CONSERVATION STRATEGIES OF WILDLIFE RESOURCES IN THE OLD OYO NATIONAL PARK, NIGERIA.

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ABSTRACT

Wildlife and plants are major part of nature which goes to a large extent in providing means of livelihood for varying categories of people in the world. Human beings are however engaged in over exploitation of this segment of the ecosystem, so much that many species are becoming endangered. It is against this background that this study evaluates the conservation strategies of wildlife resources in Nigerian national parks with particular reference to the old Oyo National Park. Data used for the study were primary data obtained through random sampling of 60 respondents in Ikoyi-Ile, an adjoining settlement, richer in the fauna population of the park. Data collected were analyzed using descriptive statistic and chi square statistics. The result shows considerable degree of effectiveness of the strategies employed by the authority of the park, as majority of the respondents are aware of the status of the park as a protected area. The paper therefore concludes by emphasizing the need to brace up in the various conservation programmes of the park.

Key Words: Wildlife, ecosystem, conservation, plants, Park, strategies, resources,

1.0 INTRODUCTION

Africa is unique among continents in her richness and variety of wildlife (Adewoye, 2007). Before civilization in Africa, a natural but delicate balance had been attained in the animal kingdom between herbivores and carnivores. As time went on the balance was upset by man's increasing need for food and land for development. This led to wholesale slaughtering of animals thereby leading to the extinction of certain species. The extermination of these animals was fuelled by the invention of sophisticated weapons that are capable of killing thousands at a shot. The unique Dodo bird of Mauritius was exterminated in the early eighteenth century, the last Quagga; a zebra-like animal which once roamed the veldt of South Africa in thousands was killed on the 18th August 1883. The white Rhine was eliminated in central Africa in the same century. (Hulme, et al, 2001)

Many of the larger mammals and species of birds had also been decimated in areas where vegetation has been subjected to destruction as a result of excessive cultivation and expansion of urban settlements. These threats become more paramount as a result of intensive technologies such as irrigation, inorganic fertilizer, chemical sprays among others, which are now used to stimulate food production. These human activities have resulted in a number of dangers to the wildlife in their natural habitats.

Since the turn of this century, there have been increasing efforts at encouraging conservation and preservation of wildlife as reflected in the number of organizations involved in the activities throughout the world. Majority of these are financed by private organizations.

Wildlife conservation therefore includes all human efforts directed at preserving wild animals and their habitat to save them from extinction. This is sequel to the significant roles which animals have played in the life and development of man. According to Onyeanusi, (2004) wildlife may generally be utilized in two principal ways: consumptive and non-consumptive. While, the former has to do with direct consumption of various species of wild animals as food in form of bush meat, the latter involves viewing the beauty of wild animals in their habitats. Because it does not involve killing of the animals, it is referred to as non-consumptive utilization. For instance, several species of animal have been used for purposes ranging from traction, sources of clothing, and adornment and furnishing materials, to predator control, religious practices, research and medicine. On sports and pleasures, man derives pleasure and entertainment from animals. In 2001, Nigerian National Parks generated N30.276 million through ecotourism activities. (Nigerian Tribune, 2002).

Wildlife's contributions also include stabilizing hydrological systems; protecting soil; ensuring climate stability; conservation of renewable resources; protecting genetic resources; preserving breeding stocks; population reservoirs and biological diversity; maintaining the natural balance of the environment; supporting tourism and recreation; creating employment opportunities and providing facilities for research and education (Adewoye, 2007). However, despite all these numerous benefits, man's inhumanity to animals remains strong and unabated, so much that if not controlled, the survival of man itself is greatly endangered. Though, some species are being killed by natural factors, the greatest danger to wildlife results from human activities. Large scale poaching, nomadic livestock grazing, indiscriminate bush burning, illegal fishing and other human activities are capable of degrading and destroying the existing wildlife habitat. Realizing these threats, and their effects on the ecosystem generally, and the wildlife in particular, the federal government of Nigeria has set aside some areas designated as forest reserves, game reserves and game sanctuaries with the sole aim of preventing wildlife from total destruction.

There are currently eight national parks and over fifteen certified game reserves located in different ecological zones of Nigeria. The national parks are gazette at different time by the Nigeria National Park Decree. The Old Oyo National Park which is the focus of this study was created by decree No. 36 of 1991. Since its creation, the workers that manage the park have been able to put in place various management measures to protect both the flora and the fauna species. The park has largely contributed to the Gross Domestic Product (GDP) of the country through ecotourism.

The study therefore aims at assessing conservation strategies of wildlife in old Oyo National Park. This is with a view to ensure its sustenance towards a brighter future ecotourism in area.

The specific objectives of the study are to:

i.   Review some related previous studies on wildlife resources conservation
ii.   Examine the socio-economic characteristics of residents in the study area
iii.   Identify the various wildlife for conservation at the national park
iv.   Assess people awareness to wildlife conservation in the study area
v.   Appraise respondents conservation methods and strategies of wildlife in the study area
vi.   Suggest possible measures towards wildlife conservation in the old Oyo national park in Nigeria.

2.   REVIEW OF LITERATURE ON WILDLIFE RESOURCES CONSERVATION

Literature is replete with studies on the conservation of wildlife resources all over the continent of Africa. Many of these include works by International and National agencies as well as studies by individuals, non-governmental organizations and religious bodies. The International Union for the Conservations of Nature (IUCN), Conservation International (IU), World Wide Fund for

Nature (WWF), and Wildlife Conservation Society (WCS) all lobby for more protected areas and are provided with more than one billion US dollars per year through public support. (Matt F.A. 2012).   National Parks and Game Reserves as globally popular approaches to protecting biodiversity and supply of ecosystem services (MEA, 2005) World Park Congress in a study also called for improving the knowledge and understanding of the impacts of protected areas on the livelihoods of the rural poor (WPC, 2003). In Central Africa, Government Institutions, Conservation NGOs, bilateral and international agencies have embraced the goal of protecting as much forest area as possible (Weber, et al, 2001). The number of protected areas has grown at an accelerated pace during the last decades, increasing from about 600 established during 1900-50 to no less than 10,000 in 1955 roughly (5% of the earth's surface). In 1997, the number rose to 30,000 and to 102,500 in 2003 (Oliver-smith, 2005). Presently, over $19.6km^2$ -11.5% of the land surface of the earth are protected (WDPA, 2009). The majority are located in developing countries. In Nigeria, the national conservation strategy was adopted as a model for conservation and subsequently followed by the promulgation of the Natural Resources Conservation Council Decree which was later repealed by FEPA amendment, 1992. Sections 2 and 3 of the policy deals with securing development while at the same time sustaining the productivity of the natural vegetation; protecting wildlife; maintaining genetic diversity and avoiding forest and soil destruction. The first protected area in the country- the Kainji Lake National Park was established on 23rd September, 1975, by merging Borgu Game Reserve with the adjacent Zugurma Game Reserve. Presently, Nigeria has a series of protected areas, eight National Parks namely the Chad Basin, Gashaka-Gumti, Cross River, Yankari National Park, Kainji Lake and Old Oyo National Parks (the study area), Kamuku National Park and Okomu National Park (Inahoro, 1991).

According to Martin and Taylor (1983), the total protection of wildlife in the Sebungire region of Zimbabwe requires buffer zones to reduce conflict between man and animals. The effects of infrastructural development, industrial waste disposal and the use of chemicals on wildlife habitat have been pointed out by Afolayan, and Ayeni (1980); Atanda, (1994); mass destruction of ecosystem through man's activities such as deforestation as shown by Biswass et al (1985). Since the 1980s, the roles of communities for biodiversity conservation have been given serious consideration globally (Western,2003). There is a movement toward bottom-up and decentralization approaches. They differ from the "fortress conservation", which is characterized by its top-down and centre-driven strategy (Berkes, 2004; Hulme and Murphree, 2001a; Western and Wright, 1994).

Studies have however revealed that in spite of the high level of commitment by government and Non-governmental Organizations (NGOs) to increase the global number of protected areas, wildlife population keep reducing at an alarming rate. Poaching is still a serious threat to many game species. This is a cruel and wasteful venture capable of depleting the resources God entrusted to man's care for the benefit of the present and future generations. Nigerian Tribune (2000) therefore describe poachers as the number one enemies of the nation who must be destroyed, eliminated and punished accordingly, as they are out of destroying the environment eliminate species of flora and fauna from the face of the earth. The director of Kainji Lake National Park, Alhaji Oladimeji Abdulsalam captures it all in his statement "if you know the degree of the destruction these poachers are capable of carrying out in our forest, then, you will realize that no punishment is too harsh as reward for their sabotage" (Nigerian Tribune, 2000)

Some key aspects of conserving natural resources are causing increasing criticism from social scientists. The international conservation communities has expressed its concern that many of the costs of these protected areas are borne locally particularly by poor communities, while the global benefits accrued (WPC, 2003). This position was again re-echoed by the conservation community during the 2003 World Park Congress. However, while issues pertaining to biodiversity conservation are always given prominence, similar interests are lacking when the

impact or biodiversity conservation on local communities are considered (Amend and Amend, 1995)

The need for conservation

As we advance relentlessly into the technological era, mankind is increasingly losing sight of the finite nature of our resources. In other words, the naturally endowed resources are becoming extinct (World Conservation Strategy, 1980).

Resources are finite; the renewable and non- renewable natural resources are dwindling rapidly under the incredible pressure imposed by human population through their activities. Popoola (1977) asked this question: "why should we conserve"? This particular question brought about the importance of wildlife to man. He went further to give answer in a simple phrase "the need for provision for future." According to Nest, (1991) if people ignore the need for wildlife conservation, the endangered species will become extinct. If this happens, human being is out to lose much of great values that can hardly be replaced.

He therefore identifies the following importance of wildlife resources to Nigerian economy:

1 **Economic value-** Wildlife based tourism brings in foreign exchange into the country. It offers employment and also produces products of inestimable values as hides and skin, fur, pharmaceutical products among others.
2 **Recreational value-** people derive a lot of pleasure from viewing games in their natural habitat.
3 **Educational value-** schools organize excursions to wildlife parks to enable students see some biological phenomena that are unlikely or at least impossible to be demonstrated in conventional school laboratories.
4 **Scientific and research value-** scientist researchers use wildlife in their experiments. For example, newly manufacture drugs are first tested on wildlife such as monkeys whose body mechanisms are similar to that of human beings before being administered on man.
5 **Aesthetic and heritage value-** wild animals add to the natural beauty of the forest and grassland where they are found. They also feature in much traditional folklores teaching values and morals.
6 **Sources of food-** wildlife resources are important source of food. In fact it forms greater parts of locally produced animal protein. Ayeni et al, (1982)
7 **Survival value-** every species of wildlife plays a role in helping and maintaining the balanced ecosystem on the earth. This system must continue to function, if life must continue. Thus, the loss of any species can threaten the survival of all forms of life including human being.

3.   The Study area

The Old Oyo National Park was carved out of the former Upper Ogun river game reserve and the Old Oyo forest reserve established in 1936. The park has a saxophone-like shape and is located approximately in the North of Oyo state of Nigeria. It is bordered in the North by Kwara State, in the South by Ikoyi while in the western part it is bordered by towns such as Igbope and Sepeteri. The Old Oyo National Park lies between latitudes 8˚10′ and 9˚05˙N and between longitudes 3˚35' and 4˚ 20˙E. The park covers a land area of approximately 251,200ha making it the fourth largest park in Nigeria after Gashaka Gumti National Park (673,100ha), Kainji National Park (538,000ha), Cross River National Park (400,000ha).

It is surrounded by ten (10) Local Government Areas in Oyo State namely: Atisbo (Tede) 3.4220E, 8.5420N), Atiba (Oyo) (3.9260E, 7.8400N), Irepo (Kisi) (3.8510E, 9.079N), Oorelope (Igboho) (3.7550 E, 8.8340N), Saki East (Ago-Amodu) (3.6100E, 8.6090N), Iseyin (Iseyin) (3.5760E, 7.9590N), Orire (Ikoyi) (4.1690E, 8.2700N), Itesiwaju (Otu) (3.3970E, 8.2110N), Olorunsogo (Igbeti) (4.1350E, 8.7450N), Saki West (Saki) (3.3860E, 8.6620N)

The Park is about 120km long from the Southwest to the Northeast and about 50km at its width in the South. It is approximately 300km from Lagos, 160km from Ibadan, 60km from Ilorin and 660km from Abuja, the Federal Capital Territory.
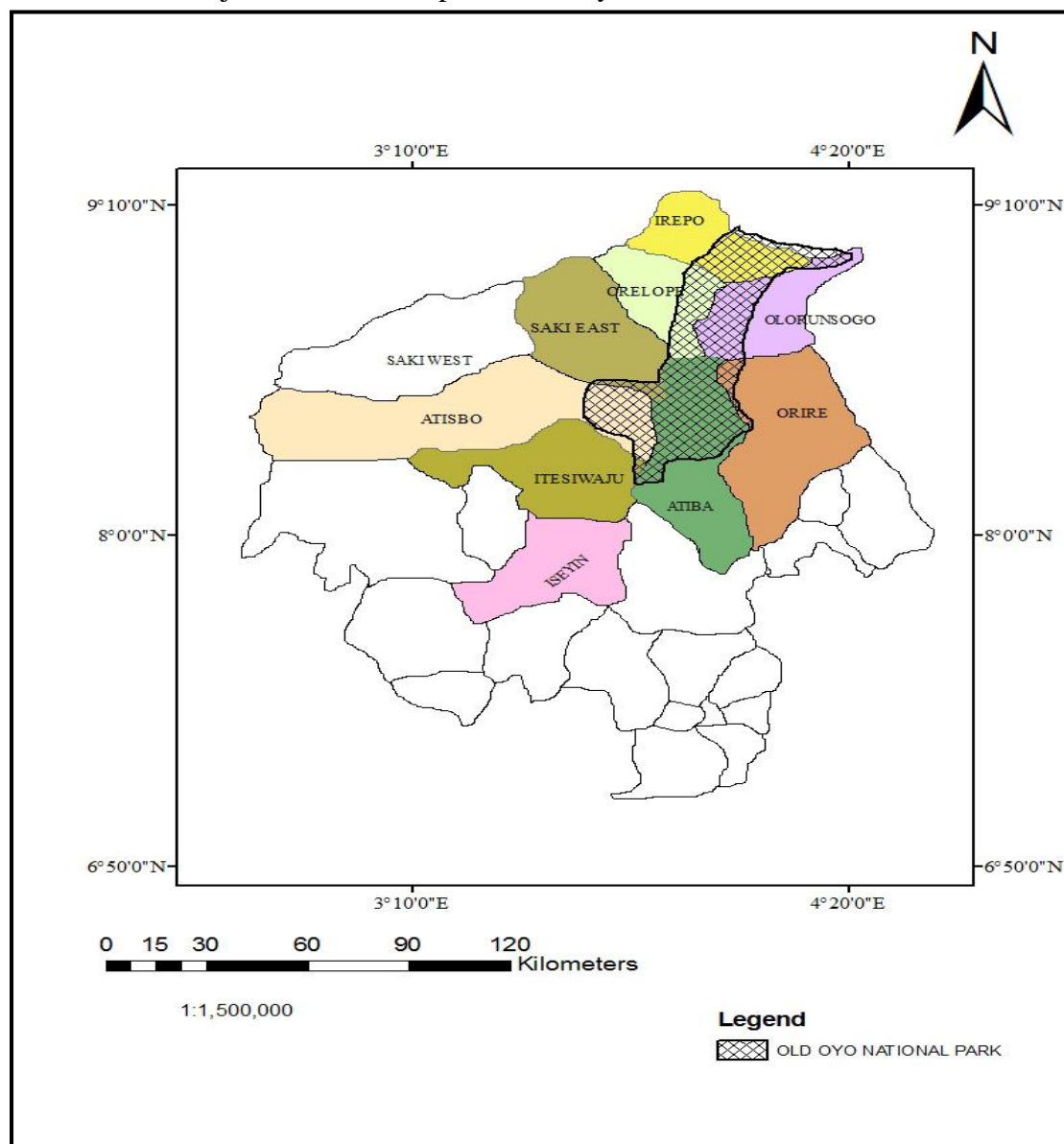
Figure 1. Location of Old Oyo National Park and adjourning communities in the context of Oyo State, Nigeria. (**Source:** *Adapted* **from Olajide, 2009**)

3.1   Flora

 Vegetation of the Old Oyo National Park has been classified as Southern Guinea Savanna. However more intense studies classify the Southern portion of the vegetation as Forest savanna Mosaic with wooded savanna containing relic of Moist Semi decidious forest, grading northwards into drier Mixed Leguminous Wooded Savanna with a continuous lower stratum of perennial grasses. The park is rich in abundant tree species such as the mahoganies, *Nauclea diderrichii (opepe), Terminalia ivorensis (Odigbo), Terminalia superba (Afara), Triplochiton sceleroxylon (Obeche)* and others known in international market.

The vegetation was further analyzed and classified into four broad groups including Dense woodland and Forest outlier in the Southern portion and the North West corner, Mixed open savanna in the middle and North east portions, Outcrop vegetation in the hilly and rocky areas and Riparian grassland and fringing woodland and forest vary along major rivers and streams

dominated. The team of experts working on the management plan of the park described and recognizes four broad eco-zones to include forest and dense savanna mosaic woodland of the park around Sepeteri axis designated as site A, dense and open savanna woodland mosaic in the central portion of the park, Dense savanna woodland, north of Igbeti-Kishi axis zone C and Open savanna woodland, North-east of the park (Oyo-Ile sector)

3.2 Fauna

Animals like Lion, Leopard, Greater bustard, Spotted hyeana, Serval cat, Aadvark, Elephant, Buffalo, Kob, Waterbuck, Reed buck, Oribi, Roan antelope, Hartebeest Bush buck, Spotted hyena, Common warthog, Red river hog, Red flanked duiker, Bush buck, Mongoose, Maxwell's duiker, Patas monkey, Tantallus monkey, Olive baboon, Hunting dog and Mangabey were sighted in the Old Oyo National Park (Afolayan, 1997; Geerling, 1988; Petrides, 1962)

3.3 Watersheds and Drainage Patterns

There are three watersheds in Old Oyo National Park: River Ogun and its numerous tributaries, River Tessi and its tributaries and River Iwa and its tributaries. Ogun River flows southwards to the Atlantic Ocean. Several tributaries notably Oopo, Iwawa, Oowe and Owu flow southwestwards and southeastwards join it before its exit from the park. The Tessi River flows northwards to the River Niger. Three main tributaries including River Soro join it before it exists from the park. The Iwa River flows northeastwards to the River Niger.

4.   MATERIALS AND METHODS

The data used for this study are both primary and secondary data. The primary data include information on the demographic characteristics of the respondents, the major activities of the people in the area, effects of their activities on wildlife resources and suggestions on ways to conserve the resources. The secondary data include map of the study area and its geo referenced location. The primary data were collected using a structured questionnaire administered randomly on the respondents from the five districts into which Ikoyi-Ile is divided, namely Adaduo, Agbakin, Fafunwa, Ofodo and Town Hall. While the secondary sources were review of literature on materials related to wildlife conservation. Data gathered were collated and synthesized using descriptive statistics to explain the level of wild life resources conservation of the study area.

5.   RESEARCH FINDINGS

Table 1. Socio economic characteristics of the respondents

	Districts						
Responses	Adaduo	Agbakin	Fafunwa	Ofodo	Town hall	Total	Percentage
Male	10	9	12	6	11	48	81%
Female	3	2	3	2	2	12	19%
Married	10	9	12	11	9	51	85.6%
Single	2	1	2	2	1	8	10.1%
Others	2	-	-	-	-	-	2.58%
Literate	6	9	8	5	10	38	64.9%
Illiterate	6	2	4	6	4	22	25.1%
Ethnicity							
Yoruba	13	10	12	11	14	60	100%
Hausa	-	-	-	-	-	-	-
Igbo	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-

Source: Researchers' field survey, 2013.

Majority of the respondents were males 48 (81%) and females 12 (19%). Married among them were 51 (85.6%), single 8 (10.1%) while others such as divorced, separated and widow recorded 2, constituting (4.3%). Those that were illiterate were 22 (25.1%) and literate respondents formed (64.9%). All the respondents sampled were Yoruba indigenes with 100%.

 The inference that can be made from this is that majority of the inhabitants of the study area can read and write; they could read meaning to the various inscriptions warning against illegal activities in the park. Moreover, they are enlightened to know the importance of conservation of wildlife resources for sustainability.

Table 2. Respondents' awareness of national park

Responses	Districts					Total	Percentage
	Adaduo	Agbakin	Fafunwa	Ofodo	Town hall		
Yes	13	10	12	9	12	56	93%
No	-	-	-	2	2	4	6.7%
Total	13	10	12	11	14	60	100

 Source: Researchers' field survey 2013.

Table 2 shows the respondents awareness of the park. The study reveals that 93% of the respondents were aware of the park, while 6.7%, constituting only 4 of the 60 respondents recorded no awareness of the park. The result indicates that majority of the respondents in the study area have knowledge of the existence of the national park. This goes on to show that publicity of the park is effective.

Table 3. Mode of getting awareness by the respondents

Mode	Districts					Total	Percentage
	Adaduo	Agbakin	Fafunwa	Ofodo	Town hall		
Enlightenment Campaign	4	3	1	7	1	16	26.7%
Park Officials	2	1	3	-	7	13	21.7%
Bill Boards	2	3	8	1	2	16	26.7%
Community Leaders	5	3	-	3	4	15	25%
Total	13	10	12	11	14	60	100

Source: Researchers' field survey 2013.

As shown in table 2, the same number of respondents i.e. 16 (26.7%) got information regarding the park through enlightenment campaign and bill boards, while 25% of the respondents got theirs through community leaders. The remaining percentages of the respondents 21.7% were aware of the park through park officials. This shows that the park management needs to concentrate more on campaign and erection of more conspicuous bill boards around the park to effectively reach the people. Also, the community leaders and park officials played prominent roles in spreading the gospel of conservation to the public.

Table 4. Noticeability of park boundary.

Responses	Districts					Total	Percentage
	Adaduo	Agbakin	Fafunwa	Ofodo	Town Hall		
Clearly Demarcated	12	4	9	9	13	47	78%
Not clearly Demarcated	1	6	3	2	1	13	22%
Total	13	10	12	11	14	60	100

Researchers' field survey 2013.

The table 3 above indicates that 78% of the respondents reported clear demarcation of the park boundary as against 22% who were of the opinion that the park boundary was not clearly demarcated. This is due to the features used as boundary e.g. rivers and trees.

Table 5. Assessment of Conservation Strategies by the respondents

Option	Districts					Total	Percentage
	Adaduo	Agbakin	Fafunwa	Ofodo	Town hall		
Effective	11	10	11	8	12	52	86.7%
Not effective	2	-	1	3	2	8	13.3%
Total	13	10	12	11	14	60	100

Source: Researchers' field survey 2013.

From the table above, it is observed that 52 respondents (86.7%) supported the option that conservation strategies in the park are effective while the remaining 8 respondents (13.3%) settled for the option that the strategies are not effective. This result indicates that the conservation of wildlife resources in the old Oyo national park is yielding better result, though, much efforts is still required to protect the area against poaching and other illicit activities.

Table 6. Need for conservation of wildlife resources.

Districts	Strongly Agree		Agree		Just Agree		Disagree		Strongly Disagree	
	F	%	F	%	F	%	F	%	F	%
Adaduo	10	16.6	3	5	-	-	-	-	-	-
Agbakin	7	11.6	2	3.3	-	-	1	1.6	-	-
Fafunwa	11	18.3	1	1.6	-	-	-	-	-	-
Ofodo	10	16.6	1	1.6	-	-	-	-	-	-
Town Hall	12	20	2	3.3	-	-	-	-	-	-
Total	50	83.1	9	14.8	-	-	1	1.6	-	-

Source: Researchers' field survey 2013

As indicated in table 5, of all the respondents in the study area, 83% strongly agree that there is need to conserve the wildlife population, while only 14.8% agree to the need and only 1.6% disagrees. This indicates that due to the challenges posed by the activities of the poachers, cattle rearers as well as that of the hunters who clandestinely perpetrate havoc on the wildlife population, the largest proportion of the inhabitants of the area believe there is need to increase efforts in conserving the wildlife resources in the park, in order to stop poachers from further clampdown on the wildlife population.

Table 7. Peoples' awareness and conservation strategies

Strategies	Districts					Total	Percentage
	Adaduo	Agbakin	Fafunwa	Ofodo	Town hall		
Enlightenment Campaign	4	3	1	5	1	14	23.3%
Park Officials	2	2	3	2	5	14	23.3%
Bill boards	2	1	2	1	2	8	13.3%
Community Leaders	3	3	3	2	4	15	25%
Legislation	2	1	3	1	2	9	15%
Total	13	10	12	11	14	60	100

Source: Researchers' field survey 2013.

Table 6 is used to test whether there is relationship between people's awareness and conservation strategies in the old Oyo National Park.

The following hypothesis was used for the study:

Ho: There is no relationship between people's awareness and conservation strategies

H1: There is relationship between people's awareness and conservation strategies.

Decision rule: If x^2c calculated is greater than the x^2t tabulated, null hypothesis is rejected, while alternative hypothesis H1 is accepted, but if otherwise the reverse is the case.

$X^2c = 9.0032$

$X^2t = 26.30$

Since x^2c calculated is less than x^2t tabulated, at the critical limit set at $\alpha = 0.05$, we accept Ho and therefore conclude that there is no significant relationship between people's awareness and conservation strategies. The observe difference in the raw data is not statistically significant and could therefore be attributed to chance fluctuations.

6.   DISCUSSION OF FINDINGS

Old Oyo national park is one of the oldest protected areas in Nigeria. Due to the fact that majority of the people inhabiting around the park boundary are traditional farmers and hunters, there has been great disturbance in the flora and fauna habitat. The drought witnessed in the Northern part of the country around the 70s brought the Fulani and Bororo cattle grazers to the area, and since then, they have been on and off depending on season, relying largely on the flora resources of the park. Apart from destruction caused on the flora habitat, the Fulanis also use weapons such as gun, cutlass and engage in all season- hunting in the park area.

Farmland, timber, bush meats, fuel wood among others are continually on demand due to urbanization and increase in population. These have also resulted in unwholesome effects on the development of the park, as poachers, loggers and animal traffickers are on rampage to tap from the protected resources.

However, despite all these challenges, there are measures as indicated from the study put in place to fight trespassers headlong. Majority of the respondents are aware of the protection of the park, though, through different means. There are several enlightenment and awareness programmes by the management of the Old Oyo national park. The community leaders play significant roles in educating their subjects on the need for conserving wildlife resources in the park. Also, park officials are employed to carry out routine checks in and around the park area to ensure trespassers are hindered from their notorious activities. Similarly, the boundaries of the park are conspicuously marked, bill boards with inscriptions such as: no hunting, no farming, no grazing among others are erected at strategic places, warning people of the dangers and consequences of those activities within the park area. There are also legislative sanctions against trespassers, as arrests made are made to face the wrath of the law.

7. POLICY RECOMMENDATIONS

The best way to protect genetic resources is to maintain their natural habitat, as this will result in substantial degree of conservation. However, there has been serious conflict in the circle of conservationists and researchers as to how to maintain a balance between conservation of protected area and poverty especially of the inhabitants of the area whose major livelihoods depend on these resources (Gilmour, 1994). In the light of this, the following are suggested as recommendations for policy makers and stakeholders in wildlife conservation in the Old Oyo National Park, Nigeria in particular and the world at large.

a.   Promotion of Wildlife farming -People should be enlightened and encouraged to engage in wildlife farming to reduce dependence on wildlife products. The varying demands for wildlife resources are too important to forego e.g. bush meat (source of food and protein), source of medicine, and research and educational values among others. Since it is the culture of our

people to feed on these wild games, government should promote the rearing of animal like grass cutters, giant rats, rabbit among others.

b. Establishment of income generating projects for the inhabitants of the surrounding protected areas. Most of the factors leading to encroachment of the protected areas are not unconnected with economic reasons. The economically impoverished communities cannot be expected to be interested in conservation while their basic subsistence needs have not been met. Hence, efforts should be made to improve their socio economic well being in order for them to be comfortable to be interested in resources conservation.

c. The development needs of the local community should be met from alternative sources; when there are alternative sources of income on which people can sufficiently depend, then, there may likely be no need to tap illegally from the conserved resources, and this will lessen their impacts on the resources to be conserved.

d. The indigenes of the areas surrounding the park should be involved in the planning and management of resources and should also be made to benefit therefrom. This can be achieved through employing the indigenes as guards and training them as conservation agents.

e. Adequate financial assistance from both government and non- governmental organizations should be forthcoming for conservation programmes. Part of this can be utilized to empower the inhabitants of the area, so as to reduce pressure on the forest resources

f. Formation of conservation clubs and organizations at both local and national levels. E.g. young conservation clubs in schools, public and private institutions to promote awareness on importance of conserving natural resources.

g. If sustainable development, as globally preached must be achieved, then it is imperative that world bodies and national governments entrench in the constitution effective animal rights. This will further protect and ensure continuity of species facing extinction.

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