

# Assessment of biodiversity laws and policies in protected areas: case study of Cross River National Park, Kainji Lake National Park, and Old Oyo National Park, Nigeria

G.A. LAMEED\*, M.G. OLUJIDE

Faculty of Agriculture and Forestry, University of Ibadan, Nigeria.

\*Email: lamgbola2008@gmail.com

## ABSTRACT

*This study assessed the biodiversity laws and policies in Protected Areas, using Cross River National Park, Kainji Lake National Park and Old Oyo National in Nigeria as case study. The problems emanating from such policies and legislation were identified and integrated approach in the conservation of the nation's biodiversity was investigated.*

*The results revealed that the present law (Decree 46 of 1999) operating to conserve wildlife resources in the Protected Areas is weak and endangered species Decree of 1985 have limited operational coverage. The rate of arrest and aggregate of fine in Kainji Lake National Park (KLNP) increased from 172 people arrested in 1991 to 229 people in 2001, with aggregate increase in fine from N31,800 to N1.5million. In Old Oyo National Park (OONP) there was no record of arrest in 1991 until the year 1998 when the rate of arrest increased to peak (65 people) with aggregate fine of N74,300. Cross River National Park (CRNP) also witnessed no rate of arrest until 1994 when 3 offenders were first recorded. The implementation of the decree in area of apprehension of offenders is totally weak in CRNP. The response of local people towards government policies in CRNP was poor in all the highlighted conditions except for tourism possibilities and International Organization assistance. While in other two National Parks (KLNP and OONP), the respondents supported conditions and policies implementation. In general, the people response towards government policies in all the study areas was significant ( $P < 0,01$ ).*

*It was concluded that the protection staff should be more enhanced and various facilities needed should be considered for their live insurance. Encouragement should be given to community participation, traditional practices, customs, and taboos that are in consonance with the ethics of conservation.*

*Key words: biodiversity, government, legislation, national parks and policies.*

Traditionally and culturally, African communities were originally linked with their natural resources, especially resources of biodiversity. However, conservation policies coupled with militaristic laws have tended to sever these linkages. This alienation of indigenous communities

backed up with repressive legislation had no respect for Chiefs, rural communities, and their traditional and cultural values. This approach to conservation has grievous consequences by dismembered the philosophy underlying the structure of African life (Nwenya & Cosmas, 1991).

Deprivation and loss access to these protected areas thus evoked a strong sense of injustice among the African rural communities who lived closest to resources of biodiversity to the extent that they resorted to “illegal activities” especially poaching. The colonial and post-colonial governments responded by adopting a vigorous militaristic anti poaching strategy. The communities interaction with biodiversity resources is often termed illegal, under the existing repressive laws and policies, hence the biodiversity have continued to suffer severely from poaching. Practically, all the former colonial African countries had undergone this experience in their hand to conserve what was left in their biodiversity resources. According to Bromley and Cornea (1989), any conservation legislation that refuses to accommodate the needs of the local people will fail.

According to Ibeun (1991), Nigeria is blessed with abundant natural and mineral resources which if fully harnessed will provide the nation with high revenue and foreign exchange. The biodiversity resources if carefully and skillfully tapped will contribute immensely to these much needed revenue and foreign exchange. Unfortunately, the nation's biodiversity is grossly threatened as a result of many factors especially obsolete legislation. Nest (1991) reported that tropical rainforests in Nigeria are being lost at the rate of over four hundred and five thousand (405,000) hectares per annum. This implies that about twenty (20) to seventy five (75) species will be lost per day, and ten million species would have gone by the year 2040.

Policies and legislation that could have salvaged the problem of biodiversity loss in Nigeria do not take the needs of the local people into cognizance hence not successful in Nigeria. These policies and laws which metamorphosed from regional/state edicts are not uniform in all the states of the federation and the associated protected areas, hence there is need for a national and unified law that will bind all the states and their associated protected areas, Ayeni (1992). All existing wildlife laws in Nigeria originated from the old Western Nigeria Wild Animal Preservation Law of 1916 as reported by Ayeni (1992). The laws are as follows, The Wild Animal Preservation Law 1916 (cap 132): The law protects certain species of wildlife. Examples are elephants, ostriches, and crocodiles. This law also allows giving of licenses to hunt certain species of animals.

The law divides various animals' species into schedules:

Schedule 1: Animals completely protected by law.

Schedule 2: Animals hunted or captured under a visitor, resident or non-native licence.

Schedule 3: Animals that can be hunted freely.

This law also prohibits the use of traps in wild animals. Penalties are stipulated for contravening this law. The law has however, been amended by Lagos and former Bendel States. This law also has jurisdiction over Ondo, Ekiti, Ogun, Oyo, and Osun States. The Wild Animal Preservation Law was documented on 30<sup>th</sup> may 1916.

Endangered Species Decree of 1985 was promulgated on the 20<sup>th</sup> April 1985 and has jurisdiction in all the states of the federation. The law seeks to control the trade and traffic of endangered species. The law came into being as a measure to implement the convention on International Trade Traffic on Endangered species of wild fauna and flora (CITES). The convention came into force on the 3<sup>rd</sup> of March 1973 in Washington DC. Nigeria became a signatory to this convention on the 9<sup>th</sup> of May 1974.

This paper therefore, highlights and access the existing biodiversity laws and policies especially those of wildlife in three national parks (Old Oyo National Park, Kainji Lake National Park and Cross River National Park) as well as the rate of arrest within the period in Nigeria. The specific objectives are as follows:

1. To assess the current biodiversity laws and policies in Nigeria and its acceptability among indigenous communities in and around protected areas.
2. To determine problems emanating from such policies and legislations as they affect the local people livelihood, as well as the rate of arrest of offenders within the period.
3. To suggest an integrated approach in the conservation of the nation's biodiversity conservation on the conservation of migratory species of wild animals.

## STUDY AREA AND METHODOLOGY

The study was carried out in three National Parks (Kainji Lake National Park, Cross River National Park and Old Oyo National Park) in Nigeria. The Kainji Lake National Park (KLNP) is located at the boundaries between the Sudan and Northern Guinea Savannas. It lies between latitude 9°45' and 10°23'N and between longitude 3°40' and 5°47'E. It covers a total area of 5,340.82 km<sup>2</sup>. The Borgu sector covers an area of 3,470.02 km<sup>2</sup> while the Zugurma sector is 1,370.89 km<sup>2</sup> it is situated in Niger and Kwara States.

The Cross River National Park covers an area of about 5,344 km<sup>2</sup> with two divisions namely Okwangwo and Oban. It lies between latitude 6°4' and 6°29'N; longitude 9° and 9°27'E. South east of Obudu town with the eastern boundary extending along the Cameroon border (Obot *et al*, 1996).

Old Oyo National Park is situated in Ifedapo Local Government Area of Oyo State. It lies between lat 8°5'N and 9°0'N and longitude 3°35'E and 4°42'E. It covers an area of about 2,550 km<sup>2</sup> enclosing the historical sites and ruins of Old Oyo Empire.

Numbers of methods were employed to carries out the research. The methods include:

1. **Use of questionnaires:** Questionnaires were administered in some of the villages of the study areas. Since majority of the respondents were illiterates, an interpreter was employed to interpret the questions to respondents.

The study was carried out in the three National Parks: KLNP, OONP and CRNP. In KLNP, villages covered are Wawa and Ibbi; Sepeteri for OONP while Butatong, Kanyang (Nos I and II), Kakwe, Beebo, Obudu Cattle Ranch, Bajike, Wula and Abo-Mpang were covered for CRNP, and respondents were picked randomly. Information sheets were drawn and taken to the three National Parks Headquarters to obtain information and data on the parks.

2. **Oral interviews:** A series of oral interviews were also held with some individuals to obtain information that are not provided by the questionnaire.

3. **Files-records and personal observation (Desk review):** Information obtained was augmented from files and records from the head offices of the three parks; Information was also obtained from journals and other materials from libraries while personal observation was also taken into cognizance.

The overall sample size of questionnaire administered is 266 (CRNP - 133, KLNP - 133 and OONP - 133). Stratified sampling technique was used, according to Harper (1977).

## RESULTS

The legal document that established the National Parks, their staff strength and number of protection staff in each park are listed in Table 1; Each National Park is making up of at least six departments, viz: Engineering, Maintenance, Ecotourism, Account, Protection, Research, Planning and Publicity/exhibition. Among all, protection staff is the highest in number with the main function of total surveillance, apprehension, and prosecution of any unauthorized intruder or offender of the regulation.

Table 2 traced the former and present laws and conventions that are operating in the protected areas. All the protected areas under study metamorphosed from gazette Game Reserves through various Wild Animal Laws and Edicts dated back to 1963 according to regional basis and amended in 1975. Presently, Decree 46 of 1999 is the legal policy of protection and management, while Decree 11 of 1985 is meant for protection of endangered species, control of International trade and traffic.

The rate of arrest and aggregate of fine accrued from the three protected areas (KLNP, CRNP, OONP) were presented in Tables 3, 4, and 5 respectively. Between the years 1991 to '98 the number of arrest and rate of those fined or jailed in each National Park was summarily lowered than the year 1999 to 2002, despite the fact that amount of fine and other punishments in the present Decree 49 of 1999 are more stringent. The illegal hunting and other offences committed are seriously embedded in human's nature and practiced along with other demographic factors such as culture, educational background, age, and circular job.

Various offences committed in the National Parks during the study range from poaching, grazing, farming, bush burning, logging, and people residing within the territory. Table 6 indicated the rate of arrested people in each of the National Park. All the illegal activities were observed in the three study sites, but the rate of arrest were higher in OONP and KLNP, while the arrest rate was least in CRNP.

The people's responses towards government policies are shown in the Figures 1, 2 and 3, for the three parks respectively while the three parks are later compared to give an overall outlook of the people's responses to the wildlife policies in Nigeria (Figure 3). The government policies are coded P1, P2, P3, P4, and P5 respectively.

P1 means that government has placed a ban on the extraction of resources from the park through legal machineries. P2 means that government has made a decision to map out the

specific areas for the purpose of conservation. P3 means that the place should be conserved for posterity in such a way that the resources should be protected and at the same time rationally utilized by the government and the people to ensure its perpetuity. P4 means that tourism possibilities of the area are to be harnessed. P5 means that the government has allowed some International organizations to give aids to the area in several forms. These include financial, institutional, management and administrative aids.

However, it was noted that policy 5 is only peculiar to CRNP because of its ecological qualities, which are of high significance. The response of the people is coded S and NS. S - These are in support of the policy. NS - These are not in support of the policy.

## DISCUSSION AND CONCLUSION

For each of the park, the response of the people was highly significant at 1% probability level; hence the null hypothesis (Ho) that states that the response of the local people of the parks is not contingent on the policy is rejected. The combined response for the three parks is the same as other park. This implies that the people are highly sensitive towards the policy of government. However, the nature of their sensitivity is that they are not in support of government policy.

From the results, it was observed that there are array of problems encountered during anti poaching patrols, these include.

- (a) Attack of park guards (Peculiar to KLNP and OONP)
- (b) Inadequate camping equipment (Peculiar to CRNP)
- (c) Inadequate fire arms (Peculiar to CRNP)
- (d) Inadequate vehicles for protection department (Peculiar to CRNP)

The managements of the various parks are currently educating the surrounding communities on the need to conserve the resources of the parks. The Okwango Division of CRNP inaugurated a Village Integrated Rural Development Committee (VIRDC) in thirty-six support zone communities while conservation clubs in primary and secondary schools are formed. Also, the theatre group of the park produces series of drama in these support zone communities to generate conservation awareness. Furthermore, incentives were given to communities and these include roofing sheets, seedlings for planting as well as employment for indigenous.

In KLNP, conservation clubs are set up in primary and secondary schools around the park, while incentives like electricity is given to the people of Ibbi. Also, film shows, seminars, symposia, and the villages are often organized to sensitize the people on the importance of conservation. More than 50% are in support of Protected Area policy.

In OONP, enlightenment campaigns are often organized for the indigenous people, visits to village heads and chiefs are also carried out to educate them on the need to conserve the resources of the park. According to the three parks, the responses of the target groups have been positive with more than 60% in support of the policies.

Respondents that were in support of government policy agreed with the idea and proposals of government. They believed that their communities stand to gain a lot from the government

in the short or long run. But in the actual sense, these groups have not agreed to government terms because they often extract resources from the park for survival and they affirm that they have to do this because they do not have alternative respondents who are not in support of the policy believe that the government is doing them a harm by alienating them from their God given resources. This group showed their grievances by reacting against government policies. They even go to the extent of attacking park officials. A typical example is the case of George Ojo who was brutally murdered on OONP in 1991 (Park News, 1992).

Furthermore, the people's opinion about conservation and government policy affects conservation activities in these parks. Some of them agreed that wild animals as destructive elements in their farms, hence these animals will be killed at any time. Others believe that wildlife species are delicacies. For instance in Wula, Cross River State, Monkeys are delicacy, hence the people are appealing to government to give them substitute if they should stop poaching for monkeys.

The laws and policies should be reviewed to effectively regulate the use of biodiversity resources, encourage local or private sector participation in biodiversity resources development, and improve on public ethical standards (Adeola, 1991). Law enforcement in National Parks and other protected areas is very weak. Government should make provision for adequate surveillance in protected areas. Such facilities like vehicles, firearms, camping equipment, and attractive honourarium for protection staff are all needed for adequate law enforcement.

There is need to encourage traditional practices, customs and taboos which are in consonance with the ethics of conservation. According to Okediran (1995) such customs and practices should be given a place in policy formulation and implementation. Sustainable employment opportunities should be created for indigenous people, living in and around the enclave villages of the National Parks. The number of indigenes who enjoy employment from the park is very small. The government should create more jobs by introducing more schemes that will demand their labour in which a vast majority of indigenes can be involved.

Government should encourage domestication of wildlife species. This will assist in diversify the attention of the rural people from wildlife resources of the park. Other practices that should be encouraged include agro forestry and game ranching. Communities should be involved in policy making within the limits of convenience to resource conservation agenda, while benefits and incentives should be given to communities to compensate them for any form of wildlife damage to their farms. It is believed that if these recommendations are adhered to, there will be increase in wildlife population hence biodiversity loss will be reduced.

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**Table 1.** Staff strength and established decree in the national parks.

Park	Legal Document of Establishment	Staff Strength	Number of Protection Staff
KLNP	Decree 46 of 1999	236	68
CRNP	Decree 46 of 1999	169	34
OONP	Decree 46 of 1999	169	75

**Table 2.** Laws and international conventions operating in the national parks.

Park	Past Protection Laws	Present Protection Laws	International Convention
KLNP	Decree 46 of 1979, Decree 36 of 1991 Wild animal Law edict of 1963 amended in 1975	Decree 46 of 1999, Decree 11 of 1985	Convention on Intenational Trade In Endangered Species (CITES)
CRNP	Eastern Nigeria Forestry Ordinance CAP 55 of 1930, Decree 36 of 1991	Decree46 of 1999, Decree 11 of 1985	CITES
OONP	Wild Animal Preservation Law of 1916, Decree 36 of 1991	Decree 46 of 1999, Decree 11 of 1985	CITES

**Table 3.** Rate of arrest and aggregate of fine in kainji lake national park (1991- 2003).

Year	Number arrested	Number tried	Number jailed	Number discharged	Number fined	Aggregate of fine (N)
1991	172	35	2	15	33	31, 800.00
1992	112	60	7	13	40	71, 500. 00
1993	152	40	3	7	30	65, 000. 00
1994	75	30	4	2	27	45, 300. 00
1995	70	12	1	8	11	134, 000. 00
1996	81	51	3	6	42	175, 000. 00'
1997	129	84	5	2	65	286, 500. 00
1998	201	164	4	1	132	419, 200. 00
1999	372	250	5	13	210	799, 000. 00
2000	165	140	3	5	110	940, 000. 00
2001	229	185	5	3	152	1, 535, 500. 00
2002	140	95	2	5	84	1, 087, 500. 00
2003 Jan – June	66	50	1	3	41	320, 000. 00



**Table 4.** Rate of arrest and aggregate of fine in cross river national park (1991-2003).

Year	Number arrested	Number tried	Number jailed	Number discharged	Number fined	Aggregate of fine (N)
1991	-	-	-	-	-	-
1992	-	-	-	-	-	-
1993	-	-	-	-	-	-
1994	43	21	-	-	-	-
1995	31	15	-	-	-	-
1996	28	22	3	17	10	65,300:00
1997	20	15	1	11	9	52,200:00
1998	17	13	5	8	5	35,100:00
1999	15	14	2	10	6	83,300:00
2000	14	10	2	6	4	68,550:00
2001	10	08	1	5	4	71,000:00

**Note:** In CRNP, arrests started in 1994

**Table 5.** Rate of arrest and aggregate of fine paid in old oyo national park (1991- 2003).

Year	Number arrested	Number tried	Number jailed	Number discharged	Number fined	Aggregate of fine (N)
1991	-	-	-	-	-	-
1992	-	-	-	-	-	-
1993	17	4	-	-	4	2,000.00
1994	35	32	3	4	23	15,450.00
1995	95	76	2	3	71	67,300.00
1996	50	44	1	5	41	45,637.00
1997	41	37	5	2	35	43,500.00
1998	65	55	3	1	53	74,300.00
1999	32	29	2	2	26	38,700.00
2000	28	24	1	3	20	27,155.00
2001	21	20	3	2	14	21,400.00
2002	20	17	3	5	13	20,830.00
2003	23	20	2	1	18	20,322.00

**Table 6.** Offences committed rate in the national parks during study.

Park	Gathering	Poaching	Grazing	Farming	Fishing	Trespassing	Fire	Felling	Residing
CRNP	X	✓	X	X	X	X	✓	✓	X
KLNP	✓	✓	✓	✓	✓	✓	✓	X	✓
OONP	✓	✓	✓	✓	✓	✓	✓	✓	✓

X- People not often arrested. ✓ - People often arrested

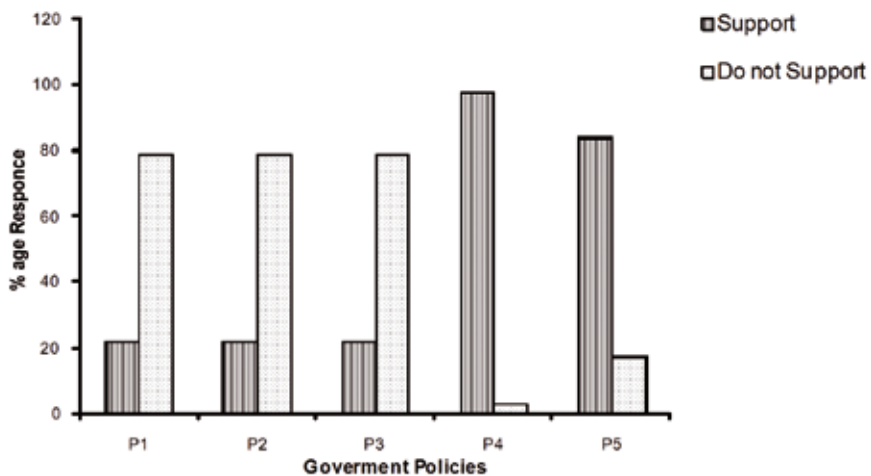
**Table 7.** People response on government policy in the study areas.

National Park	Df.	X <sup>2</sup>	Probability
CRNP	4	485.48	0.01
KLNP	3	20.41	0.01
OONP	3	13.95	0.01
Combination of the NPs.	3	355.44	0.01

Chi-square (X<sup>2</sup>) statistical Analysis:

Combined (CRNP, KLNP, OONP) Degree of freedom = 3

X<sup>2</sup> Value = 355.443, Probability = 0.01 (P < 0.01)



**Figure 1.** Component Bar Chart Showing Percentage Response of Respondent Toward Government Policies on CRNP.

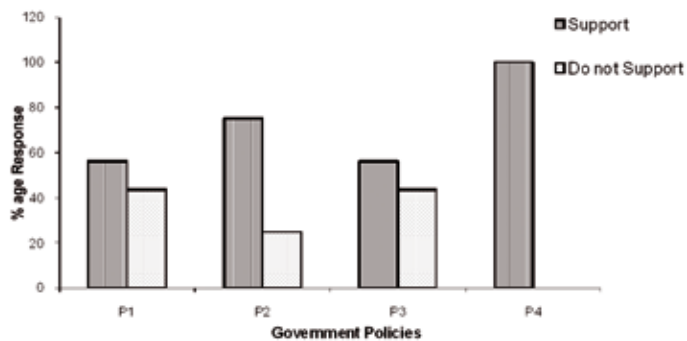


Figure 2. Component Bar Chart Showing Percentage Response of Respondent Toward Government Policies on KLNK.

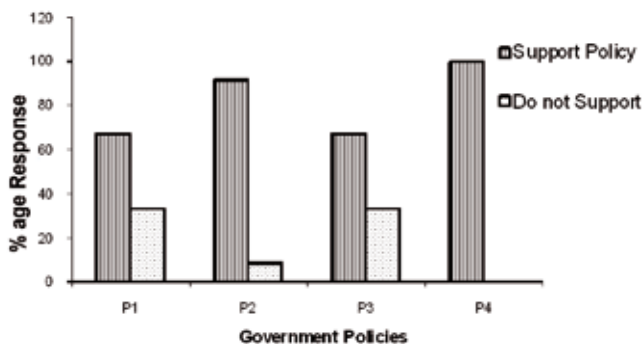


Figure 3. Component Bar Chart Showing Percentage Response of Respondent Toward Government Policies on OONP.

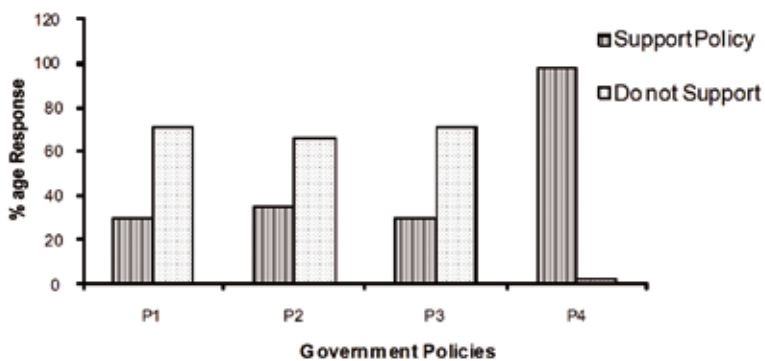


Figure 4. Component Bar Chart Showing Percentage Response of Respondent Toward Government Policies on CRNP, KLNK, and OONP.