

ISSUES, CHALLENGES AND STRATEGIES OF WILDLIFE CONSERVATION IN NIGERIA

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Abstract: This paper is a review of the state of nature conservation in Nigeria, and the measures adopted for the protection of the wildlife. The major problems bush burning of wildlife habitat, overgrazing of local animals, environment predation, over hunting, poaching and. lack of tourism and accommodation. Steps taken so far to protect wildlife include declaration of priority sector at the national level for which funds should be earmarked, establishment of single agency to deal with all matters covered by the Convention. Certain species have been designated to be totally protected, and others may be hunted or captured only under special authorization, encouraging people to take up afforestation and conservation in new areas. It is suggested that more national parks and conservation areas and existing ones should be maintained. Government should give more room for private sector to establish private conserving centers for sustainability of wildlife. There should be proper planning like the entrenchment of good game management which will sustain the present yields or maintain the intrinsic quality of forests and its resources. The problems and challenges facing the sustainable of wildlife conservation and management in Nigeria could be eradicated if local, state and national bodies join hands together to work as a single body and set up Forest Commission to look into restructuring, reform and strengthening the entire forest set up and affiliated institutions in the country. Promotion and encouragement of research related to conservation, management and the rational use of natural resources particular to ecological and sociological factors should be taken to practice to optimize wildlife activities in Nigeria.

Keywords: Natural Resources, Alien Species, Public Fund and Conflict.

I. INTRODUCTION

Nigeria has forests and woodlands with wide varieties of wide life. The country is home to biodiversity and vegetation in the region range from rainforests to savanna grasslands. Nigeria is bordered by the Sahara desert in the north. The wood lands and forests in Nigeria consist of wide species of mammals, birds and reptiles. There are about 290 species of mammals and 940 species of birds in Nigeria. The regions near Calabar and Cross River state have the world's largest variety of butterflies (Asibey, 2009). Nigeria wildlife is also famous in the southwestern part of the country. The forests in Nigeria are mostly tropical and savanna type. The forests are home to diverse mammals, reptiles and birds. Some species of animals are end endangered and the government and various wildlife agencies are making efforts to conserve them. The first reserves were established in 1900, and at the present time, forest reserves form a considerable part of Nigeria. Many of these are too small to be of much importance for wildlife protection, but some of the larger forest reserves are the main refuges of many species which are very rare or have been exterminated elsewhere. In the forest reserves, the trees and their exploitation are the main consideration, but the absence of hunting and human settlement has had a beneficial effect on the animal populations. However, poaching and the dubious future of forest reserves do not ensure the continued security of the animal populations. (Begon and Harper, 2014). Some important species of wildlife in Nigeria are; Wild cat, Africa lions, Leopards, Banded mongoose ,Common genet, African Givet, Owl, White tailed mongoose, African bush elephant, Pangolins, Bats, Hippopotamus, Antelopes Jackal, Chimpanzee and Camel (Fig. 1), There are also numerous

birds and reptiles which form a major section of Nigeria wildlife. They are found in the rainforests and the grasslands. Some important species of birds in the forests of Nigeria are; Ostrich, Pelicans, Frigate birds, Wood peckers, Horn bills, Owls, Broad bills King fisher, Species, of reptiles in Nigeria are; Lizards, Snakes, Crocodiles. Apart from this animal, there are also plenty of fishes and aquatic animals in the rivers and lakes of Nigeria. Also, Nigeria is reputed to have 22,080 species of animals out of which 274 are mammals the eighth highest in Africa. Of these two species are endemic, the white throated guenon (*Cercopithecus erythrogaster*) and Sclaters guenon, (*Cercopithecus sclateri*), are both endangered (Harper, 1996). Nigeria also ranks eighth in the world for primate diversity, with 23 species and 13 genera. Some typical examples include the drill or forest baboon, (*Papio leucophaeus*) and the chimpanzee, (*Pan troglodytes*) which are both endangered and only surviving populations in Cross River and Gashaka-Gumti National Parks and some left over fragments of forests like Ngelnyaki in Taraba state. The lowland or Cross River gorilla, (*Gorilla gorilla*) is endangered and restricted to three forested sites in its range-Cross River National Park's Okwangwo Division, and Mbe Mountains in Nigeria and Takamanda Forest Reserve in Cameroon. The manatee, (*Trichechus senegalensis*) is almost extinct in Nigeria.

Figure 1a: Owl (*Asio capensis*)Figure 1b: Camel(*Camelous dromedarus*)Figure 1c: Jackal (*Jakka bessie*)Figure 1d: Chimpanzee (*Pan troglodytus*)

The figure above shows typical images of some wildlife animals conserved captured from Nigeria Conservation Foundation April 17, 2013. (Source; UI Zoological Garden.)

II. THE PRINCIPLES OF SUSTAINABLE WILDLIFE MANAGEMENT

Wildlife management is a process that aims to conserve major ecological services and restore natural resources while meeting the social-economic political and cultural needs of current and future generations. Therefore, the issue of sustainable development must be taken seriously in pursuit of ecosystem management). Sustainable development implies development which, while protecting the environment, allows a type and level of economic activity that can be sustained

into the future with minimum damage to people or the ecosystem. Sustainable development advocates leaving to future generations a stock of natural resources no less than that inherited by previous generations. This means preventing irreversible changes to environmental assets which have no substitutes, preventing the loss of the ozone layer and living spaces, and damage to the essential functions of ecosystems such as primary forests and wetlands (Asibey, 2009). It means accounting for services provided by natural environments, which are not for free goods but must be included in costing economic activities. Nigeria identified marine and coastal environment and freshwater resources as one of its most pressing environmental issues as its project under New Partnership for Africa's Development (NEPAD).

Presently, Nigeria is faced with debilitating problems of soil degradation and erosion, rapid deforestation, urban air and water pollution, desertification, oil pollution of water, air and soil especially in the Niger Delta, loss of arable land and rapid urbanization. All these are matters important to the survival of wildlife resources and the development of ecological tourism or ecotourism. These environmental problems portend serious challenges to our nation's sustainable development as signed under the Millennium Summit 2000 and the world Summit on Sustainable Development, Johannesburg 2002. As majority of Nigerians depend on natural resources for food, fibre and medicine, their well-being is directly affected by the deteriorating biodiversity situation in the country (Riney and Hill 2011).

This paper is designed to review the major issues, challenges and strategies relating to wildlife conservation in Nigeria.

III. ISSUES OF WILDLIFE IN NIGERIA

Since the discovery of oil in 1958, Nigeria has been suffering its negative environmental consequences of development. The growth of oil industry combined with a rising population and a lack of environmental regulations, led to substantial damage to Nigeria environment, particularly in the creeks and rivers of the Niger Delta. Soil erosion and desertification are serious environmental issues in Nigeria. One of the most visible problems of oil spills has been the loss of mangrove vegetation, once a source of fuel wood for the people and a habitat for the array of biodiversity. The oil spills also had an adverse effect on marine life, which has become contaminated, in turn having negative consequences for human health from consuming contaminated sea food (Creel, 1999). Nigeria has lost many of its prime ecosystems, habitats and wild genetic resources, and needs substantial rehabilitation and restoration work carried out before it ever achieves its goals of sustainable development in wildlife and other natural resources.

Former Ideas on Conservation

According to Boyle Report, in 2015, the established reserves were ineffective since they included ancient hunting areas and, therefore, the reserves were in fact indiscriminately used for hunting by local people. Since there was no way of enforcing the game laws, the whole idea of conservation was regarded with contempt; yet countries outside Nigeria were under the impression that wildlife conservation was effectively carried out since, to them, the game laws appeared adequate. He considered that a new approach to the problem was necessary. He stated the following observations:

1. Every effort should be made to encourage more interest in conservation among Nigerians, who are in the best position to convey the conservation idea to their fellow countrymen.
2. Conservation should be confined to specific areas only, where there is no clash with hunting and agricultural interests.
3. In each reserve there should be a 'sanctuary' for breeding.
4. Hunting methods should be reviewed, but must not be unduly limiting.
5. All revenue from licenses and other wildlife products should be used for continued wildlife conservation.
6. Special attention should be given to the protection of the chimpanzee, gorilla and several other rare species.
7. Management of wildlife conservation should be handled by a single government department and not, as was then the case, jointly by the Administration, Police and Forestry department.

Petride's report, reviewed all the evidence for the depletion of wildlife. Comparisons with neighbouring countries suggest a considerable reduction in the number of animals in Nigeria. He concluded that the principal cause of the lack of game animals is excessive hunting; this is in contrast to other countries with a similar density of humans as in Nigeria, where it is more the intensive land use that is the important factor affecting the abundance of wildlife (Petride, 2010). Many

hunting methods used in Nigeria were extremely destructive to wildlife populations and there needs to be stricter legislation and enforcement of game laws. The main recommendations of the Petride's report are:

1. Prevent hunting or capture of all species which are threatened with extinction.
2. Strictly limit the hunting or capture of all species whose numbers are reduced, until it is evident that it is in the general interest to permit it.
3. Prohibit those actions which are most detrimental to wildlife e.g. hunting with lights, hunting of species in a designated close season, killing of females and young where the symptoms of sex and age are obvious, the use of traps and snares for hunting and capturing protected species, the burning of vegetation to assist hunting, and the sale of bush meat and other wildlife products, or the transportation of these products across regional and provincial boundaries during close seasons.
4. Establish all forest reserves, game reserves and parks as wildlife sanctuaries where reduction of populations is undertaken only if strictly necessary for conservation purposes.
5. Assign fees from hunting and gun licenses and all other revenue derived from wild animal products for conservation programmes including law enforcement, research, education and the formation of further refuges.

However, the only area functioning then as a game reserve was Yankari in the northern region, although about a further 5,000 square miles (12,950 km²) had been designated elsewhere as reserves. Possible areas suggested by Petrides are in the vicinity of Lake Chad, Jos, Lafia (north of the Benue), Mambilla, Obudu (especially for gorillas and chimpanzees), Cross river, Upper Ogun, and Gilli-Gilli. He also recommended the area at Borgu which has in fact since been constituted as a reserve. The various areas would, according to the report, cover all the types of habitat that ought to be preserved for posterity and as true examples of the ecosystem. In addition to these areas, the report suggested that other suitable ones might be designated as game production areas, where wildlife ranching is supervised by qualified ecologists.

IV. CHALLENGESS OF WILDLIFE CONSERVATION IN NIGERIA

Wildlife management problems in Nigeria are centered principally on the following situations;

Utilization of Wildlife

There is poaching of big game for ivory, rhino horn, leopard skin etc. In West Africa, poaching has always been for meat, with skins and ivory no more than natural by-products of the poacher's activities, yet it is easy enough to protect the really big game if Governments mean to do so. Big game hunting requires effective weapons whose Governments can prohibit. But the lesser game which the West African requires for the bush meat trade can be drastically reduced even by snares. The over-utilization of wild animals as a source of food poses a serious problem in the present state of wildlife conservation in Nigeria as shown in Table 1.

It has been essential to work on the meat production potential of wildlife alongside with the more widely accepted uses of wildlife such as tourism. Many people tend to ignore the fact that the native fauna forms a considerable biomass and is of high economic value as food source. If even a nominal proportion of capital investment and manpower of West African countries were spent on wildlife projects, it would soon be evident that wildlife has a high economic potential (Odum and Barrett, 2005).

Tourism and Accommodation

There has been a general belief that wildlife can never be significant in terms of tourism for Nigeria. This well-known theory has done a lot of harm to wildlife conservation, which will continue as long as the tourist value of wildlife constitutes the dominant justification for the expenditure of public funds and private investment in wildlife conservation. (Sukumar, 2003). It must be stressed that it takes time to increase the numbers of animals where they have been ruthlessly exploited. Nigeria is in no exception to this general rule, and the exploitation of wildlife continues.

Threatened Resource

Unfortunately, the enormous wildlife resources in Nigeria have been allowed to waste by every succeeding government since the mid-1970s, through acts of negligence or omission. A significant proportion of Nigeria's wildlife resources is now either endangered or under threat of extinction. The threat mainly come from loss of natural habitat; loss of species and sub-species; invasion by alien species; over-hunting or harvesting of natural resources and lack of recognition of

indigenous knowledge and property rights. Logging and bush clearing account for considerable loss of biodiversity (Vucetich, 1999).

Poaching

Poaching is another serious impediment to the conservation of wildlife and game management in the country through the use of cruel and wasteful methods by poachers on these animals. Closely related to these factors are the numerous crude acts of professional and freelance hunters whose source of livelihood depends on the tracking down of these game species (Adzoce, 1991). The high demand for venison (bush meat) by many citizens further increases number of hawkers of game operators of roadside and motor park restaurants resulting in reckless and indiscriminate slaughter of game species with impunity. (Packer, 2007)

TABLE 1: Number of animals hunted in 1999 by foreign hunters and trophy fees generated in Eastern and Southern Africa.

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Species	Total	Average Value (US\$)	Total Value (US\$)
Lion	95	1,300	1,235,000
White Rhino	43	25,000	1,075,000
Elephant	20	20,000	400,000
Buffalo	150	4,500	675,000
Leopard	69	3,000	207,000
Big 5 Subtotal	77		3,592,000
All other specific species	21,592		13,477,210
Other Species (71)	2,562		1,291,375
TOTAL	24,526		18,360,585

Average value is based on average price of species when offered for hunting.

Adapted from: C. Hoogkamer, SAPHCOM, in lit to TRAFFIC East/Southern Africa, July 2001

Bush burning

Another contributory factor to habitat and wildlife is incessant bush burning by hunters, game dealers and peasant farmers. In Nigeria, recurrent fire incidents result in destruction of plant species, death of animals and escape of some animals into nearby communities. The sudden relocation of the wildlife community poses threats to life and property, as the inhabitants wantonly kill these strayed or migrated animals on the basis of self-defense. There are instances of death of some villagers nearby Borgu Game Reserve, now Kanji Lake National park in 1963 and 1974. Similarly, in 1981, there was a report of a leopard that escaped from the Yankari Game Reserve into one of the villages, of Gwana district. (Lindsey, 2007).

Environment predation

Environment predation arising from spread of waste and the destruction of nature result in habitat loss, fragmentation of forests, thorn Serb, cone reefs, conversion of rivers inimical effects on the sustenance of wild resources that often lead to extraction of many species of plants and animals. The increasing pressure of population growth and economic development often necessitate modification of land scrape by clearing, draining, mining and other developmental projects like building of cemeteries, irrigation schemes, and construction of roads, location and localization of industries. All these activities bring about changes in the patterns of wildlife as natural habitat of wildlife are being gradually eroded. (Hamilton, 2008).

Overgrazing

Overgrazing in sanctuaries or reserves by the Large numbers of cattle's and other domestic livestock especially in the Northern states of Nigeria coupled with the migratory trends to the southern states of Nigeria for pasturing by the Nomadic cattle rearers adversely deplete grassland and other plants species. The possibility of transferring diseases from

these cattle's to wild animals that lack immunity to the morbidities of domesticated animals/ livestock invariably destroy one of the nation's wildlife creatures (Odum, 2005).

Other challenges facing wildlife and conservation in Nigeria are:

- i. lack of funds to wildlife conservation from Local, State up to the Federal level
- ii. Lack of well-trained wildlife personnel
- iii. Over-hunting of game resources by the hunters and high rate of poaching that is, illegal procurement of protected wildlife such as fish, game and logging activities.

Up to the mid 70s, the Federal and State Governments have made some effort to establish a number of wildlife conservation or protected areas in the country; these include some 31 game reserves, 4 or 5 game sanctuaries and 7 National Parks. The game reserves and sanctuaries, directly owned and managed by the State Governments have specific objectives to protect endangered species, promote sustainable harvest, and promote conservation education and tourism. The National Parks and Strict Nature reserves, developed and managed by the Federal Government under the exclusive legislative list, are to enhance the protection of endangered species, promote scientific research, encourage educational knowledge and promote ecotourism. However, the prevailing reality is that with the exception of the National Parks, most other protected areas exist only on books. The game reserves and the game sanctuaries lack any protection, day to day management or managers and some game reserves exist only on paper. They have been illegally de-reserved and turned into fuel wood exploitation sites, farms or grazing sites for domestic animals.

V. STRATEGIES OF WILDLIFE CONSERVATION IN NIGERIA

Nigeria is obliged to take action to conserve her wildlife. Perhaps the most important clauses relevant to Nigeria are the following:

1. Certain species are to be totally protected, and others may be hunted or captured only under special authorization.
2. There must be promotion and encouragement of research related to conservation, management and the rational use of natural resources. Particular attention needs to be paid to ecological and sociological factors.
3. Nigeria should, establish a single agency to deal with all matters covered by the Convention.
4. Wildlife and forests shall be declared priority sector at the national level for which funds should be earmarked.
5. Law enforcement agencies must ensure that those engaged in poaching, Over-hunting of game resources by the hunters, high rate of poaching activities, illicit trade in wildlife and wildlife products, destruction of their habitat, and such other illegal activities are given quick and deterrent punishment.
6. The potential in wildlife tourism should fully tap and at the same time take care that it does not have adverse impact in wildlife and protected areas. The revenue earned from increased tourism should be used entirely to augment available resources for conservation.
7. Protecting interests of the poor and tribals living around protected areas should be handled with sensitivity and with maximum participation of the affected people. They should have access to the minor forest produce, in the forest outside of national parks and sanctuaries .Employment and means generation for these people is crucial for maintaining symbiosis between the forests, wildlife and the people.
8. People should be encouraged to take up afforestation and conservation in new areas.
9. While strengthening protective measures against traditional threats to wildlife, we should also respond to newer threats such as toxic chemicals and pesticides.
10. There should be greater governmental as well as societal recognition and support for the many non-governmental organization engaged in wildlife conservation. There should be mainstream media to better highlight their activities as also successes of governmental initiatives that have worked.
11. Creatively produced Television Programmes on wildlife and ecology are widely appreciated by young and old as seen from the popularity of dedicated T.V. channels like, Discovery, National Geographic and Animal Planet. It was therefore recommended that dedicated TV station should be established for wildlife management.

12. No diversion of forest land for non-forest purposes from critical and ecologically fragile wildlife habitat shall be allowed.
13. Lands falling within 10 km. of the boundaries of National Parks and Sanctuaries should be notified as eco-fragile zones under section 3(v) of the Environment (Protection) Act and Rule 5 Sub-rule 5(viii) and (x) of the Environment (Protection) Rules.
14. Every protected area should be managed by forest officers trained in wildlife management.
15. Mitigation measures for human-animal conflict and mechanism for crop insurance as also expeditious disbursements of ex-gratia payments should be instituted by States.
16. Forest Commission should be set-up to look into restructuring, reform and strengthening the entire forest set up and affiliated institutions in the country.

VI. CONCLUSION AND RECOMMENDATION

Nigeria is blessed with a rich and unique array of ecosystems and great variety of wildlife, but the conservation of these resources remains precarious. The challenges incline threatened resource, lack of tourism and accommodation, bush burning by the local farmers, overgrazing of native species, lack of funds to wildlife conservation from Local, State up to the Federal level; Lack of well-trained wildlife personnel; Over-hunting of game resources by the hunters and high rate of poaching that is, illegal procurement of protected wildlife such as fish, game and logging activities. The problems and challenges facing the sustainable of wildlife conservation and management in Nigeria could be eradicated if local, state and national bodies join hands together to work as a single body and set up Forest Commission to look into restructuring, reform and strengthening the entire forest set up and affiliated institutions in the country. Promotion and encouragement of research related to conservation, management and the rational use of natural resources particular to ecological and sociological factors should be taken to practice to optimize wildlife activities in Nigeria.

In order to maximize the effective use of wildlife in Nigeria the following recommendation should be reviewed and taken into consideration to deduce Issues and challenges facing wildlife management and conservation in Nigeria

- a. There should be a seminar programme designed for the people in the state to enlighten them more on the benefit and advantages of conserving wildlife.
- b. The use of native equipment such as traditional gun, catapult and land marking for hunting of wildlife animals should be prohibited.
- c. Well trained personnel should be employing to monitor and guide the activities being carried out at all level.
- d. More national parks and conservation areas and existing ones should be maintained.
- e. Government should give room for private sector to establish private conserving center for sustainability of wildlife.
- f. There should be proper planning like the entrenchment of good game management will sustain the present yields or maintain the intrinsic quality of frosts and its resources.

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