



ASSESSMENT OF WILDLIFE CONSERVATION AWARENESS LEVEL AMONG SECONDARY SCHOOL STUDENTS IN IMO STATE NIGERIA

*Okeke A.N.; Egbe, V.M; Onyema M.C. and Oruh K.E.

Department of Forestry and Wildlife Technology, Federal University of Technology P.M.B 1526
Owerri, Imo State, Nigeria

*Corresponding Author: angela.okeke503@gmail.com; +234 806 069 0465

ABSTRACT

This study aims at evaluating the level of wildlife conservation awareness among senior secondary school students in three distinct secondary schools, located at Owerri West Local Government Area of Imo State, Nigeria. The schools include: Ihiagwa secondary school (ISS), El-Betty Model secondary school (EMSS) and Nekede secondary school (NSS). Thirty copies of structured questionnaire were randomly administered to each school, given a total of 90 copies. Data were collected on personal characteristics of respondents (age, sex, and class), conservation awareness and level of awareness; and was analyze based using descriptive statistic. The results showed that the highest respondents (73.3%) fall within the age bracket 13-16 years old. Fifty-seven-point eight percent (57.8%) were females while (42.2%) were males. (37.8%) were from senior secondary one (SSI) while (31.1%) were from both senior secondary two (SS2) and senior secondary three (SS3) students, respectively. The conservation awareness result revealed that, majority (>70%) of the respondents were not aware of wildlife conservation ($P<0.05$) while (<30%) were aware ($P>0.05$). Those who are aware are not practicing wildlife conservation. This study recommends that conservation awareness education, mostly practice should be incorporated into the secondary school curriculum; to start on time to teach young children their responsibilities regarding wildlife conservation. Also, to create conservation awareness in all levels of education, through outreach, posters, news broadcast, interviews, and public lectures.

Keywords: Wildlife Conservation, Awareness, Curriculum, Outreach, Young children, Secondary school.

Correct Citation of this Publication

Okeke A.N.; Egbe, V.M; Onyema M.C. and Oruh K.E. (2022). Assessment of wildlife conservation awareness level among secondary school students in Imo State Nigeria. *Journal of Research in Forestry, Wildlife & Environment*, 14(1): 53 - 59

INTRODUCTION

Conservation is an effort to maintain and use natural resources wisely (IUCN, 2010). It is an effort to ensure that, those resources will be available for future generations (Ijeomah *et al*, 2012). Hence, wildlife conservation is meant to exploit wild populations reasonably so that the resources will be available for future generations (FAO, 2008). According to Ayodele and Lameed (1990) and Aina *et al*, (1992), the world is facing a biodiversity crisis, hence schools, teachers, and parents are being urged to prepare students to face the real-life issues they will routinely encounter in

maintaining wildlife sustainably, manage the biosphere and integrate biodiversity conservation with other societal goals. The need for conservation awareness or education among juveniles is necessary to teach them on time about conservation.

Conservation awareness is a process of disseminating information and knowledge about the sustainable use of wildlife resources and the ability to evaluate such information or knowledge for the benefit of mankind, wildlife, and the environment (Chinedu, 2008). It aims to provide learners with the opportunity to gain

sensitivity to wildlife and their environment (Nchor and Ogogo, 2012). It means to impart knowledge and experience to people. Conservation awareness assists communities to solve the problems surrounding the sustainable use of wildlife (Ibimilua, 2014). This will help them to acquire a set of values and positive attitudes towards conservation and to obtain the skills required to identify and solve wildlife-related problems (Nest, 2015).

The motivation and ability to participate in the conservation of biodiversity lie on the level of individual awareness. Conservation awareness should be considered to include, not just formal education and training, but also public awareness-raising (e.g. posters and media campaigns), school environmental clubs, and transfer of indigenous knowledge from elderly people to young ones (Jacobson *et al.*, 2006). The ultimate goal of conservation awareness, whether it is formal or non-formal is to sensitize and create a positive attitude among people to use the knowledge they have acquired through various means of information dissemination to protect their environment (Agboola 2014). Therefore, assessing young people's perception and level of awareness toward conservation, in general, can provide important insight into future wildlife conservation and management.

MATERIALS AND METHODS

The Study Area

The research was carried out in three Secondary Schools, namely Ihiagwa Secondary School (ISS), El-Betty Model Secondary School (EMSS), and Nekede Secondary School (NSS), all located at Owerri West Local Government Area of Imo State, Nigeria. This Local Government Area is located at the Rain Forest zone, about 120km north of the Atlantic coast. It has an area of about 295 km² and a population of about 99,265 at the 2006 census (Population Development Authority (P.D.A), 2014).

Geographically, Owerri West is located between latitude 5°43'26" N and 6°98'41" N and longitude 6°25'56" E and 6°58'48" E, with an altitude of 720m above sea level. The temperature of the study area ranges from 23-37°C with a relative humidity of 90-100% in the rainy season and 70-80% in the dry season. The area is also characterized by high rainfall with an average of 3,000 mm per annum being recorded, while the dry season, lasts for up to four (4) months (December to March). The total population of the three schools was 941 of which ISS was 310, EMSS, and NSS have a population of 314 and 317, respectively.

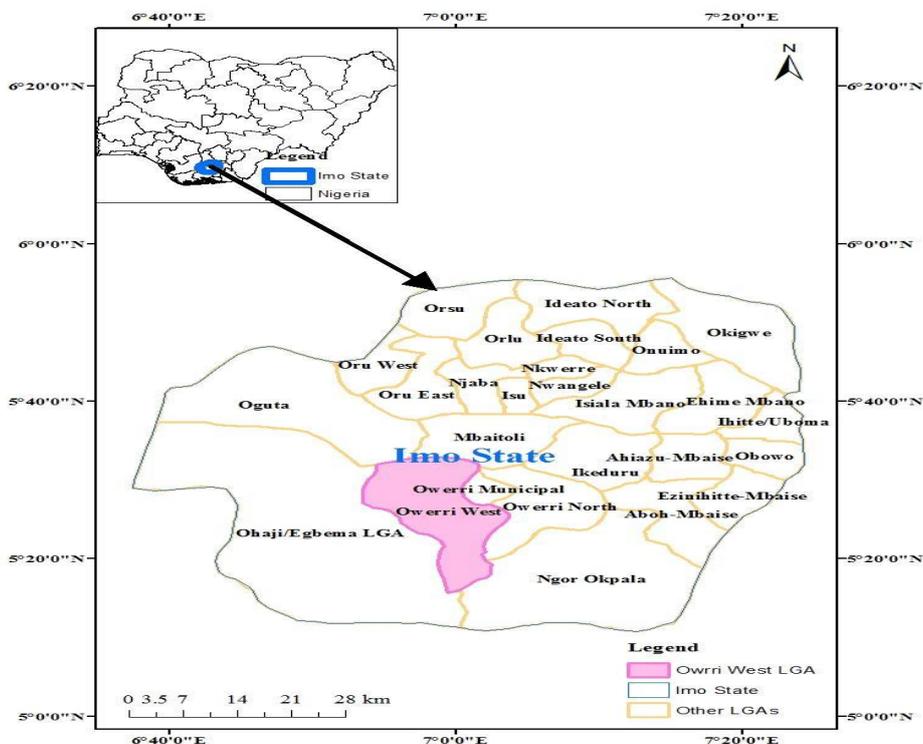


Figure 1: Map of Nigeria showing Owerri West Local Government Area

Source: Adesoji and Ohwo (2015).

Data collection and analysis

Ninety copies of questionnaires were administered to the students (respondents) in

the three Secondary Schools; thirty copies were distributed to each school. Ten percent of from each school were sampled, because the schools have almost equal number of students; the total population was 941 students. Initially, a reconnaissance survey was conducted in these study areas as a guide during administered of structure questionnaires as described by Verkevisser *et al.* (1991). Random sampling technique was used in distribution of the questionnaire to the selected thirty students in each School, given a total of ninety respondents. These three schools were visited at different weeks, on Mondays and Wednesdays within two months. Efforts were made to restrict the respondents from conniving in answering the questions. This was achieved by instructing the respondents to answer it like an examination question, strictly filling it independently, and return it at once. Also, we implore their teachers to assist in making their students answer those questionnaires independently, which they did gladly. In the end, all the questionnaires (100%) were collected, without any loss (0%). Information gathered from the respondents include: personal characteristics of the respondents (age, sex, and class), questions on conservation awareness in form of a Likert scale which varies from {Strongly Agree (SA), Agree (A),

Disagree (D), and Strongly Disagree (SD)}. The data gathered were analyzed using descriptive statistic; and results were presented in tables and graphs.

RESULTS

The result on demographic characteristics of the respondents is shown in table 1. Most of the respondents (73.33%) were in the age bracket 13-16 years old; which was followed by those in the age bracket 17-20 years old (14.44%). This could be because children go to school nowadays at a very early age, the age of adolescence, the prime of their youth. (8.89%) of respondents falls within the age bracket 9-12, while (3.33%) were >21 years old and none of the respondents were 6-8 years old. It might be because they were younger children and have not reached the age of secondary school. However, (58.78%) of respondents were females while (42.22%) were males. This could be attributed to the fact that; females go to school in Owerri West more than males. Senior secondary school students (SSS1) that responded were the highest (37.78%), while senior secondary school two (SSS2) students and senior secondary school three (SSS3) students had an equal number of respondents (31.11%).

Table 1: Demographic characteristics of Respondents

| Variables | ISS | EMSS | NSS | Frequency | Percentage (%) |
|-----------|-----|------|-----|-----------|----------------|
| AGE | | | | | |
| 6-8 | 00 | 00 | 00 | 00 | 00 |
| 9-12 | 07 | 00 | 02 | 09 | 8.89 |
| 13-16 | 20 | 22 | 23 | 65 | 73.33 |
| 17-20 | 03 | 06 | 04 | 13 | 14.44 |
| >21 | 00 | 02 | 01 | 03 | 3.33 |
| SEX | | | | | |
| Male | 12 | 17 | 09 | 38 | 42.22 |
| Female | 18 | 13 | 21 | 52 | 57.78 |
| CLASS | | | | | |
| SSS1 | 10 | 13 | 11 | 34 | 37.78 |
| SSS2 | 12 | 07 | 09 | 28 | 31.11 |
| SSS3 | 08 | 10 | 10 | 28 | 31.11 |

Key: ISS = Ihiagwa Secondary School, EMSS = El-Betty Model Secondary School, NSS = Nekede Secondary School

Result on level of awareness and knowledge of wildlife conservation in table 2 indicated that most of the respondents (66.67%) were not taught or have knowledge on wildlife conservation; and the respondents don't take

part in biodiversity conservation. Few of the respondents (28.89%) reported that, they had information on the importance of wildlife conservation; however, they thought that wildlife conservation is meant for adults to

practice. (03.33%) of respondents were not aware of wildlife conservation but they were practicing it while the least respondents

(01.11%) of respondents were neither aware nor practicing wildlife conservation.

Table 2: Awareness/knowledge and practicing of wildlife conservation

| Response | ISS | EMSS | NSS | Total | Percentage (%) |
|----------------------------------|-----|------|-----|-------|----------------|
| Unaware of wildlife conservation | 14 | 22 | 24 | 60 | 66.67 |
| Aware but not practicing | 14 | 06 | 06 | 26 | 28.89 |
| Not aware but practicing | 01 | 02 | 00 | 03 | 03.33 |
| Not aware, not practicing | 01 | 00 | 00 | 01 | 01.11 |

Key: ISS = Ihiagwa Secondary School, EMSS = El-Betty Model Secondary School, NSS = Nekede Secondary School

Result on causes for the decrease of the wildlife species population commonly observed in the study area indicates (table 3) that, most of the respondents (82.22%) reported daily hunting as the major reason for the declining on the population of wildlife. This could be due to the rate of unemployment, poverty or even abuse of nature without considering the effects to mankind. Therefore, the struggle for survival

was laid on the indiscriminate hunting of juvenile, young and adult fauna as food among the dwellers in the study area. Few of the respondents (7.78%) reported that, wildlife population could be decreasing because of habitat destruction and climate change respectively. The least of respondents (02.22%) said that decrease in wildlife population was due to low reproduction.

Table 3: Reason for the decrease in wildlife population

| Response | ISS | EMSS | NSS | Total | Percentage (%) |
|---------------------|-----|------|-----|-------|----------------|
| Daily hunting | 22 | 27 | 25 | 74 | 82.22 |
| Habitat destruction | 04 | 00 | 03 | 07 | 07.78 |
| Low reproduction | 01 | 00 | 01 | 07 | 02.22 |
| Climate change | 03 | 03 | 01 | 07 | 07.78 |

Key: ISS = Ihiagwa Secondary School, EMSS = El-Betty Model Secondary School, NSS = Nekede Secondary School

Table 4 shows the result on the respondents' perception toward finding a lasting solution against poaching of fauna species in the study area. Majority of the respondents (63.33%) reported that, there should be a ban on any illegal felling of trees and poaching of wild

animals. (24.44%) of respondents agreed that payment of fine should be a better measure to stop wildlife exploitation. Few respondents (07.785) and (04.44) agreed on re-afforestation and afforestation respectively in order to solve wildlife exploitation problems.

Table 4: Percept Solutions against Exploitation and Poaching of Wildlife Species in the Study Area

| Response | ISS | EMSS | NSS | TOTAL | Percentage (%) |
|------------------|-----|------|-----|-------|----------------|
| Barn on poaching | 14 | 21 | 22 | 57 | 63.33 |
| Payment of fine | 10 | 04 | 08 | 22 | 24.44 |
| Re-afforestation | 03 | 04 | 00 | 07 | 07.78 |
| Afforestation | 03 | 01 | 00 | 04 | 04.44 |

Key: ISS = Ihiagwa Secondary School, EMSS = El-Betty Model Secondary School, NSS = Nekede Secondary School

Table 5 of this result showed the perception of the respondents on wildlife conservation

awareness in the study area. Based on the result majority of the respondents (63.33%) strongly

agreed that, over pollution of the environment can bring about the extinction of fauna species; this was followed by (25.56%) who strongly agreed, (06.66%) strongly disagreed, while (04.44%) disagree. On the other hand, majority of the respondents (51.11%) strongly agreed that it is not wrong to hunt wild animals for food. (23.33%) of respondents also agreed on the same measure while the least respondents

(13.33%) and (12.22%) strongly disagreed and disagreed respectively. More so, (31.11%) of respondents strongly disagreed that participation in afforestation programs is a mere waste of time and energy, (28.89%) of respondents also disagreed. (21.11%) of respondents agreed while (18.89%) strongly agreed.

Table 5: Perception of the Respondents on Wildlife Conservation Awareness

| Response | ISS | EMSS | NSS | Frequency | Percentage (%) |
|--|-----|------|-----|-----------|----------------|
| Over pollution of environment can bring about wildlife extinction | | | | | |
| Strongly agree | 17 | 23 | 17 | 57 | 63.33 |
| Agree | 07 | 07 | 09 | 23 | 25.56 |
| Disagree | 03 | 00 | 01 | 04 | 04.44 |
| Strongly disagree | 03 | 00 | 03 | 06 | 06.66 |
| It is not wrong to hunt animals for food | | | | | |
| Strongly agree | 18 | 17 | 11 | 46 | 51.11 |
| Agree | 08 | 04 | 09 | 21 | 23.33 |
| Disagree | 03 | 04 | 04 | 11 | 12.22 |
| Strongly disagree | 01 | 05 | 06 | 12 | 13.33 |
| Participation in Afforestation programs is a mere waste of time and energy | | | | | |
| Strongly agree | 03 | 03 | 11 | 17 | 18.89 |
| Agree | 04 | 06 | 09 | 19 | 21.11 |
| Disagree | 13 | 09 | 04 | 26 | 28.89 |
| Strongly Disagree | 10 | 12 | 06 | 28 | 31.11 |

Key: ISS = Ihiagwa Secondary School, EMSS = El-Betty Model Secondary School, NSS = Nekede Secondary School

DISCUSSION

The unawareness of respondents could be to the fact that, wildlife conservation has not been on the secondary school curriculum to be taught in all the secondary schools in Imo State. Secondary school students are supposed to be knowledgeable about wildlife conservation and the penalties attached to violators of the laws conserving wildlife. This result revealed why indiscriminately hurting of wildlife species is so rampant in the area. However, few of the respondents (3.33%) reported not having knowledge or awareness of wildlife conservation in the study area. Those respondents without the knowledge or awareness on wildlife conservation if not given sensitized, such persons could be a threat to wildlife conservation efforts in the study area. Their response implied that, it is likely for people in the study area to commit an offense (such as killing or maltreating wildlife) without knowing that such an act is a serious offence. Experimental birds and urban wildlife have

been caught or killed on different occasions without any reason. This finding has proofed the need to adopt different means of awareness and channels to enlighten the public on wildlife conservations. The least percentage of the respondents (1.11%), unfortunately, answered that it is their right to kill wildlife.

The respondents reported that, they have the knowledge on wildlife conservation; however, wildlife species are their heritage given by nature for man's utilization or consumptions. Thus, it may be difficult for such respondents to stop poaching at all times or even at gunpoint. Though, such respondents were few (1.11%); which implied that, their number at present cannot cause much dynamic in the wildlife population or bring about the extinction of any species of animals.

These could be proofed by the rate at which modern technologies and urban construction have made much wildlife lose their habitat.

This is true because individuals, groups, and organizations keep on buying land and clearing forests for one project or another. New companies are being built where the forest was before. This practice of development can destroy wildlife habitats and bring about a decrease in the wildlife population by slowing the rate of their reproduction. This statement might be a result of some factors that disturbs wildlife. For instance, according to (Ijeomah, *et al*, 2005) crocodile finds it difficult to reproduce where there is noise pollution. The least number of the respondents (2.22%) reported that, wildlife species are decreasing due to climate change. The respondents also report the change in weather patterns like hot climate, seasonal differences have made the animals uncomfortable in their habitat. The nature of this disturbance can bring about diurnal migration (Koenig *et al*, 2002); the faunal animals can change position at any time, either within or outside its habitat.

The placing of ban on killing of wild animals will help to conserve flora and fauna species in the study area. Twenty-four-point forty four percent (24.44%) of the respondents reported that, there should also be strict fines for offenders. This perception on finding a lasting solution to sustainable wildlife conservation could be a good measure (if such does not exist) to curtail the illegal destruction of biodiversity habitats in the study area. That is why Ijeoma *et al* (2005) reported that, "National wildlife law in Nigeria is outdated; imagine penalizing a poacher of elephant less than hundred Naira". It means that there is no serious penalty for exploitation and poaching of wildlife; that is one of the reasons people indiscriminately exploit biodiversity without the mindful of the effects of their activities on the wildlife and their habitats.

Few of the respondents (7.78%) reported that, the solution to mitigate poaching and wildlife exploitation is to re-plant the number of trees

that had been felled; and practice domestication in the case of wildlife. Other respondents (4.44%) reported that, more forest should be established to achieve sustainable biodiversity conservation in the study area.

It has been reported in previous work that pollution like noise, water, and air can affect wildlife (Reznick and Ghilamer, 2001). Fifty one point eleven percent (51.11%) of the respondents strongly agreed that, it is not wrong to hunt fauna species for food, (23.33%) agreed, (12.22%) disagreed while (13.33%) strongly disagreed. The least number of respondents (18.89%) strongly agreed that participation in afforestation programs is a mere waste of time and energy, (21.11%) agreed, (28.89%) disagreed while the highest respondents (31.11%) strongly disagreed.

CONCLUSION

This study has shown that secondary students are not fully aware of wildlife conservation and its practice in the study area. It calls for more effort to inculcate into future generations the need to preserve our biodiversity; also, there is the need to adopt different means of awareness and channels to enlighten the public on wildlife conservations. The least percentage of the respondents (1.11%), unfortunately, answered that it is their right to hurt wildlife; though their number at present cannot cause much dynamic in the wildlife population or bring about the extinction of any species of animals.

Based on this finding, it is recommending that conservation awareness education should be incorporated into the secondary school curriculum, to start on time to teach youth the need for wildlife conservation. Also, to create conservation awareness in all levels of education, through outreach, posters, news broadcast, interviews, and public lectures. This will enhance the importance of wildlife and reduce illegal activities by future generations.

REFERENCES

- Adesoye, B.M (2006): Use of indigenous conservation by women in Nigerian rural communities. *Indian Journal of traditional knowledge*, 8(2):287-295
- Agboola O. S (2014): Environmental Education and Public Awareness. *Journal of Educational and Social Research*, 4(3): 333 - 338.
- Aina, T. A., and Salau, T. A. (1992): The Challenge of Sustainable Development in Nigeria, Nigeria Environmental Study/Action Team, Ibadan, 247 pp. Anderson.
- Ayodele, I. A., and Lameed, G. A. (1999): Essentials of Biodiversity Management. The current status of biodiversity management. *Powerhouse Press and Publishers, Ibadan, Nigeria* pp 74.
- Chinedu, C. A (2008): Environmental education awareness of attitudes of secondary school students in Owerri Education Zone, Imo state. Unpublished

- M. ED. The thesis of the Department of Science Education, UNN.
- FAO. (2008): Food and Agricultural Organization Report Retrieved on April 27,2013,from <http://www.fao.org/docrep/004/ab592e/AB592E02.htm> 27/04/2013.
- Ibimilua, H.O., (2014). Impact of conservation on the environment. *Research Journal of Agriculture and environmental management*, 2(11): 332- 340.
- Ijeomah, H.M., Ayodele, I.A., Alarape, A.A, and Edit, D.I. (2005b): Contributions of Jos Wildlife Park towards conservation education in Plateau State. *Journal of Environmental Extension* Vol.5,(1)70–76,2005.
- IUCN/UNEP/WWF(1980):World Conservation Strategy: Living Resources Conservation for Sustainable Development, Gland, Switzerland.
- Ijeomah, H. M., Augustine, U. O., &Damilola, O. (2012) Analysis of Poaching Activities in Kainji Lake National Park of Nigeria. *Environment and Natural Resources Research*. 3 (1): 1927- 1949
- Ijeomah H.M., Ayodele I.A., and Alarape, A.A. (2005): Tourism and Environmental Challenges in Jos Wildlife Park. Ibadan *Journal of Agricultural Research* (IJAR) 1 (2): 47 – 55.
- IUCN (2010), International Working Meeting on Environmental Education in the School curriculum, Final Report. Tech, rep, IUCN. Available on www.IUCN.org
- IUCN/UNEP/WWF (2009): World Conservation Strategy: Living Resources Conservation for Sustainable Development, Gland, Switzerland
- Jacobson, S., McDuff, M., and Monroe, M. (2006). Conservation Education and Outreach Techniques. *Oxford Biology Journal*, 123-132. Oxford, UK.
- Koenig Shine R., Shea G. (2002). The danger of life in the city: pattern of activity, injury, and mortality in suburban lizards (*Tiliqua crinoids*). *Journal of Herpetology*, 36:62-68.
- Nchor and Ogogo, (2012). Nigeria National Biodiversity Strategy and Action Plan (NBSAP). (2007). Retrieved December16, 2013 from www.cbd.int/doc/world/ng/ng-nbsp-01-en.
- NEST, (2015): Threatened Environment: A National Profile. Nigerian Environmental Study/Action Team, Ibadan, 288 pp.
- Population Development Authority (2014). Owerri West Local Government Area of Imo state Nigeria.
- Reznick D.N, and Ghalamber C.K. (2001). The population ecology of contemporary adaptations:what empirical studies reveal about the conditions that promote adaptive evolution. *Genetica* 112/113: 183 – 198.
- Verkevisser C.M., Pathmanathan I., and Brownlee A. (1991). Designing and Conducting Health Systems Research Projects. IDR, Ottawa, Canada/WHO, Geneva. Pp56-62.