

ENVIRONMENTAL SUSTAINABILITY: A SURVEY OF ENDANGERED ANIMAL SPECIES IN NIGERIA

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ABSTRACT

Wild life species is one of the forms of living organisms that comprises of biodiversity. The Nigeria environment is the home to many native and exotic wild life species. The paper reviewed the survey of endangered animal species and its importance for sustainable environment in Nigeria. The specific objectives of the paper are to assess the importance of animal species in Nigeria, to examine the reasons for animal attack, and to suggest ways of realizing environmental sustainability in Nigeria. The findings showed that ten of the Nigeria animal species are endangered due to habitat loss, hunting poaching, civil wars pollution and other human interferences. The wild life species are important for the maintenance of biodiversity, environmental sustainability, boosting of tourism, besides making the Nigerian environment beautiful and exciting place to live. It is recommended that the government should intensify the awareness campaign on the danger of animals going extinction, re-defining Decree No.11 of 1985 of the National House of Assembly to include amphibian and other endangered animal species, government should not grant permission for the killing of the endangered species, road safety laws should extend to prohibiting killing of animals species, all non-poisonous snakes should be labeled endangered species in an attempts to preserve them. Nigerian government should therefore put more efforts towards the protection of endangered species so that they do not become extinct due to their importance and relevance to development.

Keywords: Sustainability, Endangered Species, Wildlife, Habitat and Biodiversity

INTRODUCTION

Environmental decay as it is now often widely used emerges from the concept that the natural environment was stable and safer in the past than it is today. Man's effort to explore and exploit more remote places at greater risk and cost using advanced technology for food and industrial raw materials have resulted in environmental degradation or invariably disaster (Maiangwa, *et al.*, 2007).

Concern about the environmental effects of human activities is linked with the concern for sustainable development for the total environment, especially from the perspective of the biological diversity with it and in relation to the human health, safety and quality of life. The World Commission on Environment and Development

defines sustainability as that development that meets the needs of the present without compromising the ability of the future generations to meet their needs. (WCED, 2007). The various activities of exploitation and exploration of Nigeria resources to satisfy our demand for consumer goods have had considerable effects on the natural environment. The environment had been damaged far – reaching where the soils, plants, animals and water resources are adversely affected (Upasana and Wattal Dhar, 2004).

Wild-life species are one of the forms of living organism that comprises of biodiversity. The Nigeria environment is the home to many wildlife species. However, many of these species are endangered due to habitat loss, hunting, civil war, pollutions and other human interferences.

Dodoes have become a symbol of extinction. The last of these flightiness birds died in Island of Mauritius in 1680 (Goudie, 2012). Many other animal species have gone extinct and other has been in danger of extinction. According to Leather (2012), inspite of the Stockholm conference, the killing of quota for wale was set at 1,400 for 1992; 2000 vertebrate animals and 25,000 species of genetic diversity is lost. The situation is even more serious in Nigeria where people are held in high regard if they are able to tame and kill wild animals.

The paper aimed at highlighting the roles of the animal species in Nigeria environment, the effects of endangered animal species on the environment.

OBJECTIVES OF THE STUDY

The specific objectives of the paper are:

1. To assess the importance of animal species in Nigeria.
2. To examine the reasons for animal attack.
3. To suggest ways of realizing environmental sustainability in Nigeria.

IMPORTANCE OF ANIMAL SPECIES IN NIGERIA

Wild life species are very important for maintenance of biodiversity and environmental sustainability. Wild life species play irreplaceable roles in ecosystems by sustaining food chains and food webs. They also play roles in carbon and nutrients cycle and make the Nigeria environment a more beautiful and exciting place to live.

Gondie, (2012), pointed out some reasons to justify the co-existence of the wildlife species as follows:

- i. That it is asserted that species have the right to co-exist with us in our planet and that we have no right to exterminate them.
- ii. That it is asserted that we know little about our environment and that we should learn all we can before we destroy it.
- iii. That plants and animals are beautiful and have so enriched our lives.

- iv. That as diverse as the environment is, the more checks and balance there to maintain the stability, the better.
- v. That preserved habitats have great recreational value and in the case of some game reserves, they may have economical value as well.
- vi. That many species have proved to be of great medical value and there is no doubt that further researches will be revealed more (table 2).

A significant proportion of drugs are derived directly or indirectly from biological sources. About 40% of the pharmaceuticals used in the US are manufactured using natural compounds found in animals. Medicinal drugs derived from natural sources plant and animal make an important global contribution to health care. An estimated 80% of people in Less Developed Countries (LDC) rely on traditional medicine for primary health care. Many of these natural chemical cannot be manufactured synthetically. The cardiac stimulant digitoxin, the most widely used cardiotoxic in Western medicine is extracted directly from dried digitalis (fox glove), synthetic vincristine used to treat childhood leukemia is only 20% as effective as the natural product derived from *Catharan thusreuses* (Rossey periwinkle) (Kate and Laird, 2009).

- vii. That by protecting animal species, we maintain the species diversity upon which future plant animals breeding work will depend. Once genes have been lost, they cannot be replaced.
- viii. Wild livestock species are essential for agricultural improvement because they are sources of new economic animals.

Popular activities such as gardening caring for aquariums and collecting butterflies are all strongly dependent on biodiversity. A fairly outing to the botanical garden or zoo is as much an aesthetic or cultural experience as it is in educational one. It would be a dull world without the flowers and song birds around us, or the whales in the sea or the magnificent animals on the plains of Nigeria.

- ix. Wild animals like leopard, crocodile and antelope are hunted for their meat and eggs. Proteins and other nutrients are mostly supplied through these wild animals, fishes and birds providing up to 70% of their protein diet.

Given the ultimate importance of biodiversity to Nigeria environment, there is need to identify major causes of its losses.

ATTACK ON WILD ANIMALS

Animal species become endangered for various reasons. These include:

Direct Attack on the Habitat

In Nigeria, destruction of the habitat contributes much to a species decline; the Atlas of endangered species label as not only the most significant threat but the most difficult to prevent (Awake 2009). According to NEST, (2001), a few wild life habitats in Nigeria can still be described as virgin. These are to be found mainly in rugged slopes of high land where topography and soil factors preclude the growth of convectional farm crop and timber, thus rendering the area unattractive to human settlement.

The country booming population growth force human to enforce more and more on land that was formally been home of wild animals. In Nigeria, many of these wild animal species have become extinct as a result of change in the natural rain forest at the rate of 405,000 hectares per annum. According to Nest, (2001), that the whole species of animal such as Cheetah, Giant eland, Piggling Hippopotamus and black Rhinoceros have become extinct in the country in the last half of a century (table 1). This constitutes serious environmental problems conservation continue to face.

Table 1: Animal Species that Have Gone Extinction

S/N	Animal Species	Year of Extinction
1	Dodoes	1680
2	Cheetah	Mid 19century
3	Giant eland	Mid 19century
4	Pigury Hippopotamus	Mid 19century
5	Black Rhinoceros	Mid 19century

Source: Nigeria First National Biodiversity Report 2001

This is a very serious threat to our tropical rainforest wild life heritage. In some part of northern Nigeria such as Manga grassland north of Gashua in Borno State, the destruction of plant cover has been so ruthless that ancient sand dunes long stabilized vegetation, are on the move again. Animals hitherto enjoying this habitat are force to move southward where climate in the new environment might not favour their continue existence. It has been observed NFNBR, (2001) that 48 species of animals are endangered; 16 species of animal species are categorised as rare; 30 species of animal species are vulnerable (Table 2).

Table 2: Endangered Animal Species in Nigeria

Species Animal	Common Name	Main Uses	Status
<i>Crocodylus nitoticus</i>	Sleader snouted crocodile	Food/medicine/bags	Endangered
<i>Osteolaemus tetraspis</i>	<i>Osteolaemus tetraspis</i>	Food/medicine	Endangered
<i>Struthio camelus</i>	Ostrich	Food/Medicine	Endangered
<i>Psittacus erithacus</i> <i>Cercopithecus erythrogaster</i>	African grey parrot	Medicine/pet	Endangered
<i>Loxodonta Africana</i> <i>Trichecus</i>	White throated monkey	Food	Endangered
<i>Senegalensis</i> <i>Giraffa camelopedalus</i>	African bush Elephant	Food/ivory	Endangered
<i>Python sabae</i>	Manatee	Food	Endangered
<i>Gazella dorcas</i>	Giraffe	Food/Medicine	Endangered
	Royal python	Bags	Endangered
	Royal python	Food	Endangered

Source – Nigeria First National Biodiversity Report 2001

The felling of trees for timber and clearing of land for agriculture result in the death of plants, animal, birds, reptiles and insects. Others are scared to where they are eventually tamed and killed by either human or other predators. Some die of starvation because their plant food has been destroyed.

Severe soil erosion, flooding and famine are often characteristics of areas where the natural vegetation has been destroyed. Evidence of this abounds in various part of the country, as floods wash lands, they kill animals, aquatic lives in our rivers and lakes have also been adversely affected by hydrological changes brought about by Dam construction and drought. The wet land of Hadeija valley are very good example. Equally important is the fact that when rivers overflow their banks due to human activities as earlier mentioned, and more fishes that go with the flood do not all go back to the rivers when the water receded. Some get trapped in depressions where the later die when the water in the depressions or ponds dry up.

Effluents and solid wastes from industrial sources as well as oil spillages in the country's oil producing riverine areas are increasingly reducing, some of our water bodies to veritable sewages depots for poisonous chemicals which either kill or contaminate our fishes or other aquatic life. Wild animals also drinking such water may eventually die.

Equally important are the Nigeria domestic Cats, some which run into the wild, especially in the rural areas and hunt wild species like Rats, Rabbits and others, while the humans either poison or release domestic Cats to kill rats in their homes, those that go into the wild concentrate on the wilds animas who are either killed or chased away from their habitats by the new predators.

Direct Attack or Hunting

Man accelerates the extinction by a variety of acts: such as predation as with hunting of animals, collecting eggs and plants (Goude, 2012). Although, Nigeria never had the large herds of animals of Kenya and Tanzania, nevertheless, it still had a great wild animals of many varieties and there is no doubt that many of them have disappeared forever. One important reason is the continued direct attack on them by humus.

Many Nigerians prefer what they term BUSH MEAT to substitute for the domestic goats, sheep cow (ironically, the crave to rear these animals like lion, buffalo's, leopards and others from most of bushes). Many Nigerian farmers make it a duty to hunt all the wild animals in and around their farms. They use guns and traps of various types to kill these animals. Since the population of the country continues to multiply, more farms are opened and more animals are killed almost unrestricted. Apart from the professional hunters, even some Nigeria civil servants (especially the security guards) spend their leave period hunting. This outrageously threatens the continued extent of the countries animal species.

The attitude of the Nigerian government and its citizen towards animal's species does not help matters either. A giant hippopotamus was killed on the order of the

government in Tanga, west of Pandan wild life area of plateau in January 1993. Though labeled an endangered species by the decree number 11 of April 1985, the farmers complained that it was a threat to their movement. The hunter was paid twenty thousand naira by the government for killing it. Many more hippopotamus and crocodiles have been unofficially hunted and killed for attacking cows crossing a river in the area and its neighborhood. On the Nigeria Newday of January 29th 2001, the Secretary of Awe Local Government Area of Nasarawa State was given a befitting snapshot down on the paper for killing a giant Hyena with his Car. Many Nigerians have been known to kill birds and other animals with their vehicles for the fun of it. Many of which are already endangered in the country. Many snake species have almost gone. The vanguard Newspaper of August 9th 2001 carried the story that Umaru Danjuma got a reward of N100,000.00 for killing a giant 1.5meter long Snake on the August 5th 2001 from the deputy governor of Kano State. What a tourist loss?

Since our forests are going, it follows that pythons are also being eliminated. Skins of pythons cost a lot and its fats are posses used for medicine. Other animals like elephant, rhinoceros and tiger are known to costly part both for manufacturing of ornaments and medicine. Hunters have now almost eliminated the animals in our wilds (except for few reserves). They are now facing the country's game reserves. The guards of many of our game reserves e.g. Kamuku, Yankari, Kainji are having a hail of a time keeping them off (IUCN, 2001).

Species are in danger also because of the continued bush burnings. According to Ayeni, (2008), pockets of bush containing wild life are often encircled and burnt down, while a ring of hunter wait with their cutlass, dogs, guns, clubs and harpoons to kill any wild animal that want to escape from the fire, when bushes are burned to clear areas for farming, animals die.

Bush burning enables the killing of whole species of animals including their young offspring. Carnivores easily catch some young animals whose parents died in the fires or are killed, die by starvation. This explains why there is very little surviving wild life around area of high human population density in the southern states of Nigeria (Ayeni, 2005).

Also important among the reasons why animals species are in danger is incessant communal clashes and wars in the country. Before the coming of the Europeans, these wars had little impact on the animal species in the country. However, with the entry into the country of Guns, Grenade, Bombs to mention a few, the effects have been devastating on the animals. The Nation witnessed a civil war from 1967 – 1970 in the Eastern part of Nigeria where bombs, grenades, and guns were used recklessly. These not only frightened animals away from the area, but many got killed. The Benue valley has continued even after the war to witness clashes between the Tiv tribe and their neighbors in Taraba, Nassarawa Enugu and Benue State itself (Nest, 2001).

There have been many clashes in Akwa-Ibom, Delta, Edo, all the Yoruba and Igbo States. The other states of the North have witnessed religious as well as

Farmers/Fulani cattle rearers clashes and Bokko Haram crises. When these clashes take place, people flee their homes to the few remaining habitats of animal species, which in turn flee to Cameroun, Benin Republic and other neighboring countries or are predated upon by the hungry fleeing refugees. Even the few animal reserves the country boasts have continued to be affected as hunters take advantage of the breakdown of law to hunt in game reserves (Nest, 2001).

Over fishing in our lakes and rivers as well as our offshore water threaten many species of fish moreover; local methods of fishing most of the time do not spare the young species. Sometimes chemicals like Gamalin 20, Didimac 25, Aldrex 40, and poisonous leaves are used to eliminate whole species of fish in ponds and rivers. Explosive are often used to destroy all aquatic animals within areas of explosion. Furthermore, apart from the fact that birds and other animals, which drink the poisoned water, die and farmers; apply the above chemicals on their crops during planting seasons and all the birds and animals, which eat these crops, die (Nest, 2001).

CONCLUSION

The progress report on achieving environmental sustainability has shown that biodiversity continue to decline in Nigeria. Many animals in Nigeria and beyond are endangered or have gone extinct. Nigerian should consider man induced loss of animal species as loss of heritage for our children, unscrupulous degradation of our environment. Nigerian government should therefore put effort towards the protection of endangered species so as to make them become extinct.

SUGGESTIONS FOR REALIZATION OF ENVIRONMENTAL SUSTAINABILITY IN NIGERIA

In order to ensuring environmental sustainability; the following suggestion should be taken serious. These include:

- a. It is clear that most Nigerians do not know that many of the animal species they hunt or eat their meat daily are in danger of extinction. Some do not even know that there is a government decree banning the killing or trade of some animals. Greater awareness is highly suggested. The country should not wait until it gets international grant or aid for such awareness. It should be regarded as first in Nigerian before a global problem.
- b. The National House of Assembly should re-define decree No. 11 of 1985 to include amphibian and other endangered animal species not included in it and give it formal and proper legislation. The law enforcement agents should bring to book all Nigerian who go against this law.
- c. Those arrested should be paraded by the police before the process in a way similar to that usually done to armed robbery suspect in the country.
- d. The government should show in every ramification that she is serious. It should never grant the permission for the killing of the endangered species at every flimsy excuse by farmers and transporters. Where necessary, farm routes

or even settlements near reserves should be relocated rather than ordering the killing of Crocodiles, Hippopotamus, Lion etc. as it is usually done. Any Nigerian seen to be carrying Hyenas, Baboons, Monkeys and the like about for monetary plays should be arrested.

- e. Road safety laws should extend to prohibiting killing of animals species. Drivers who kill animals should be arrested and tried the case given publicly.
- f. It should be told that not all snake species are poisonous. All non-poisonous snakes should be labeled endangered species. Since the many snake are killed, not for meat, but for the fact that they are snakes. This should be discouraged.
- g. Pastoral anomalism should be discouraged to minimum. Feeds should be provided for the cattle as done by developed countries in well-fenced locations. There should be more research on increasing yields of domestic animals protein in the country. This will reduce the crave for bush meat by city dwellers.

REFERENCE

- Awake (2009), Endangered Species. New York Watch Tower Bible and Track Society Pp 48.
- Ayeni, J.O. (2005), The Importance of Genetic Diversity in Livestock Populations of the Future. *Journal of Animal Science*, **77**, 61-69.
- Ditmar, L.R. (2008), Cytogenetic Survey in Endangered Domestic Species Reared in Southern Italy. *Chromosome Research*, **20**, 785.
- Goudi, A. (2012). The Nature of the Environment Massachusetts: Basil Blackwell. Longman Singapore Ltd.
- Leather, D. (2012). Genetic Diversity and Networks of Exchange: A Combined Approach to Assess Intra-breed Diversity. *Genetic Selection Evolution*, **44**, 17. [doi:10.1186/1297-9686-44-17](https://doi.org/10.1186/1297-9686-44-17)
- Kate, T. and Laird, J. (2009). Animal Diversity Web. University of Michigan Museum of Zoology, 1995–2006. Retrieved 22 May 2007.
- Maiangwa, M.G, Ogunbible, A.O, Olukosi, J.O, and Atala, T.K. (2007). Land Degradation. Theory and Evidence from the North West Zone of Nigeria. *Journal of Applied Science* 7: 785 – 795.
- Mather, A.S. and Capman, K. (2010). *Environmental Resources Singapore*: Lonman Singapore Ltd.
- IUCN (2001). The IUCN Red List of Threatened Species: Mammals of Nigeria. Retrieved 22 May 2007.

Upasana, M. and Wattal Dhar, D. (2004). Biodiversity and Biological Degradation of Soil Resonance 9: 26 -33.

Reference to this paper should be made as follows: Yunana, Mba Abui *et al.*, (2013), Environmental Sustainability: A Survey of Endangered Animal Species in Nigeria. *J. of Environmental Sciences and Resource Management*, Vol. 5, No. 2, Pp. 80 – 88.
