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ABSTRACT
The conservation of wildlife is often dependent on those saddled with such responsibilities and to some extent those living in close to the animals. This study was therefore undertaken in the wildlife park of the University of Agriculture, Makurdi, to identify the socio-economic characteristics of the support zone dwellers, examine their awareness and perception of the park and determine the factors that will elicit the support of the local dwellers. Structured questionnaires and interviews were used to obtain information from five communities surrounding the park. The questionnaires were administered by the simple random method to all those (males and females) that were 18 years and above in each community. A total 500 of questionnaires were administered. The results obtained showed that there were more males (68.4%) than females (31.6%) among the respondents, while Christians (73.6%) dominate the other religious groups. The age class of the respondents ranged from 18-50 years while majorities (81.2%) of them were married. Only 9.2% of the respondents had tertiary education, with only 9.6% working as civil servants. The rest (90.4%) were farmers, hunters, traders, cattle rearers or fisher. About 66.4% were aware of the existence of the park while 66.8% had knowledge of why the park was created. 47.2% were aware of the law governing the park. The awareness level about the part was found to be significantly {P>0.05} higher than unawareness level. About 55.6% indicated that the park is a good project while the factors expected to elicit the local people's support included the provision of clinics, electricity, schools, pipe borne water and employment.

INTRODUCTION

Wildlife Park (WP) is prominent among the methods for in-situ conservation of biodiversity. They are the most feasible methods to manage and conserve fauna species (Thomas and Middleton, 2003; Chap *et al*., 2005). The establishment of many national parks, game reserves, zoological gardens, sanctuaries and natural history museums backed up by the promulgation of wildlife laws, decrees and edicts are clear indication to conserve and manage wildlife resources. Following the drafting of the

Organization of African unity Convention on wildlife conservation in 1979, known as "International Treaty Year" Nigeria become a member signatory to the Treaty. The immediate result was the setting up of the Nigerian National Wildlife Development Committee (NNWDC) charged with the responsibility of providing policy for implementation of the agreement of the Organization of African Unity (O.A.U) convention (Natural Resources Convention Council – NARESCON, 1992).

Sequel to NNWDC recommendations, the University of Agriculture Makurdi, in 1998 established a wildlife park. The change in the status of the area marked the beginning of conflict of the wildlife park. This is because the new Law regulating the management of the wildlife park extinguished the right of the surrounding communities to exploit some resources of the park for the domestic requirement. This was contrary to what was obtained when the area was managed as a forest reserve under which large mammals were frequently killed. Hence, the conflicts which reflected the peoples sharp reaction against the discriminatory government policies on their own land. Abubakar (1993) observed that the degree of reaction of the surrounding communities against a wildlife park depends on the extent to which they benefit from the park. The creation of the park has impinged upon their means of livelihood, and their perceptions of the benefit they stand to drive from the existence of the park have not been made known to them. This situation influences the extent of illegal activities within the park.

The proximate cause of biodiversity loss is biological, but the root causes of the problem include sociological and economic processes that operate on a global scale. The ultimate cause of most of the loss of biodiversity is the exponential expansion of human populations and its resultant effects (Geist and Lambin, 2002; Kideghesho *et. al.*, 2007 and 2013). The dirsect destruction, conversion, or degradation of ecosystem result in the loss of entire assemblages of species. Over exploitation, habitat disturbance through anthropogenic activities accelerate the loss of individual species within ecosystems. More so, exploitation, chemical toxins, or regional climate change may eliminate some genetically distinct parts of the population. As genetic variability is lost, the species as a whole becomes more vulnerable to other factors more susceptible to problems of inbreeding, and less adaptable to environmental changes.

The most important single factor affecting the fate of biodiversity on earth is the accelerated rate of habitat destruction particularly in the tropical forests (Kideghesho et. al. 2013; Pervez et al. 2015). Habitats are reduced because of demographic, economic, socio-political, agricultural, scientific and technological demands and or cultural uses. Similarly, when portion of the forest is destroyed and the land is converted to intensified use, most of the species lost or face greater danger of extinction as their populations are reduced in number.

METHODOLGY

The study area

University of Agriculture Makurdi Wildlife Park (UAWP), in Makurdi lies within the Southern Guinea Savannah Zone between latitude 07^0 49' N and 07^0 52' N and longitude 08^0 40' E and 08^0 38' E (Keay, 1959). It is located at the North Eastern part of the University. It is about 1.5km on the way to Gbajimba Local Government and shares a common boundary with five villages namely: Tse Dei, Anyam, Vambe, Tse Yauu and Tyodugh. The park covers an area of about $24.2km^{2.}$ The terrain of the area is basically an undulating plain. Its relief ranges from 83m to 167m above mean sea level. The drainage system in the park comprises of several streams having water only during raining seasons. These major streams, which are tributaries of River Benue, include Baa and Najime streams. The climate of the area is tropical climate with a clear distinct dry and wet season. This climate is

characterized by South Western winds coming to the land off the Coast of Guinea. This is the rain bearing winds of region. The harmattan wind prevails during the season from November to March. Rainfall in the wet season (April to October) is about 1.240mm – 1.440mm. Dry season last from November to March. The monthly temperature is about (28.5oC – 36^{o}C) it may rise to 38^{o}C in March to April. Three types of soils are found in the study area namely; alluvial, clay, loam, and sandy soil. As for geological setting, the study area is under lined by legume shale and Makurdi sand stone. The vegetation of the area is the Guinea Savannah (Tyowua *et al.,* 2013). This characterized by the growth of shoots, grass and thorns which grew height of 1.5 to 3.0 meters rapidly during raining season. The vegetation has been described as open woodland with trees having broad leaves. The riparian vegetation occurs in areas that are frequently flooded during rains. Areas previously cultivated referred to as grassland vegetation have the emergent of trees. The wildlife park contains most of the animals' species of typical western Guinea Savannah Zone. The area has subjected to intense hunting pressure for a long time and animals are less frequently seen during the day time, but their foot prints and droppings can be seen. Some of the animals and avifauna that roamed the study area and to some extent be seen include; Grimm's duiker - *Sylvicapra grimmia,* Red-flanked duiker - *Cephalophus rufilatus* Warthog - *Phaccorus aethipicus,* Grass cuter - *Thryonomys swinderianus,* Giant ponchal rat -*Cricetonuys gambionus,* Monitor lizard - *Varanus nitolticus,* Guinea fowl - *Numida meleagris and* Bush fowl - *Francolinus albogulanis* (Ityavyar et al., 2018).

Data Sampling Procedure and Collection

Social Survey**:** Social survey was used for data collection through the administration of structured questionnaires and scheduled interview with the residents. The simple random sampling method was used in administering the questionnaires to the respondents who have attained the age of 18 years and above (without discrimination to sex) in each of the five communities surrounding the park. Questionnaires were administered in each of the communities proportional to the population of each of the communities. The procedure adopted was as follows: A total of 500 survey were administered in all the communities. The number administered in each community was based on the population using Emaikwu, (2011) proportional allocation technique. The product is stated as follows.

$$nh = \frac{Nh \times n}{N}$$

Where;

h = Estimated population of the people in the community

n = Number of questionnaire administered

N = Estimated total number of people in all the communities

$$nh = \frac{\text{Population of the Community} \times 500}{\text{Estimated total number of population in all the communities}}$$

Data Analysis

Descriptive Statistics was used in the analysis of social survey data based on Wahua (1999) principles. Chi – square analysis was used to test if significant difference existed between levels of awareness and unawareness of the following;

a) The existence of the park
b) Why the park was created
c) The laws governing the park

RESULTS AND DISCUSSION

Demographic characteristics of the respondents

The result of the study in Table 1 showed the demographic characteristics of the respondent in the study area. It indicates that majority of the respondents 342 (68.4%) were males while many 158 (31.6%) were females. This was due to the culture of the respondents which allows males to respond to issues first and due to the shyness exhibited by females towards answering the interview questions and the questionnaires. This confirms to the reports of Ogunjinmi *et al*., (2008). However, conscious effort was made to ensure that adequate number of females was reached in order to combine their opinion on the study. The religious status of the respondents revealed that, majority 366 (73.2%) were Christians, 42 (8.4%) were Muslims, while 92 (18.4%) were practicing traditional religion. This was so because the settlers are predominately from a Christian background. Age distribution of respondent, majority of them 170 (34.8%) were between 31- 40years, many 160 (31.0%) were between 41- 50 years, 120 (24.2%), were between 18-30years and 50 (10.0%) were above 50years. This is very active segment of the population. Due to the absent of industries in the study area, this group are more negatively affected and in turn affect the resources of the park adversity. This age group is similar to that observed by Ajayi *et al*. (2012). The result also showed that, married people 232 (46.4%) dominated the area, of which (12.8%) were divorced and 10.0% separated respectively. This is indicative of possible pressure or resources of the park and the available land belonging to those communities, since they will all depend on the farm and park resources for sustenance. This agrees with Ijeomah and Akosim (2000) observation on the relationship, between population growth and resource conservation. In this study the educational level of the respondents seemed to be low with 9.2%, this is also an advantage to the acquisition of knowledge and participation in biodiversity matters. This agrees with the research by Gideon (2015), that formal education promotes awareness and participation level of individuals and communities on a particular concept. In all the communities visited, the educational institution seen was primary schools, and in some, there were even none. There is, therefore no doubt why the majority of the respondents were mostly primary school leavers. In these five communities' only one secondary school was seen, members of the communities have to travel long distances to get to school. Farming (45.6%) was their major occupation, while other were involved in hunting (18.4%), trading (17.6%), civil service (9.6%), livestock rearing (6.8%) and fishing (2.0%). This is alarming and therefore calls for urgent intervention of the park management.

Respondents Awareness and Reasons for the existence of the Park and its laws

Table 2, 3 and 4 revealed the respondents level of awareness and reasons for the establishment of the park and its laws. A total of 332 (66.4%) respondents were aware of the existence of the park, while 168 (33.6%) respondents were not aware of its existence. A total of 334 (66.8%) respondents know while the park was created, while 166 (33.2%) respondents do not have knowledge of why the park was created. Majority of the respondents 236 (47.2%) were aware of the laws governing the park, while 264 (52.8%) were not aware of the laws. More so, most respondents 206 (41.2%) indicates that biodiversity conservation was the major reason for the park creation, followed by education 166 (33.2%) and research 82(16.4%), while tourism 46 (9.2%) was the least (Table 3). Table 4 indicated the laws governing the park as stated by the respondents. These include no hunting 204 (40.8%) rank first, followed by no logging 102 (20.4%), no farming activities 98 (19.6%) and lastly no bush burning 96 (19.2%). The awareness level expressed by the respondents about the existence of the park, its creation and the laws governing the park indicates that the park management has not done very

well in educating the entire communities neighbouring the park on the objectives of the park. It is therefore necessary for keeping the communities more abreast about the park through its conservation education enlightenment programmes. This will continue to create more awareness and understanding between the park management and the communities as observed by Tosanioumi, (1995).

Table 1: Socio-economic characteristic of the respondents

Variables	Frequency	Percentages (%)
Sex		
Male	348	68.40
Female	152	31.60
Total	**500**	**100**
Religion		
Christianity	366	73.60
Traditional	92	18.40
Islam	42	8.00
Total	**500**	**100**
Age (years)		
18 - 30	120	23.60
31 – 40	170	34.80
41 – 50	60	31.60
51 and above	50	10.00
Total	**500**	**100**
Marital status		
Married	232	46.40
Single	94	18.80
Separated	60	12.00
Divorced	64	12.80
Window(er)	50	
Total	**500**	**100**
Educational status		
No formal education	198	38.80
Primary education	188	37.6
Post primary education	72	
Tertiary education	46	
Total	**500**	**100**
Occupation		
Farming	228	45.60
Hunting	92	18.40
Trading	88	17.60
Civil servant	48	9.60
Livestock rearing	34	6.80
Fishing	10	2.00
Total	**500**	**100**

Source: Field survey, 2017

Despite the feeling of the respondents that the park has taken all their land more than half (55.6%) still believe that the park project is a good development to them. This attitude is based on the anticipation that things could change and that they will likely benefit in the near future. These same findings were made by Bukie *et al*., (2018) in Afi Mountain Wildlife sanctuary, Nigeria and Alexander (2000) in Belize. This therefore raises the hope for sustainable conservation in the study area. The illegal activities in the park are an indication that the parks do not adequately take care of their needs.

Table 2: Respondent's awareness of the existence of the University of Agriculture Wildlife Park

Variables	Frequency	Percentages (%)
Knowledge on park existence		
Aware	332	66.40
Not aware	168	33.60
Total	**500**	**100**
Knowledge on park created		
Aware	366	66.80
Not aware	92	33.20
Total	**500**	**100**
Knowledge on park created		
Aware	120	47.20
Not aware	170	52.80
Total	**500**	**100**

Source*:* Field survey, 2017

Table 3: Reasons for the creation of the park

Reasons	Frequency	Percentages (%)
Biodiversity conservation	206	41.20
Education	166	33.20
Research	82	16.40
Tourism	**46**	**9.20**
Total	**500**	**100**

Source*:* Field survey, 2017

Table 4: Laws governing the park

Laws	Frequency	Percentages (%)
No hunting	204	40.80
No logging	102	20.40
No farming	98	19.60
No bush burning	**96**	19.20
Total	**500**	**100**

Source*:* Field survey, 2017

Factors that will elicit respondents support of the park

The result in table 5 shows the respondents factors that will elicit their support to the park project as follows. Provision of social amenities (water, clinic, electricity, Road) 180 (36.0%), provision of employment opportunities 160 (32.0%), provision of education 148 (29.6%), integration of respondents into park management 12 (2.4%). Figure 1 indicates the perception of the respondents

about the park. About 278 (55.6%) respondents are in support of the project and are of the view that it is a good project. However, 222 (44.4%) respondents are not in support of the project. According to responses of the local communities, the above factors would improve on their living standard and generate supports of the members of the local communities towards the park. This is because the provision of these social and economic facilities will boast their income; make them economically self-reliant among other attendant benefits. The ultimate result is that the desire to trespass into the park will no longer exist; hence the harmonious coexistence of the park and the neighbouring communities would have been achieved.

Table 5: Respondents factors that will elicit their support to the park

Factors	Frequency	Percentages (%)
Social amenities (water, electricity, clinics and road)	180	36.00
Employment	160	32.00
Education	148	29.60
Integration of community people to park management	12	2.40
Total	**500**	**100**

Source: Field survey, 2017

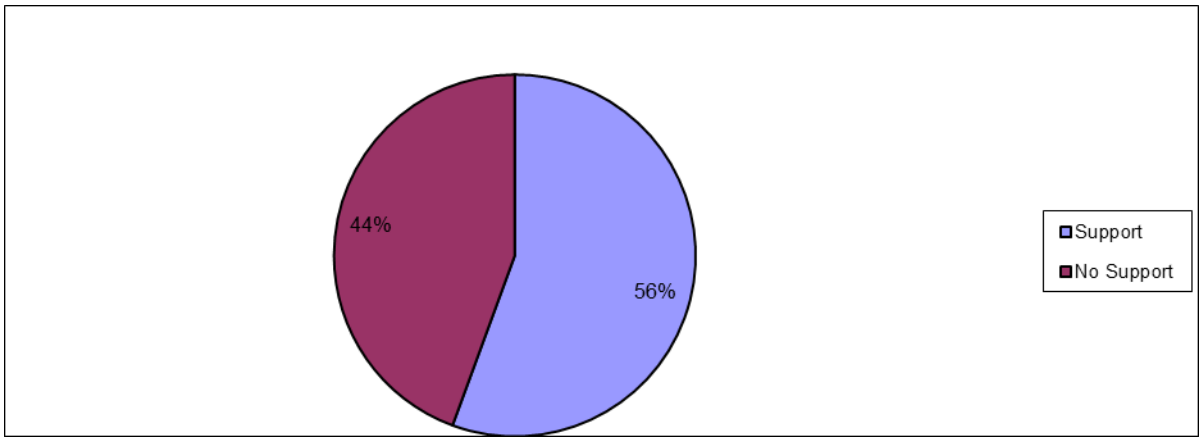

Figure 1. Respondent's perception of the existence of the park.

CONCLUSION AND RECOMMENDATIONS

For long time survival of wildlife resources, it can only be achieved by adequately involving the residents of the neighbouring communities in the management of park resources. This is true because they are the cardinal factors towards its success or failure.

More also, the result has indicated the local residents aware of the park existence, why it was created and the laws governing it to be very high. The opinion and attitude of majority of the residents about the park were found to be negative and positive. The park management should step up conservation education programmes as well as reduce the adverse effect of the park on the neighbouring communities. This will create more support from the residents and encourage better understanding between the park and the neighbouring communities.

There is need for provision of more alternative means of livelihood and social amenities currently

lacking in the neighbouring communities. These, if provided would further reduce the negative tendencies of residents towards the park resources.

Based on the finding of this study the following recommendations are made;

The park management should increase its effort in conservation education and enlightenment campaign to make all residents in the neighbouring communities aware of the park existence, why it was created and the laws governing it. Despite the park achievement in the area of employment, more effort should be ensured that local residents are involve in the park management through appointment of liaison officers, informants casual labourers and committees from the local residents and formation of youth clubs in the neighbouring communities. Effort should be made by the park to extend their project so that all would be beneficiaries of the project. They should also provide infrastructural facilities to park neighbouring district. This is because all communities are demanding for several amenities like, health facilities, water, roads and education. Residents should be educated on alternative means of livelihood such as relevant and modern agricultural practice that can give high yield within the available land at the same time the method should be ecologically friendly. The residents should also be trained on skill acquisition in trade and tourism related occupations such as craft making and tailoring.

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