

Review

Trends in wildlife conservation practices in Nigeria

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Civilization and development came with force of manipulations on the habitats of most wildlife so as to meet the needs of man. Urge for propagation and sustainability of wild flora and fauna brought about conservation practices that led to designating particular locations for their keeping. These areas are set aside to maintain functioning natural ecosystems to act as refuge for species and to maintain ecological processes. Forest and game reserves are the first protected areas created and maintained in Nigeria. They existed long before the creation of national parks in the country. Most of the game and forest reserves were upgraded and enacted to the status of national parks. In some situations like in Kainji Lake National park, Borgu Game Reserve and Zuguruma forest reserve were merged and enacted with decree No 46 of 1979 to be a national park. Conversion of some of the game reserves to national parks led to increase in the number of national parks.

Key words: Borgu Game Reserve, Zuguruma Game Reserve, flora and fauna.

INTRODUCTION

At the onset of creation all creatures are living freely in the wild. Both flora and fauna were directly under the control of only nature without interference of man. A nation's system of protected areas is designed to suit its own resources and requirements for conserving the resources as a sustainable basis for human development. Conservation practices on natural resources is positive, embracing preservation, maintenance, sustainable, utilization, restoration and enhancement of the resources (IUCN, 1980). Nigeria is a nation that is endowed with numerous natural resources. With a land mass of approximately 932,768 km² including deep mangrove forest in the south and savanna in the north, it includes a human population of approximately 130 million people (Ayo, 2006). Countries worldwide have designated some areas as protected areas resulting in many benefits. This includes the central role they play in socio-economic development of local inhabitants in surrounding rural areas. They contribute to the better lifestyle and standard of living of people. In national parks, game reserves and other protected areas unique natural resources (flora and fauna), sceneries and

landscapes areas are protected, managed and regulated for human benefit from one generation to another. These protected areas are harboring outstanding natural resources and scenic areas of national or international interest/important for scientific, educational and recreational uses.

In Nigeria conservation of diversity of wildlife species are maintained at the optimum level commensurate with other forms of land use in order to ensure the continued existence of wildlife for the purpose of their sustainable utilization for benefit of the people and this is among the objectives of national park services (NNPS, 2006). Proper management of natural resources in any nation projects good image and strength of the country. Forest or any sizable community of trees, shrubs and herbs play indispensable roles in creating and preserving a quality environment (Nwoboshi, 2000). The natural tranquility of these protected areas along with communities of animals and birds in them combine to make each a niche destination (Ejidike, 2008). Conservation of the resources of nation's environment plays essential role in the development of such country. This review aims at revealing different efforts being made by the State and Federal Governments in promulgating new national parks and game reserves in different States in pursuance of conserving wildlife in the nation.

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Table 1. Game reserves of Nigeria in 1969.

Game reserves	States
Borgu	Kwara
Opara	Oyo
Upper Ogun//Old Oyo	Oyo
Okomu Gilligilli	Bendel
Orle	Bendel
Kwiambana	Sokoto
Kamuku	Kaduna
Kogin-Kano	Kano
Yankari	Bauchi
Lake chad	Borno
Ibi	Plateau
Mambilla-Gashakka	Gongola

Source: Afolayan and Ajayi (1983).

HISTORY OF GAME RESERVES AND NATIONAL PARKS IN NIGERIA

Establishment of protected areas in Nigeria dated back to 17th century. Forest reserves were the first protected areas that were created in Nigeria with the effort of Mr. Thompson who was transferred from India to Nigeria (Enabor, 1981). Forestry began officially in Nigeria in 1896 in the Colony and protectorate of Lagos (Lowe, 2000). The Forestry Ordinance was promulgated as the legal instrument for the constitution of forest reserves in 1908. The Forestry Ordinance was revised in 1916 to extend the jurisdiction of the Forest Department to the Northern protectorate. Reservation of these protected areas came as a result of government interest on them to sustain the natural resources in them for benefit of the present and future generations.

Each area has a compact shape with biogeographically meaningful boundaries. According to Afolayan and Ajayi (1983) Nigeria's game reserves were originally forest reserves. Ideas of conserving wildlife in game reserves came up in Nigeria in the early 1930s through colonial officers that urged the government to take up the project. From the survey of wildlife resources of West Africa made by Haywood in 1932 a suggestion that game reserves should be established in savanna areas of Nigeria came up (Afolayan and Ajayi, 1983). Establishment of forest reserves, game reserves, national parks and other protected areas will hopefully result in protecting their natural resources and using them sustainably for perpetuity for human benefits. The policy for conservation of natural resources in game reserves, national parks and other protected areas came as a result of interest in preventing extinction of most of the flora and fauna in the wild. Globalization, industrial development, population increase and urbanization have changed patterns of food production and consumption in

ways that profoundly affect ecosystems (FAO, 2010). Management and conservation of natural resources especially renewable ones that replenish themselves under optimum conditions require attention in organized system that will ensure their sustainability.

These desires for conservation of wildlife through game reserves came to reality through demarcation of Yankari game reserve (1280 km²) in Bauchi State in 1956 and opening of it to the public in 1962 as premier game reserve in Nigeria. This was followed with the demarcation and establishment of Borgu game reserve (2453 km²) in 1962 as the second game reserve. Establishment of more game reserves and Wildlife Advisory Board were recommended for protection of wildlife resources and implementation of management programmes (Petridges, 1965). The number of game reserves in the nation increased from 12 in 1969 to 36 in 1980 (Tables 1 and 2). Figure 1 illustrates the establishment trend of some protected areas for fauna resources in Nigeria.

The Borgu and Zugurma reserves that were adjacent to each other were formally declared as Kainji lake national park in 1975 and the park was promulgated with Decree No. 46 of 1979 as premier national park in Nigeria. Decree No.36 of 1991 established five other national parks and National Park Governing Board; and this brought the number of national parks to six in 1991 in Nigeria. Decree No. 46 of 1999 promulgated Kamuku and Okomu national parks bringing the number of national parks to eight in the country. However, in June, 2006 Yankari national park was handed over back to the State Government as game reserve in Bauchi State, leaving seven national parks currently in Nigeria. Figure 2 map showing most of the protected areas in Nigeria. Merging of some game reserves such as Borgu and Zuguluma and use of some single game reserves like Okomu, Kamuku to promulgate to national parks reduced the numbers of game reserve in the nation (Tables 3 and 4).

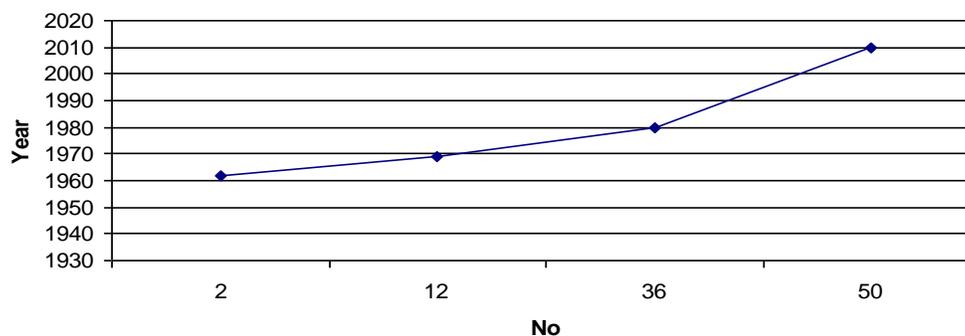
CHALLENGES OF PROTECTED AREAS IN NIGERIA

Natural ecosystems in Nigeria are highly vulnerable to many adverse influences deliberate or inadvertent (Marguba, 2002). Most of these deliberate adverse influences come as a result of illiteracy and lack of awareness among the greater number of the populace around the protected areas. Moreover, most people around the areas are unemployed and most of their soil texture is unsuitable for agriculture leaving nothing other than hunting and harvesting of natural resources from forests around them. Most people inherit only hunting equipment and skill from their parents; as a result poaching is not viewed by such people as a crime against wild animals and breach of law of the land on protected areas. Their belief is that wildlife is gift from nature and is

Table 2. National parks and game reserves in Nigeria (1980).

Game reserves	State
Lake Kainji	Kwara/Niger
Ebbazikampe	Kwara
Old Oyo	Oyo
Okpara	Oyo
Upper Ogun	Oyo
Ohosu	Bendel
Okomu	Bendel
Ologbo	Bendel
Iri-Ada-obi	Bendel
Ologbolo-Emu-Urho	Bendel
Orle River	Bendel
Gilli-Gilli	Bendel
Amambra	Anambra
Udi/Nsukka	Anambra
Akpaka	Anambra
Game reserve A	Cross River
Game reserve B	Cross River
Obudu	Cross River
Stubbs Greek	River
Ibi	Plateau
Wase sanctuary	Plateau
Wase rock bird sanctuary	Plateau
Pandam	Plateau
Pai River	Plateau
Ankwe River	Plateau
Nasarawa	Plateau
Damper sanctuary	Plateau
Yankari	Bauchi
Lame/Bura	Bauchi
Lake Chad	Borno
Kogin Kano	Kano
Dagida	Niger
Alawa	Niger
Kamaku	Kaduna
Kwiambana	Sokoto
Gashaka	Gongola

Source: Afolayan and Ajayi (1983).

**Figure 1.** Trend of establishment of wildlife protected areas in Nigeria.

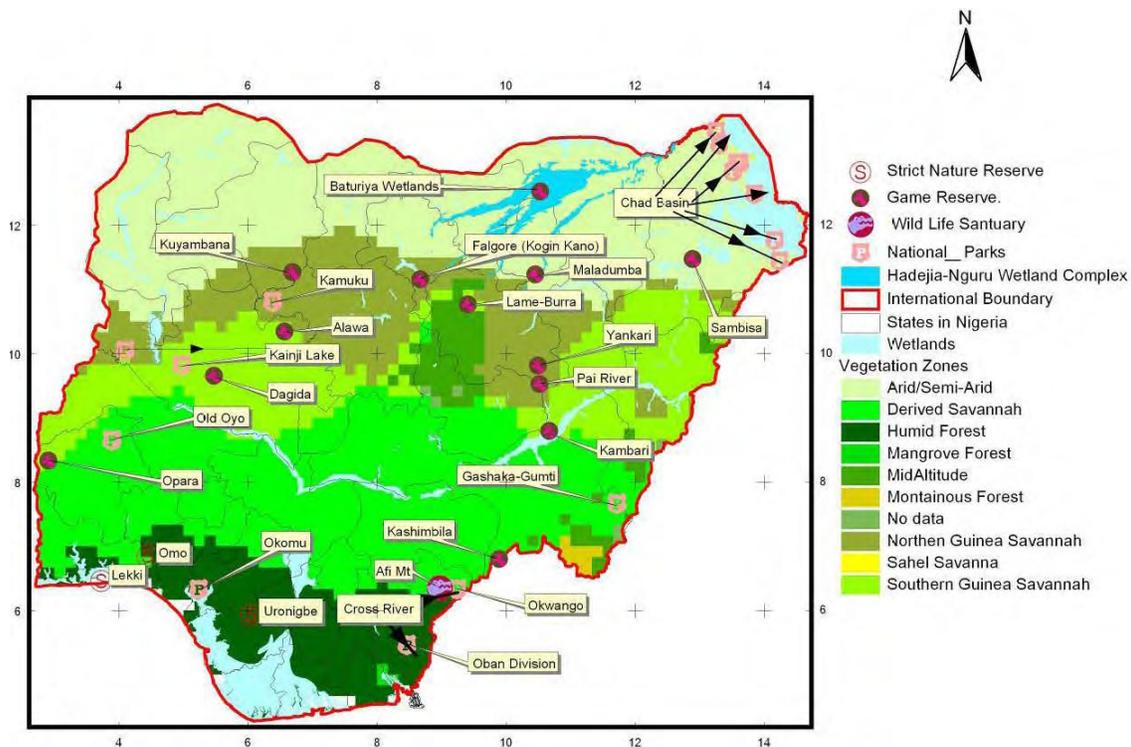


Figure 2. National parks, game reserves, and similar protected areas in Nigeria. (Prepared by the Nigerian conservation foundation, June 2008). Source: USAID (2008).

Table 3. National parks, game reserves and sanctuary in Nigeria (2000).

National parks	State
Kainji Lake	Niger
Chad Basin	Borno/Yobe
Okomu	Edo
Old Oyo	Oyo
Cross River	Cross River
Gashaka Gumti	Taraba
Kamuku	Kaduna
Game reserves	
Anambra	Anambra
Akpaka	Anambra
Aguleri	Anambra
Ohosu	Edo
Ologbo	Edo
Kwale	Edo
Ologbolo-Emu-Urho	Edo
Gilli-Gilli	Edo
Taylor Creek	Lagos
Imeko	Ogun
Ebbe Kambe	Kwara
Okpara	Oyo
Udi/Nsukka	Enugu
Stubbs	Rivers
Stubbs Greek	Rivers

Table 3. Continued.

Kwiambana	Sokoto
Yankari	Bauchi
Lame /Bura	Bauchi
Falgore	Kano
Kogin Kano	Kano
Montane	Benue
Alawa	Niger
Karabana	Niger
Dagida	Niger
Kambari	Plateau
Hadeji Batariya wetland	Plateau
Ibi	Plateau
Pandam	Plateau
Wase Rock	Plateau
Pai River	Plateau
Ankwe River	Plateau
Nassarawa	Nassarawa
Orle River	Delta
Iri-Ada-Obi	Delta
Ifon	Ondo
Sambisa	Borno
Kashimbila	Taraba
Sanctuary	
Wase rock bird sanctuary	Plateau
Damper sanctuary	Plateau
Wase sanctuary	Plateau
Nguru wetlands bird sanctuary	Yobe
Baturiya birds sanctuary	Jigawa
Hadejia Nguru wetlands and birds sanctuary	Jigawa

Table 4. National Parks in different Ecological Zones of Nigeria.

National parks	Ecological zone	Year
Kainji Lake	Guinea Savanna	1979
Old Oyo	Forest /Guinea Savanna	1991
*Yankari	Guinea Savanna	1991 (1991-2006)
Gashaka-Gumti	Guinea Savanna/Montane	1991
Kamuku	Guinea Savanna	1999
Okomu	Rain forest	1999
Chad Basin	Sahel Savanna	1991
Cross River	Rain forest	1991

*Now game reserve.

owned by everybody hence there is no need restricting its use. Harvest/exploitation of forest fruits, seeds, nuts, vegetables, herbs and fuel wood for the day to day needs of human are the only and main occupation of most the

people that dwell around most of the protected areas. These actions are among the main problems protected areas usually face. In such areas indiscriminate killing of young and pregnant animals that lead to the

disappearance of valuable wild animal species is also a common practice. Indiscriminate exploitation and utilization of natural resources in both protected and unprotected areas usually lead to extinction of most of our renewable resources as well as non-renewable resources. These indiscriminate harvesting of most flora and fauna resources in parks and game reserves had forced most wild animals into endangered list. Global climate change presents the largest uncertainty and threat to the sustainability of our present natural resources and ecosystems, as a result most flora and fauna are now passing through a lot stress due to either lack of adequate rainfall and very high temperature or severe wind out break.

Migration of most large wild animals without migrating back to their former destination contributes a lot to reduction in the population of such migratory species. This is exactly what happened in the case of elephants that were many in the 1980's in Kainji lake national park and its environs. According to personal information the elephant migrated out and could not come back as a result of development that occurred on their migratory route. These days hardly will one view up to 30 elephants in a herd in the park. Livestock grazing, lopping of tree branches and cutting down of trees for livestock food, fuel wood as well as timber is among the adverse influences of the people dwelling around protected areas.

BIODIVERSITY CONSERVATION STRATEGY

To maintain healthy ecosystems we have to strive to achieve a balance between society's ever-increasing need for goods and services and conservation of natural environments. Ecological zones influence local and global climate and man depend on suitable environment for his optimum performance. Building of infrastructures, staff capacities, making management plans, carrying out public enlightenments as well as immediate host community participation in park management are quite commendable conservation practices man is trying to implement for proper conservation of natural resources. However, more need to be done in the areas of updating the laws governing the protected areas in Nigeria so as to reflect the current realities especially in the area of sanctions being impose on the defaulters in protected areas.

Nigerian rainforest zones and savanna areas have potentials of providing for human needs in terms of economy, leisure among others (Ejidiike, 2010). Additional national park (Okomu) was promulgated in 1999 in the rainforest zone of the nation in order to give better attention to the conservation of the existing forest ecosystem in the southern Nigeria thereby bringing the number of national park to two in the rainforest zone (Table 4). Maintenance of various reserves and parks and proposals for more in Nigeria has long term strategies in conserving the naturally endowed

biodiversity in the nation. The Nigeria's premier national park that was promulgated in 1979 with decree No. 46 was followed by the promulgation of five and two other national parks in 1991 and 1999 with decrees No.36 of 1991 and No. 46 of 1999 respectively proving the interest of the Federal Government in the biodiversity conservation. It is known that protection of chimpanzees *Pan troglodytes* and Cross River gorilla *Gorilla gorilla* among others that are in endangered list have being receiving better attention and protection through promulgation of Cross River national park in 1991 and other national parks in the nation. The fauna species inventory of the Cross River national park revealed that there are 15 types of primates of which 78% of the species recorded in Nigeria are found there (NNPS, 2006). The wild animals especially elephants that were migrating in and out of the country in the 1980s are now being conserved in the parks with maximum guide. Nigerian Government in active collaboration with its Cameroonian counterpart is assiduously working to ensure the protection and survival of the highly endangered gorilla species (NNPS, 2006). Promulgation of Okomu national park create conducive environment for forest buffalo that are now being conserved in the park proving the statement of Melletti et al. (2007) that forest buffalo (*Syncerus caffer nanus*), (Family bovidae) typically inhabits the dense rain forest. Nowadays communities around each national park are being involved in the management of the parks through their traditional chiefs. Most of the indigenes of such areas are employed and trained as game guards and rangers in the park.

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