is also one of the major factors leading to habitat loss in Nigeria (NBSAP, 2016).

The lack of involvement of critical stakeholders in decision making process and in conservation issues are important determinant of negative

attitudes towards conservation of wildlife species (Silori, 2007). The aspect of CSHs awareness with regards to domestication of CITES in Nigeria's National legislation has not yet been investigated. Therefore the need for determining CSH awareness about CITES in Nigeria would lead to better implementation of the CITES in Nigeria. Smith and Anderson (2007) reported that attitude which is summed as awareness and perception toward wildlife species and the perceptions of management practices affect people's attitudes. As human population increases the necessities of life also increases. Nigeria has faced numerous challenges related to wildlife management such as illegal hunting, wildlife trafficking, habitat destruction, and human-wildlife conflicts. Therefore it is crucial to gauge the level of awareness about CITES regulations and the importance of wildlife conservation for sustainable wildlife management practices. The aim of the study is to assess the level of awareness about CITES and perception of stakeholders towards conservation of species and hence provide recommendations on the need to conserve species to prevent extinction.

MATERIAL AND METHODS

Description of the Study Area

Nigeria is a famous country in West Africa, with geographical coordinates of 9.0820° N latitude and 8.6753° E longitude. It has an estimated population of over two hundred million people (World Population Review, 2022). The country has six distinct agro-ecological zones transiting in south- north direction from the Atlantic coast to the arid savanna of Sahel. Figure 1 shows the zones which are the Mangrove Swamp, Rainforest, Derived savanna, Guinea savanna, Sudan savanna and Sahel savanna zones. These zones harbor different wildlife species. The study was conducted within four (4) geopolitical zones in Nigeria namely: South - South; South -West; North - Central and North-East.

Data Collection

Preliminary consultations

Relevant government agencies which include, National Environmental Standard Regulation and Enforcement Agency (NESREA), National Park Service (NPS), Nigeria Immigration Service (NIS), Nigeria Customs Service (NCS),

Forestry Research Institute of Nigeria (FRIN), and private organizations such as AIRLINES, Hunters, Potted Plants Associations, NGOs, Civil Society Organizations, (CSOs) and other Critical stakeholders (CSH) were visited because of their relevance in the management of wildlife resources. Consultations of related books, Policy documents, Journals, Web sites, Internet based materials and related reports for the analysis and interpretations of the findings from this research, the information obtained are used as secondary data. The process of collection of primary and secondary data started with identifications of all relevant CSH who are directly or indirectly involved in the management and conservation of wildlife and CITES management in Nigeria.

Primary and Secondary Data

Primary and secondary data was collected from all relevant stakeholders who are directly or indirectly involved in the management and conservation of wildlife and CITES management in Nigeria. Informal interviews and direct contact observations were conducted on critical stakeholders (CSH) to obtain primary information (Participatory Rapid Appraisal, PRA) survey as adopted by Adolph (1999) and Ellis (2000). This tool was used because it makes CSH to share, present and also analyse critical information, facts and experiences that are relevant to the implementation of CITES in Nigeria.

One of the main methods used to gather data was in-person interviews. This method was adopted because it yielded the most reliable data (Wheeler and Morgan, 2023). Two hundred copies of structured questionnaire were randomly and proportionately administered to the identified CSH. The questionnaire was divided into 4 sections namely Demography, Institutional responsibilities, awareness of CITES and Administration/ Compliance/Education.

Statistical analysis

Data collected were subjected to descriptive statistics using Microsoft Excel 2010 and presented in frequencies, percentages and charts. Chi square test was carried out to determine association between categorical variables at $P < 0.05$ significant level.

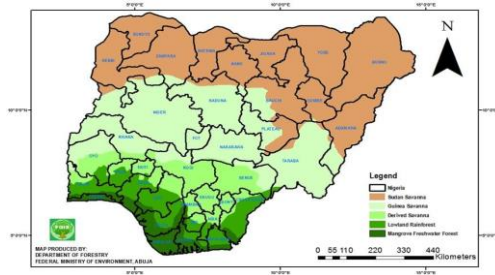


Figure 1: Map showing the Ecological Zones of Nigeria

RESULTS AND DISCUSSION

Socio-demographic characteristics of the CSH investigated showed that there are more males than female amongst the CSH as presented in Table 1. This suggests a gender imbalance among the participants, which could reflect the demographic distribution of the population surveyed or indicate gender-specific interests or involvement in the study, and this supports the findings of Eboiyehi, (2006). The active age group falls between 30 – 39 years, followed by the age group of 40 – 49 years.

This might indicate a mid-career stage for many participants, potentially reflecting their experience and involvement in the respective sectors. It was also found that the majority of the CSH possess tertiary education, with a significant proportion of the CSH, identified through direct person-to-person contact, attaining a tertiary level of education. This might indicate a mid-career stage for many participants, potentially reflecting their experience and involvement in the respective sectors.

Table 1: Socio-demographic Characteristics of Participants

Variable	Frequency	%
Sex:		
Male	131	66.5
Female	66	33.5
Age Group (years)		
≤ 29	30	15.2
30-39	69	35.0
40-49	64	32.5
≥50years	34	17.3
Educational status		
Primary	9	4.6
Secondary	15	7.6
Tertiary	176	66.0
Stakeholders		
Ministry of Environment	48	24.4
Academia	31	15.7
Police	19	9.6
Customs	15	7.6
NESREA	15	7.6
National Parks	5	2.5
Zoological Garden/wildlife	18	9.1
Botanical		
Garden/Horticulture	9	4.6
Post Office	3	1.5
Pharmaceutical/NAFDAC	3	1.5
Airlines	3	1.5
Shipping lines	3	1.5
Politicians	3	1.5
Arts and craft	5	2.5
Hunter	8	4.1
Hospitality	6	3.1
Students	3	1.5

Key: NESREA- National Environmental Standard Regulation and Enforcement Agency; NAFDAC National Agency for Food and Drugs Administration and Control

The diversity of stakeholders indicates a broad range of perspectives and expertise, which is beneficial for comprehensive data collection. The largest representation from the Ministry of Environment (24.4%) highlights its significant

role in the study's context, possibly relating to environmental policies or regulations. Academia's notable representation (15.7%) suggests a focus on research and education within the study.

Table 2: Responses on the Level of Awareness about CITES by CSH

S/No.	Response Variables	% Yes	% No/ Not sure
1	Hearing the word 'CITES' for the first time	48.2	51.8
2	Meaning of the acronym (CITES)	95.1	4.9
3	Awareness of CITES as a signatory to Nigeria	55.3	44.6
4	Knowledge on any organisation in charge of CITES	74.3	35.7
5	Awareness on the location of CITES headquarters/secretariat	58.4	41.6
6	Knowledge on the function (any two) of CITES	47.7	52.3
7	Awareness of act/law governing trade of endangered species	45.7	54.3
8	Awareness of Endangered species Act protecting animals and plants in Nigeria	38.1	61.9
9	Mentioning any three Animals and plants protected by CITES	77.2	22.8
10	Knowledge about CITES as a mechanism for monitoring the species that are traded regularly?	35.5	64.5
11	Awareness about the normal route of obtaining CITES permit?	41.6	58.4
12	Knowledge of any inventory on the species traded	20.8	79.2
13	Awareness about confiscation of any the species protected by Enforcement agencies	29.4	70.6
14	Awareness that illegal traders/smugglers of endangered species can be convicted	50.8	49.2
15	Do you think that the current penalties stated in the ACT are enough for deterrent?	65	35

The results in Table 2 presents the responses on the level of awareness about CITES by CSH in Nigeria. While 51.8% of respondents have heard of CITES, a significant 48.2% remain unaware of it. This indicates a need for increased outreach and education about CITES and its objectives (Richards, 2018). Encouragingly, 95.1% of respondents correctly identified the acronym CITES as the Convention on International Trade in Endangered Species of Wild Fauna and Flora, likely reflecting the high percentage of tertiary-educated individuals among the respondents. However, only 55.3% of respondents are aware that Nigeria is a signatory to CITES, highlighting a gap in knowledge that could impede effective implementation and compliance with CITES regulations. Furthermore, 35.7% of those aware of Nigeria's signatory status could not name at least two organizations responsible for CITES, and 58.4% were unsure or unaware of the location of the CITES Headquarters in Geneva,

Switzerland. This underscores the need for more targeted information dissemination about the organizational structure and key locations related to CITES (Gibbs *et al.*, 2019).

Additionally, 52.3% of stakeholders could not mention any two functions of CITES, pointing to a significant knowledge gap regarding the convention's role and responsibilities. About 54.3% of respondents lacked awareness of the Act/Law prohibiting the trade, illegal possession, and capturing of endangered species in Nigeria. Only 38.1% were aware of the Endangered Species Act protecting animals and plants, with 47.7% unaware and 14.2% not responding. This lack of awareness poses a substantial risk to conservation efforts, as informed stakeholders are crucial for effective policy enforcement and advocacy (Bennett *et al.*, 2017). Moreover, 46.7% of respondents did not know about the listed species of plants and animals protected under CITES in Nigeria, and

49.2% were unaware of CITES' role in monitoring species used in trade. A substantial 58.4% of stakeholders were not familiar with the procedures for obtaining a CITES permit. This knowledge deficit can hinder proper regulatory practices and compliance. The inventory of wildlife resources was last conducted over a decade ago, and 79.2% of respondents were unaware of the available wildlife resources in Nigeria. Additionally, 70.5% had no knowledge of the confiscation of protected species by enforcement agencies. While 50.8% of CSH were aware that illegal traders/smugglers of endangered species could be convicted, 65% believed that the penalties were insufficient to

serve as a deterrent. This suggests a perceived weakness in the enforcement and punitive measures related to wildlife crimes (Johnson, 2020).

The findings also highlight challenges faced by CSH, including a lack of synergy among organizations involved in CITES and wildlife management in Nigeria. Many organizations lack the necessary collaboration to effectively manage wildlife resources. Furthermore, the personnel involved in wildlife management often lack adequate training and capacity to handle their responsibilities effectively (Thompson *et. al.*, 2018; Wicander and Coad, 2018).

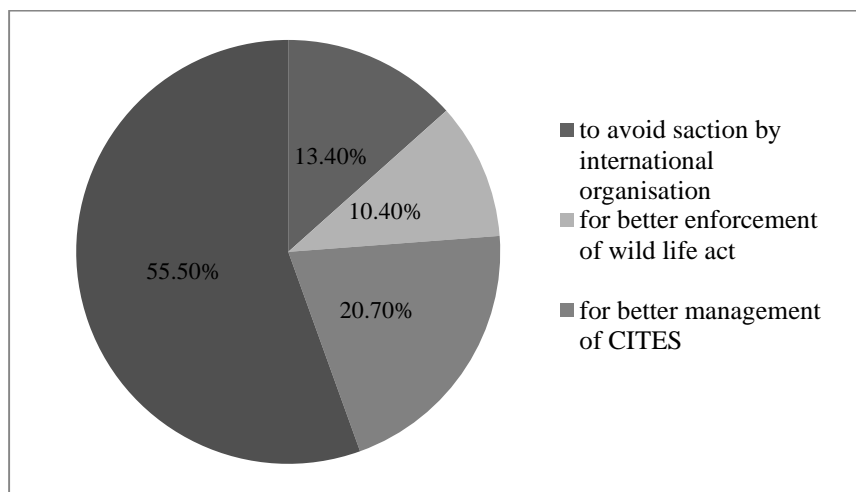


Figure 2: Stakeholders Opinion about the Need for CITES in Nigeria

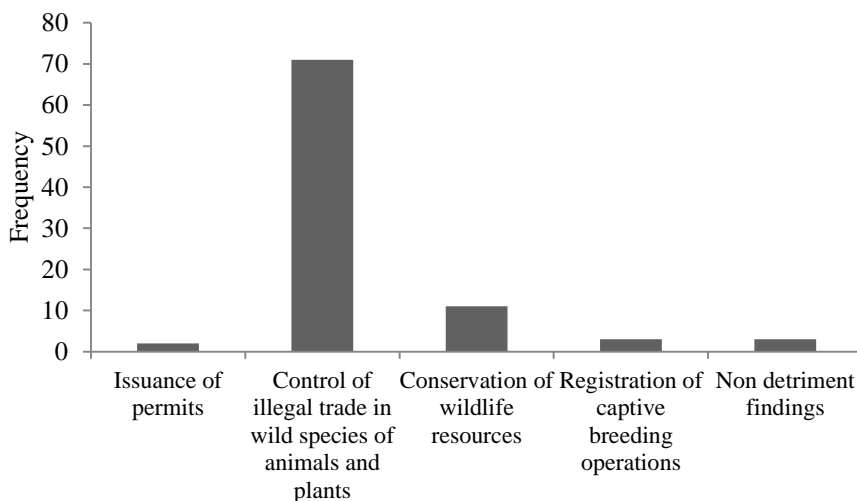


Figure 3: Stakeholders Opinion about the function of CITES

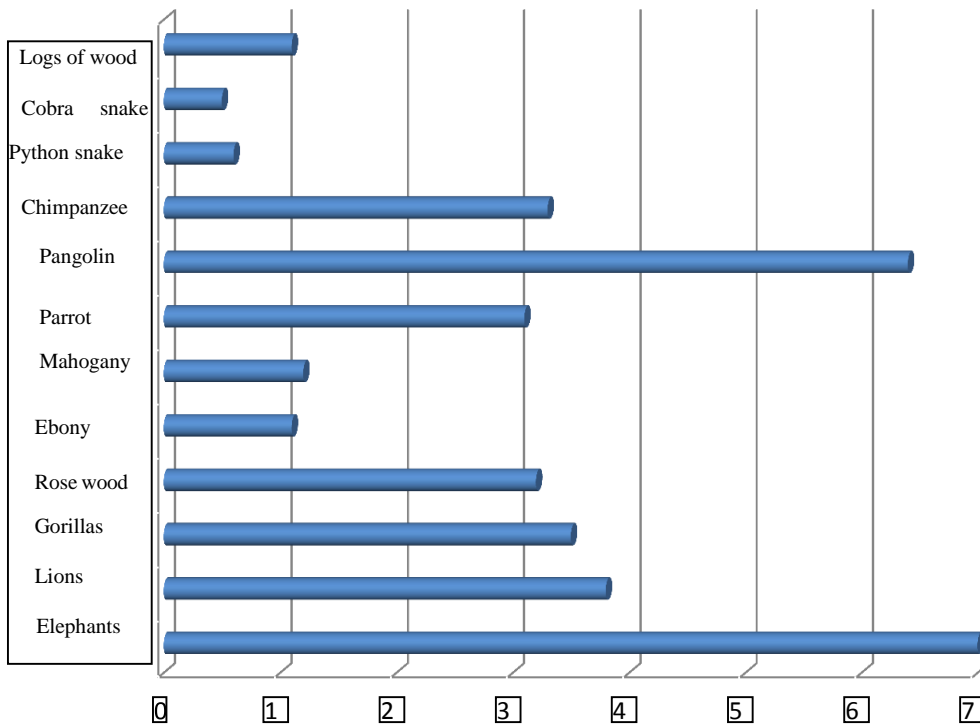


Figure 4: List of endangered plants/animals mentioned by Stakeholders

The illegal and unsustainable wildlife trade is a major and growing threat to biodiversity estimated to worth \$ 8-10 billion (excluding fish and timber), making it one of the highest valued illicit trade sectors in the world (Milner-Gulland and Wright, 2017). This is recognised by many governments, researchers and practitioners (Rosen and Smith, 2019; Symes *et al.*, 2018).

The information above shows sub-optimal knowledge about CITES by critical stakeholders CSH. If these (CSH) are well informed on their roles in protecting the Biodiversity and are made to see them as their own particularly the role that Indigenous People and Local Communities have in overseeing natural areas and being on the lookout for criminal activity, and the need to make conserving nature more rewarding to them than colluding in illicitly exploiting will go a long way in managing the Biodiversity (Bennett, *et al.*, 2017). Even the most focused and well-resourced enforcement efforts will struggle to effectively contain wildlife crime without the assistance of CSH, such as local communities. Most CSH show signs of trouble, especially those that participate actively in CITES. Public participation has existed in the histories, politics and practices of European planning processes for a very long time. However, it was only during the 20th century that it has become a

more prominent feature, and in many countries it has really emerged only over the past few decades (Patel and Stel, 2004). There is a wealth of literature and guidelines on participatory methodologies, which have contributed to significant recognition of such methodologies within different arenas of decision-making and research. Nevertheless, the field of public participation remains a fairly informal platform in the sense that there is no formal body which oversees or regulates participatory processes (Chambers, 2002; Kasemir *et al.*, 2000).

The different opinions by stakeholders on awareness of CITES in Nigeria were presented in the Figure 2. The 55.5% of respondents believe that awareness on CITES should be created in Nigeria based on the fact that wildlife can be lost if not properly protected, while only 10.4% have the fear of receiving sanctions from International organizations as it was recently done on suspension of trade on *Pterocarpus erinaceous* from West African countries to China and Hong Kong (Forest Trend, 2020). Others stakeholders mention that it is needed in order to avoid sanction by international organization (13.4%) and for better management of CITES (20.7).

Figure 3 indicated knowledge of the functions of CITES by stakeholders in Nigeria, 71% believe that the function not be more than controlling illegal wildlife trade and do not believe or know any other functions enumerated are also statutory functions of CITES in Nigeria. The Figure 4 showed the list of endangered plants and animals mentioned by the stakeholders. The scores for elephants and pangolins were high this could be as result of recent seizures of several tonnes of ivory and pangolin scales made by Hong Kong Government where the press made a wide publication.

From this findings, it can be deduced that mutually supportive relationships between all critical stakeholders in the implementation of CITES in Nigeria are very critical to the long-term success of conservation efforts and to curb illegal trade in Wildlife. The prevalent negative attitudes towards conservation of wildlife resources in Nigeria exhibited by rural and other critical stakeholders particularly urban populace could be as a result of abject poverty. This is in line with the findings of Thompson and Mintzes (2002) whom reported that individuals with more complex knowledge structures about environmental issues are more likely to hold scientifically accurate and conservation-friendly attitudes. In most cases subsistence practices are made where they collect their daily needs such as food, fuel, building materials, medicine and the like freely from the immediate environment (Robinson and Berkes, 2019). The more knowledge an individual has the more the individual will have the proper attitude towards protection of Endangered Species (ES) which accords with Thompson, (2002).

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CONCLUSION

The level of awareness about CITES and wildlife management among stakeholders in Nigeria is currently insufficient. The findings indicate that many stakeholders lack fundamental knowledge of CITES, and there are poor synergies and communication gaps among them. This lack of awareness and coordination contributes to ineffective wildlife conservation efforts. Enhancing stakeholder awareness and understanding is crucial for improving conservation practices.

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