

**Environmental Deforestation and Bio-diversity Loss in Southern Education Zone,  
Cross River State**

**By**

**Dr. Etan, Michael Obun**

Department of Environmental Education

Faculty of Education

University of Calabar, Calabar

[Mickkyetan9@gmail.com](mailto:Mickkyetan9@gmail.com)

**07038847618;**

**Oham, S. Oham**

Department of Environmental Education

Faculty of Education

University of Calabar, Calabar

[Ohamb4reai@gmail.com](mailto:Ohamb4reai@gmail.com)

**08063534490**

**&**

**Mrs Mirian Akpono Egere**

Institute of Education

University of Calabar, Cababar.

[egeremirian@gmail.com](mailto:egeremirian@gmail.com)

**08039533364**

**ABSTRACT**

*This study examined environmental deforestation and biodiversity loss in southern educational zone, Cross River State Nigeria. To achieve the purpose of this study, one research question was raised and one hypothesis was formulated and tested at 0.5 level of significance. The study adopted ex-post facto research design. The population of the study comprised (806) of respondent of male and female from the study area in Southern Educational Zone, Cross River State. A sample of 403 respondent was used for the study. The instrument for data collection was 12 item questionnaires. The instrument was titled: Environmental Deforestation and Bio-diversity loss in Southern Educational Zone Questionnaire (DBLSEZQ) from the administered questionnaire, data was organized and analyzed using one –way Analysis of variance (ANOVA) The result obtain from the result revealed that; Environmental deforestation significantly influence Bio-diversity loss in Southern Educational Zone in Cross River State. Based on this result, it was recommended among others. There is need for afforestation in both rural and urban areas, and there should be environmental awareness to promote Bio-diversity conservation and protection.*

**Keywords:** Environmental, Deforestation, Bio-diversity, Loss.

**Introduction**

Bio-diversity is important to man and other forms of life, likewise: the abundance of nature are of paramount importance to the continual existence and survival of man. Nevertheless, the care for the environment and the biological diversity is grossly inadequate. Biodiversity of the environment are threaten by natural and most especially human factors. Wahab, Alarage & Ayodele (2015). Since the Earth summit in RIO 1992 the loss of Bio-diversity has been one

of the core environmental issues in the inter-governmental fora, schools and the media, reasons being that humans have become more of predators rather than the protectors of the Biodiversity; and has thoughtlessly destroyed the natural landscape through large-scale logging, mechanized family, mining/quarrying activities, unsustainable fishing, bush burning and game hunting; Ajake and Eja (2012) observed that in Cross River State farm, grazing, hunting, bush burning, exploitation for variety of products ,industrialization, urbanization and infrastructural development are still carryout at an unprecedented rate. Lise (2000) observed that the type of environment that was obtained some years age are no longer available because of anthropogenic factors such as farming, bushing burning, logging, overgrazing and exploitation of forest resources.

Biodiversity plays a significant role in the social, economic, cultural and political aspect of any nation. It is a major source of food; Nutrient, income, constructions, utensils and transport. Also it is a good source of employment, It provides materials and facilities for medicines; Eco tourism and tradable goods that forms the basics for income earning opportunities. The survival and continual existence of man in the environment depends on the presence of biological diversities and their habitants. Paul & Paul (2011) opined that Bio-diversity is the key parts of the ecological balance that helps the plant to function. Bio-diversity guarantee the supply of biological resource, protection of habitats and species, as well as the maintenance of the hydrological cycle. According to Ajibade(2002) deforestation has cause biodiversity in Nigeria and Africa in general. (Hunter, hommit, bates, Belson and Warner 2005) Medugu(2010) observed that in spite of its importance, the natural tropical high forest has continued to diminish rapidly in Africa content, resulting in dwelling sustainable forest management and that Nigeria could face the possibility of timber and fuel, wood security toward the end of the country.

The benefits of Biodiversity is multi-dimensional. Biological diversity helps in the regulation of fresh water, food, fuel, fiber, wood, nutrients, as well as climate. It has cultural, spiritual and recreational value. It is useful in maintaining the life system of the biosphere. Bisong (2001) noted that conservation practices all over the world are changing from traditional management approach with emphasis on tree to managing natural resource in a way that ensures greater flow to all stakeholders especially local communities. Ajibade also predicted that within the next 50 years unless adequate measures are taken, most humid tropical forest land area in Africa could be transform into none productive land and the deterioration of the savannah into a desert will be accelerated

Given the multi-dimension usefulness of biological diversity and the unprecedented rate at which biodiversity is reducing in the study area, drastic precautions are required in other to save the Ecosystem from further destruction. It is against this background that this study sought to investigate the influence of environmental deforestation and biodiversity loss in southern educational zone of Cross River State, Nigeria.

### **Theoretical Frameworks**

This study is anchored on the Thomas Robert Malthus theory of population (1978).

The theory states that as a result of the growing population and limited food, the un-controlled population growth will lead to steady depletion of resources because of man-kind steadily push towards maximum satisfaction of his needs. Malthus further attribute the major environmental problem like deforestation, bush burning, unsustainable practice that leads to the loss of bio-diversity among others on population pressure. Malthus also view that population pressure

contributes to the loss of diversity or depletion of important natural resource in developing countries.

The relevance of this theory to this study is on the application of control growth rate of biodiversity loss, sustainability and positively restore balance between increase growth rate of deforestation and biodiversity loss. The adoption of this theory will help to encourage afforestation in the rural and urban areas. Awareness on biodiversity conservation should be created in other to help achieved environmental sustainability.

## METHODOLOGY

The design employed in conducting this research was the ex-post facto; this is because the research involved the collection of data to accurately and objectively describe existing phenomena studies that makes use of the design are employed to obtain a picture of the present condition of a particular phenomenon. The study population consists of all respondent in a research area, farmer, business men, traders, civil servant. The selected respondent had a total population of (806)

The sample for the study comprised 403 respondent in the research area. Stratified and random sampling technique was used by the researcher to select the sample for the study based on certain characteristics or element possessed by the group that are relevant to the study.

One research question was raised to guide this study.

1. How does environmental deforestation influence bio-diversity loss?

One research hypothesis was formulated to help provide an answer to the research hypothesis

2. There is no significant influence of environmental deforestation and bio-diversity loss. The questionnaire was the instrument used for data collection for this study. The questionnaire was titled Environmental Deforestation and bio-diversity loss in southern educational zone questionnaire (DBLSEZQ).

In analyzing the data, the hypothesis was re-stated followed by the statistical tool employed. The data was analyzed using one way analysis of variance (ANOVA) at 0.5 significant level.

## Results:

Environmental deforestation does not significantly influence biodiversity loss. Summary of data and one way Analysis of Variance (ANOVA) on the influence of Environmental Biodiversity Loss in Southern Educational Zone.

Deforestation	N	Mean	SD		
Low	38	26.1579	6.76847		
Moderate	277	27.8664	4.89900		
High	88	30.6364	4.42870		
Total	403	28.3102	5.16692		
Source of variance	Sum of square	df	Mean square	F	P-value
Between groups	706.754	2	353.377	14.099*	.000
Within groups	100225.474	400			
Total	10732.228	402			

\*Significant at .05 alpha level  $P \leq .05$ ; critical  $f = 3.02$

The result in the above table shows that the calculated F-ratio of 14.099 is significantly higher than the critical F-ratio of 3.02 at .05 level of significance. With this result; the hypothesis is rejected. This result therefore implies that environmental deforestation significantly influence the bio-diversity loss in Southern Educational Zone.

### **Discussion of Findings**

The result of the hypothesis reveals that there is a significant influence of environmental deforestation on bio-diversity loss in Southern Educational Zone. The finding of hypothesis is in line with view of Lise (2000) who observed that the type of natural environment that was obtained some years ago are no longer available because of anthropogenic factor such as; Farming, bush burning, logging, overgrazing, and exploitation of forest resources. Arising from the finding and conclusion, it was however recommended that afforestation should be encouraged and be promoted both in the rural areas and urban areas, since man must use available natural resources to better his livelihood and avoid indiscriminate logging and bush burning. According to Ajibade (2002) deforestation has caused bio-diversity in Nigeria and Africa in general. (Hunter, Hommit, Battes, Belson and Werner 2005) Medugu (2010) observed that in spite of its importance, the natural tropical high forest has continued to diminish rapidly in the African continent, resulting in dwelling sustainable forest management and that Nigeria could face the possibility of timber and fuel, wood scarcity towards the end of the century.

Ajibade also predicted that within the next 50 years unless adequate measures are taken, most humid tropical forest land area in Africa could be transform into none productive land and the deterioration of the savannah into a desert will be accelerated.

### **Conclusion**

Based on the result of the study, it was concluded among others that in order to address the threat man-kind is posing to the bio-diversity and environment, there should be controlled exploitation and planned replenishment rather than reckless exploitation of bio-diversity. The analysis of data using ANOVA has further reviewed the study in the area of deforestation, bush burning, and other environmental exploitation activities should be well managed, and environmental laws should be implemented and enforced. To achieve thus, citizen participation in bio-diversity conservation should be encouraged and non –governmental organizations, community base organizations, internal agencies and government at all level should be involved in issues concerning bio-diversity conservation.

### **Recommendations**

Based on the findings obtained from analysis of data, the following recommendations were made.

1. Afforestation should be encouraged and be promoted both in rural and urban areas. Since man must use available natural resources to better his livelihood and avoid indiscriminate logging and bush burning.
2. Environmental education and awareness should be created on the potential of bio-diversity conservation.
3. More efforts should be established on the existing forest need, project and improve biological diversity status with appropriate sanction on defaulters and incentives for promoters of free planting campaigns.

## References

- Ajake, A. O. & Eja, E. I. (2012). The effect of forest degradation on community livelihood in the rainforest of Cross River State, Nigeria. *Journal of Environmental and Natural Resource*, 9(3), 29-39.
- Ajibade, S. A. (2002). The use of GIS in environmental protection and monitoring: A case study of utility management. NIS 37<sup>th</sup> Annual General Meeting (AGM) Alexander, D. (1993). *Natural disaster* Kluwer Academic Publishers, London.
- Anijah-Obi, V. N. (2004). *Fundamental of environmental education and management*. Calabar: University of Calabar Press.
- Bisong, F. E. (2001). *Natural resource use and conservation systems for sustainable rural development*. BAAJ International Company, Calabar, 45-50.
- Bouline, J. (2000). A worker's view on sustainable forestry managing forest in ecosystem sustainable forest management. In Von Gadow, Pukkala and Margarida. *Kluwer Academic Publishers*, Dordreck, Netherlands.
- Cross River National Park (CRNP, 2008). *Report on activities of Cross River National Park from 1991 to 2007, presented to House of Representative Committee on Environment*.
- Lise, W. (2000). Factors influencing people's participation in forest management in India. *Ecological Economics*, (34), 379-392.
- Paul, H. & Paul, R. (2011). *Essentials of environmental management*. Leicestershire: IOSH Services Ltd.
- Wahab, M. K. A., Alarape, A. A. & Ayodele, I. A. (2015). Human activities and biodiversity conservation. Osun Osogbo World Heritage Site, Nigeria. *Merit Research Journal of Agricultural Science and Soil Science*, 3(1), 001-008.