

## IMPACT OF MAKURDI ZOOLOGICAL GARDEN AND MANATERIUM ON CONSERVATION EDUCATION IN BENUE STATE

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### ABSTRACT

*The impact of Makurdi Zoological garden on conservation education was elucidated from data collected by questionnaires, interviews, observations and review of stored records. Descriptive statistics (frequencies, percentages and tables) were used to analyse the data obtained. Out of 100 questionnaires administered, 90% and 9% of the respondents were students and teachers respectively. Electronic media (Radio and Television) and interactions with people who once visited the Zoological garden, were the main mode of education and information on the need to keep and maintain the Zoological garden for the purpose of ex-situ conservation. The Zoo was stocked with primates, birds, reptiles, carnivores and some rare ungulates. The Zoo reached its peak in 1991 with a visitors population of 14,844 and decline thereafter when funding was virtually withdrawn by the Government and animal population reduced drastically. This also affected the management and the attitude of the staff to work. At this point, the animals were at the receiving end and such animals as Hare, white nose monkey, Baboon, Rabbits, Crocodile, Manatee and Chimpanzee died.*

**Key words:** Conservation, Education, Impact, Makurdi, Zoological Garden.

### INTRODUCTION

here is consistent pressure on the fragile ecosystem by man due to his selfish interest which has several implications. If ecosystem destruction continues, important seed pollinating and dispersing species could actually vanish from earth (IUCN, 1980). About three quarters of the remaining plant and bird species are threatened and many of these are being endangered, (NCF, 2002). Moreso, (Raven, 1976) reported that the extinction of each tropical plant species potentially leads to the loss of another ten to thirty

insect species. Presently, about 30% of the bird species that are found in Nigeria are seriously threatened, (NCF, 2002). The endemic species such as Anambra Waxbill (*Estrilda caerulesceus*), Ibadan Malimbe (*Vidua charlybeata*) and its brood parasite, the rock fire finch (*Lagonostrica sanguinodorsalis*) are all threatened (NCF, 2002). This has brought losses to both people and nature. However, it is not too late to change course towards conservation.

According to Galey and Colebourn, (1990) conservation is for the people. But, this can only be realized if the people are well informed and understand the enormous benefits of conservation in their daily life. Furthermore, there is every need to incorporate institutions in creating awareness to ensure that the resources entrusted on us by the past generations are wisely utilized. If not with incidence of environmental problems such as deforestation, desertification, flooding, erosion, pollution (air, water, soil and noise); ozone layer depletion, drought and biodiversity imbalances, the life span of an average Nigerian who is already traumatized, depressed, brutalized and rejected by abnoxious economic reforms will further be in jeopardy (The Environment, 2004). In addition Orams in 1993 maintain that ecotourism should attempt to move tourist experiences beyond mere enjoyment to a more active role which incorporates learning, attitude and behavioural change towards conservation.

This study, therefore, attempts to explore the contribution of Makurdi Zoological garden towards conservation in Benue State.

## **MATERIALS AND METHODS**

### **STUDY AREA**

The Makurdi Zoological garden is situated in the Eastern part of Makurdi town. It is located within the Guinea Savanna zone between latitude 7<sup>0</sup>E and 75<sup>0</sup>N and longitude 80E and 80<sup>0</sup>N. It is also on the Southern bank of River Benue and 1.5 kilometers along Makurdi-Gboko express way. It is also half a kilometer off Makurdi-Gboko road into the land premises of the Benue State University, which is about 700 meters away from the main lecture halls. It covers about 0.32km<sup>2</sup> of land. Benue is bounded in the East by Enugu State, South by Ebonyi/Cross River States/Cameron Republic; West by Kogi State and North by Nassarawa/Taraba States. The state has an estimated population of about 4.2 million people with three Universities, two Polytechnics, two Colleges of Education and several Secondary and Primary Schools.

Data collections for this study were through oral interviews, observations, review of records/files and structured questionnaires.

## RESULTS

**Table I:** DEMOGRAPHIC STATISTICS OF VISITORS IN MAKURDI ZOOLOGICAL GARDEN

VARIABLES		FREQUENCY	PERCENTAGE
		DISTRIBUTION	(%)
GENDER	Male	8,168	68.0
	Female	3,843	32.0
	<b>Total</b>	<b>12,012</b>	<b>100</b>
AGE (YRS)	10-20	7,327	61.0
	21-30	3,603	30.0
	31-40	720	6.0
	40 and above	360	3.0
	<b>Total</b>	<b>12,012</b>	<b>100</b>
OCCUPATION OF RESPONDENT	Student	10,810	90.0
	Teacher	1,081	9.0
	Researcher	120	1.0
	<b>Total</b>	<b>12,012</b>	<b>100</b>
EDUCATIONAL BACKGROUND	Nursery	1,321	11.0
	Primary	2,642	22.0
	Secondary	4,204	35.0
	OND/NCE	2,762	23.0
	HND/University	1,081	9.0
<b>Total</b>	<b>12,012</b>	<b>100</b>	

**Source:** Makurdi Zoological Garden and Manatarium (1984).

Table I shows that 68% of the respondents are males while 42% are females. The majority (61%) of the respondents fall within the age range of 10-20 years. The result further showed that majority (74%) are Benue State residents. Most (90%) of the respondents are students while the lowest

failed into category of researchers (1%). The educational level of the respondents are as follows: Secondary School (35%); OND/NCE (23%); Nursery School (11%); Primary School (22%); HND and above (9%).

**TABLE 2:** EXPERIENCE OF EDUCATIONAL VISITORS TO MAKURDI ZOOLOGICAL GARDEN

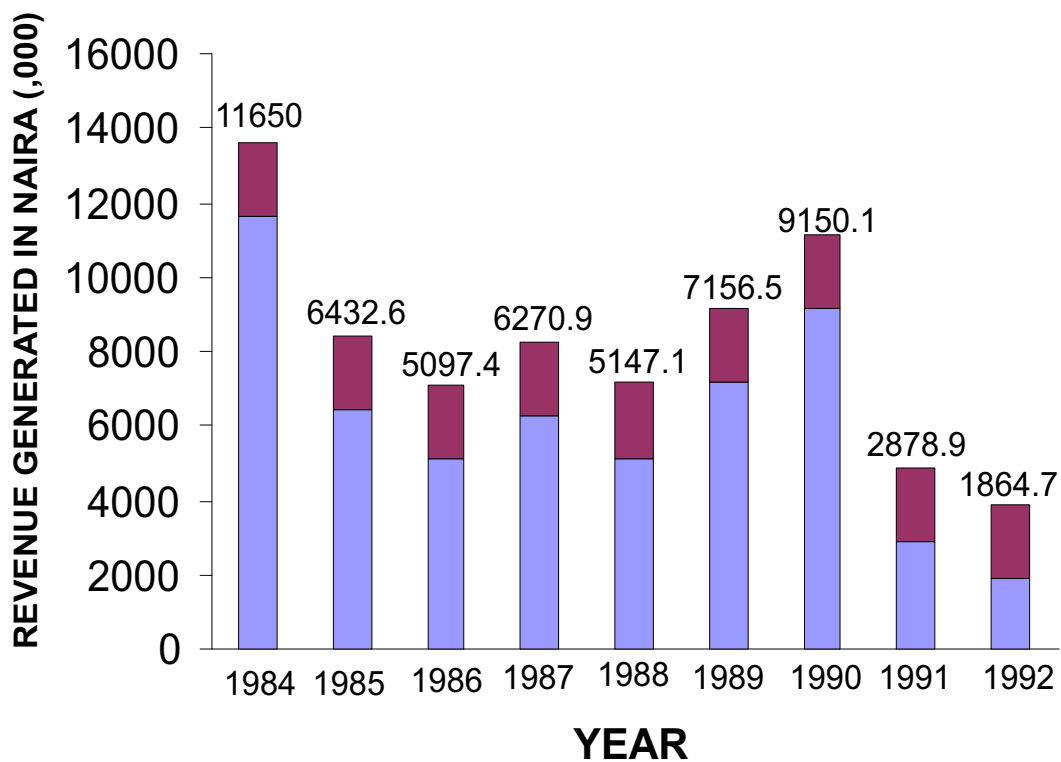
	<b>VARIABLES</b>	<b>FREQUENCY DISTRIBUTION</b>	<b>PERCENTAGE (%)</b>
PURPOSE	Know about nature	4,804	40.0
	See animals	8,168	68.0
	Learn	9,489	79.0
	Pleasure	4,284	35.0
HOW DO YOU KNOW OF THE GARDEN	Teachers	3,723	31.0
	Students	5,285	44.0
	Parents	1,681	14.0
	TV/Radio	2,522	21.0
WHO SPONSORED YOUR VISIT	Teacher	0	0.0
	School Mgt	1,321	11.0
	Contribution	10,690	89.0
WHAT DID YOU ENJOY MOST	Children playing ground	840	7.0
	Seeing animals	8,648	72.0
	Lecture	1,441	12.0
	Natural Environment	1,081	9.0
WILL YOU LIKE TO COME AGAIN	YES	1,129	94.0
	NO	120	1.0
	Don't know	600	5.0
MOVEMENT IN THE GARDEN	Move alone	1,441	12.0
	Move with guide	9,729	81.0
	Don't know	840	7.0

**Source:** Makurdi Zoological Garden and Manatarium (1984).

Table 2 above displayed respondents' experience. About 18% and 79% of the respondents came to see animals and/or to learn respectively. Most of the respondents know of the park through students (44%); teachers (31%) and electronic media (21%). Majority (89%) of the respondents sponsored their tour through contributions. Most

(72%) of the respondents indicated that the peak of their enjoyment was seeing animals. However, about 94% of the respondents will like to visit Makurdi Zoological Garden again while 1% will not repeat the visit. Majority (81%) of the respondents prefer moving around the garden with tour guide.

### REVENUE GENERATED IN MAKURDI ZOOLOGICAL GARDEN



**Fig I:** Revenue generated in Makurdi Zoological garden 1984-1992 (January-April only).

**Source:** Makurdi Zoological garden and Manatarium as documented in the Ministry of Agriculture and Natural Resources (1993).

From the above figure, Revenue generated failed from N11,650,000 in 1984 to partly N1,864,000 (January-April) in 1992.

Also, in figure 2 below there was a systematic decline in the number of visitors to the Makurdi Zoological garden between 1988 and 1991.

### Adult and Children visitors to Makurdi Zoological Garden

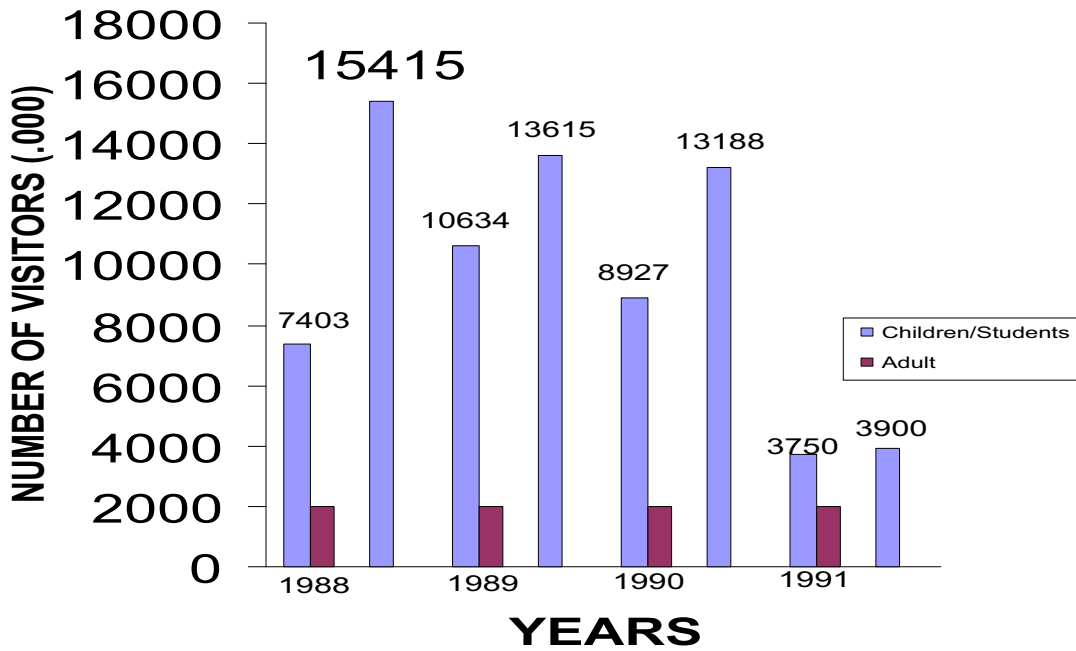


Fig 2: Adult and children/students visitors to Makurdi Zoological garden (1988 – 1991).

Source: Makurdi Zoological Garden and Manatarium (1991)

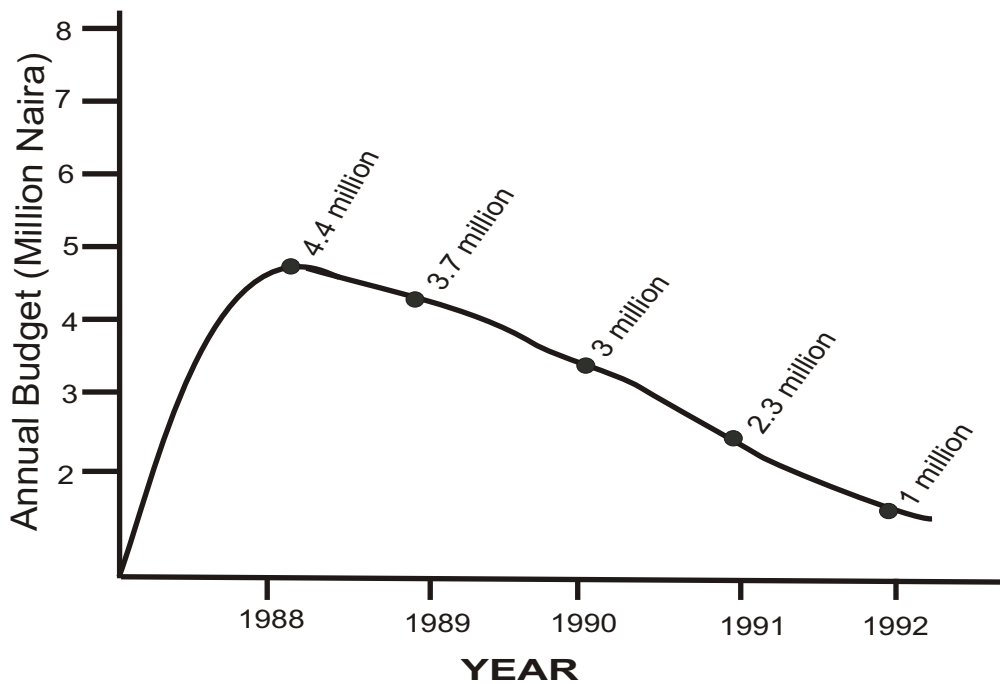


Fig 3: Showing budgeting allocation to Makurdi Zoological garden (1988-1992).

Source: Department of Statistics, Ministry of Finance, Makurdi (1993).

From the above figure 3, there was a gradual decline of revenue allocation to the zoological garden.

## DISCUSSION

Every specie has taken millions of years to evolve, but many have disappeared. Yet others are about to vanish from planet earth unless mankind stops being a predator and become a protector, (IUCN, 2002). In this direction, one of the top priorities of the Makurdi Zoological garden is to make mankind a protector through conservation education. This is to enable each generation to learn for itself the need for conservation.

Quite a large numbers of people visit the garden to learn and appreciate the good work of nature. A total number of 16,152; 68,096; 33,872 and 36,587 children visited the park in 1988, 1989, 1990 and 1991 respectively. Also, 3,844; 6,339; 11,126 and 14,838 in the same period visited the garden by visitors from Benue State and beyond. Majority of these are children and teachers from various school of learning to satisfy their natural curiosities. It is what we see that we can appreciate, most visitors emphasized. Makurdi Zoological Garden merits the reserve status because of its natural vegetation, topographic and birds particularly weaverbirds that provide an organized 'noise'. Its existence must also be justifiable economically. However, the state Government transferred the ownership of the park

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to the Benue State University for better management and sustainability in the year 2000. This became important because the Makurdi Zoological garden which has an increasing visitor's attendance from early 80s began a systematic decline in both the visitors attendance and high rise in death toll of the public viewing animals. The two is compounded by the lack of funding from the State Government. Regrettably, the Benue State University could not hold the proper management of the garden and now has been retrieved by the State Government. But, the lack of funding and proper management still leaves the garden moribund.

## CONCLUSSION

The contribution of the Makurdi Zoological Garden is very evident in the campaign for conservation of the exhaustible, beautiful and historic resources of nature for the needs of future generations. This priority should be sustained with intensified efforts. This is because there is no amount of conservation effort that would be too much. Since whatever that is destroyed is lost forever.

Makurdi, the state capital is in serious need of a functional recreational centre. So, rehabilitation and resuscitation of the garden have become very important in the eye of the people. This is for the preservation of our natural resources for future use.

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