

Conserving Nigeria's Environment through Environmental Management Education in Rivers State

By

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Abstract

Environmental conservation involves the wise use of resources and their preservation from reckless exploitation and wanton destruction. In contemporary Nigeria, however, the ideals of conservation have failed to be properly integrated into the national development agenda. Widespread ignorance and low levels of environmental awareness have been identified as prominent factors responsible for this state of affairs. Since education remains the cure for ignorance, this paper therefore aims to emphasize the urgent imperative for the incorporation of environmental management education as a major component of an integrated framework for the conservation of Nigeria's environment. The paper contends that effective environmental conservation may never be attained unless and until requisite skills are developed and sufficient awareness is created nationally and locally through a robust programme of environmental management education. The paper recommends the adoption of environmental management as an important component of our effort to ensure effective conservation and national development. Specifically, environmental management education should be introduced as a subject in primary and secondary schools, while universities and other tertiary institutions should offer it as a general course and make efforts to establish Environmental Education and Management Departments in the Faculty of Environmental Studies as approved by the National Universities Commission.

Keywords: Environmental Management, Environmental Education, Conservation, Resources, Awareness.

Introduction

The Nigeria Environment is seriously threatened and fraught with all kinds of dangers which are now manifesting in environmental problems including pollution of water, air and land, erosion, deforestation, flooding, climate change, greenhouse effect, global warming, biodiversity loss, desertification and desert encroachment among others. As pointed out, the handwriting is bold and clear, that the danger point has been reached and even exceeded in many places (Aina, 1995) and so future can be as bleak as one in which the basic resources essential for human survival and development are increasingly being destroyed by human misuse (Anjola-Olubi, 2001; Harrison, Inyang & Udo, 2010).

Given the limited and finite nature of most environmental resources and the persistent increase in the incidence, severity and complexity of environmental problems arising from unsustainable exploitation of resources, it becomes quite pertinent that the tenet of conservation be adopted and integrated into the way and manner in which environmental resources are used. The rate of species extinction for instance, must be slowed down through conservation otherwise, man may soon join the dinosaurs!

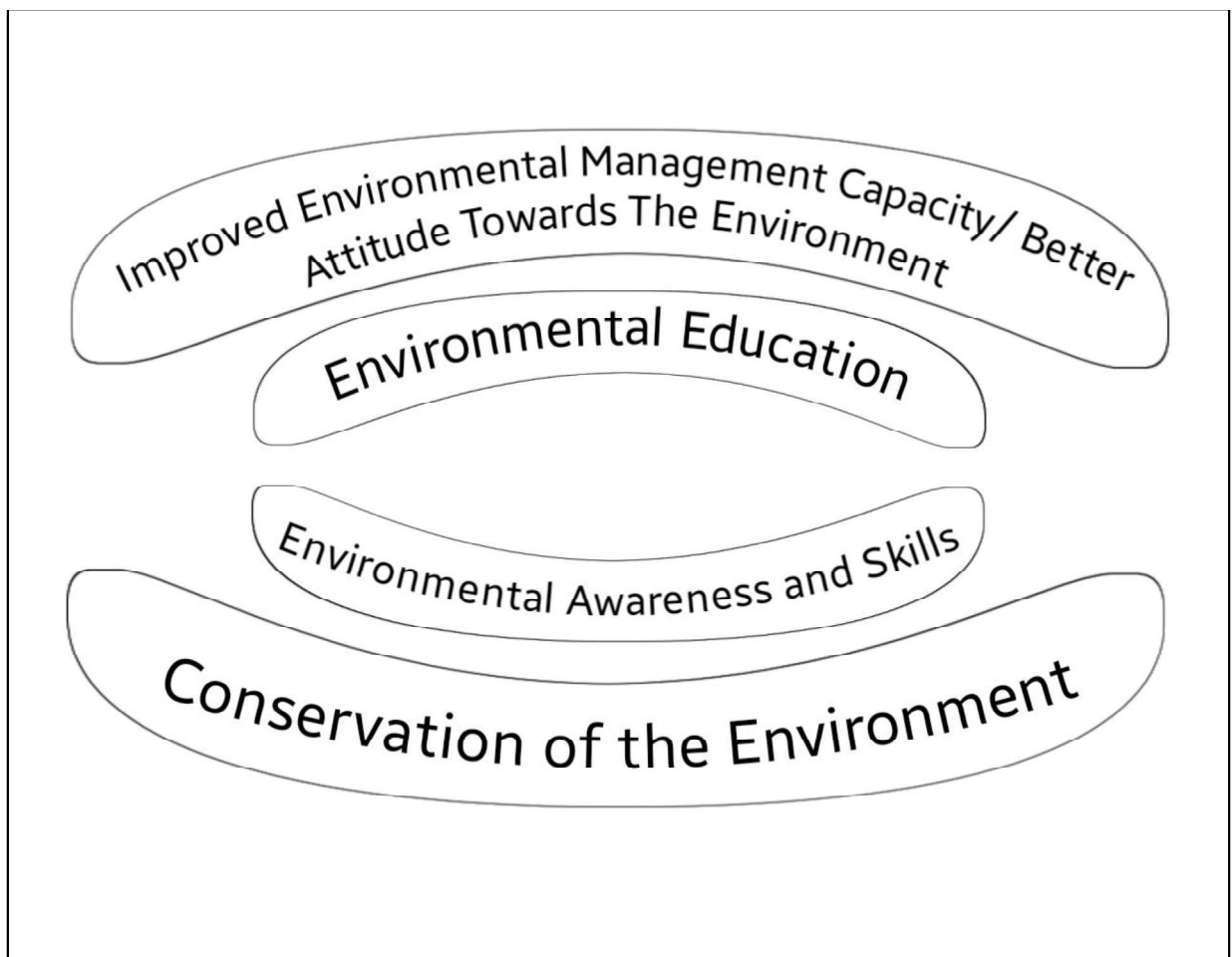
The word conservation comes from two Latin words, 'con' meaning 'together' and 'servare' which means 'keep' or 'guard'. Therefore, etymologically, conservation means to keep together. Conservation may be seen as the wise, rational, careful and judicious use of natural resources and their preservation from reckless exploitation and wanton destruction (Robinson, 1976). It means preservation, maintenance, sustainable utilization, restoration and enhancement of the natural environment (Ukpong, 1991). To Bisong and Ajake (2001), it implies the management of human use of the biosphere so that it may yield the greatest sustainable benefits to the present generation while maintaining its potential to meet the needs and aspirations of future generations. It ensures the best use of resources which guarantees the highest level of satisfaction for the longest period of time (Harrison, Inyang & Ekott, 2014).

In spite of its enormous benefits, the ideals of conservation have failed to be properly integrated into the national development agenda. The basic tenets of conservation are often neglected to the extent that resources are exploited and consumed as if they were inexhaustible. Both in rural and urban areas, people are still involved in unsustainable practices, without minding the consequences. This situation has been blamed majorly on ignorance and low level of environmental awareness. The cure for ignorance is education. This paper contends that the goals of conservation can better be achieved within a framework which makes provision for the creation of sufficient awareness through a robust, programme of environmental management education. As noted by Harrison, Inyang and Udo (2008:58):

It is painfully true that in Nigeria, a significant number of people are still ignorant of the need for forest conservation while others are simply unaware of the many socio-economic and environmental consequences of forest destruction. Forest resources are exploited as though they were unlimited or as if there is no tomorrow. This God's given resource is subjected to all forms of misuse and even abuse. Forest communities and business men alike have developed very unsustainable resource harvesting techniques with which they assault the forest with terrible consequences. Given this scenario, the creation of sufficient awareness on forest conservation through environmental education becomes an imperative.

The creation of conservation awareness through environmental management education has the capacity to change the attitude of people radically in support of the effort towards environmental conservation. Environmental management education also known as environmental education, may be formal or informal, but basically aims at influencing and actually changing the attitude of the generality of the people towards sustainable use of the environment. It is a form of education that provides a system of educating the citizens about matters and issues that affect the environment, homes, villages, cities, farmlands, and water supplies, forest and water in order to improve our awareness and skills and engender a change of attitude towards our

environment and thereby arouse concern about the problems around us (Ezeh, Ekpoh and Ifong, 1995). The nexus, which is further illustrated below, shows that through environmental management education awareness is created that eventually results in a positive change in attitude towards the environment and its management. The awareness and positive attitudinal change will ultimately guarantee the conservation of the environment.



Historical Roots of Environmental Conservation

Concerns about the way man uses the environment is not entirely new but dates back to history. As early as the fourth century for instance, plato observed that the

landscape of Greece, which was once, clothed with abundant forest of fine trees and fertile soil, became a rocky "skeleton of a body wasted by disease" due to erosion by heavy rains after the trees were cut to build houses and ship. Thus, according to him, made farming impossible as the springs and rives had dried up. As a result of the acrid smoke it produced, King Edward 1 of England threatened to hang anyone burning coal in London in 1273. And in 1661, the noxious air pollution caused by coal fires and factories became a source of worry for the English diarist Evelyn John who suggested that sweet-smelling trees be planted to purify the city air (Cunningham, Cunningham & Siago, 2005)

In modern times, the need for conservation has simply become more urgent due to the accelerated increase in the number and magnitude of environmental problems arising mostly from human activities. Increases in human numbers and the resultant expansion in industrial activities and agriculture have been recognized as major drivers of contemporary environmental degradation and change (Harrison, Inyang & Udo, 2010).

Using Environmental Education to Promote Conservation

Environmental education can be used to promote conservation, because it sets the foundation for the indigenous people to gain the necessary knowledge, skills and motivation to take an active role in protecting the environment and creating more resilient communities. It helps indigenous people understand and evaluate local and global issues and enable them to master critical thinking skills needed to make informed decisions for the environment. Environmental education helps indigenous people recognize that people and their livelihoods rely on earth's natural systems and that peoples actions play a critical role in maintaining ecosystem health and productivity. Environmental education can improve conservation by using locally appropriate and creative strategies that empower indigenous people, providing them with opportunities to take direct action and remain engaged in ongoing and

community efforts to address local concerns. Environmental education can make direct, physical improvements to environmental indicators such as improving water and air quality, increasing biodiversity, or restoring habitat. Environmental education builds environmental awareness, knowledge, and skills.

Environmental education can be used to promote conservation to a great extent. Ezimah (2006) describes environmental education as the most essential means of promoting national and international awareness among citizens of the world. Ezimah also stated that irrespective of age, level of education, or status in life, everyone uses the environment in various ways and therefore has a practical responsibility to be well informed. Similarly, as individuals are economically, practically, clinically, and emotionally affected by the impact of human activities on the environment. Environmental education enhances people's thoughts and experiences, encouraging research and investigation into why certain things happen and to examine the relationship between the environment and health. By providing relevant, up-to-date information, environmental education also helps adults understand the importance of conservation and the actions they can take to protect the environment. It can also challenge existing attitudes and behaviors that may be harmful to the environment. Engaging indigenous people in discussions, workshops, or experiential learning activities will raise awareness, shift attitudes, and encourage sustainable behaviors such as reducing waste, adopting greener practices, or supporting conservation organizations. Environmental education can empower indigenous people to take collective action for conservation by fostering community engagement, organizing community networking, and advocating for conservation within their communities.

Environmental education can further promote policy and advocate for conservation by educating indigenous people about environmental laws, policies, and the importance of community engagement, community action, and self-help to become informed advocates who can influence decision-makers and support the spread of environmental conservation.

Objectives of Environmental Education, as outlined by Anijah-Obi (2001) and contained in the Belgrade Charter of 1989, include:

1. **Awareness:** Environmental education should help individuals and social groups acquire an awareness of and sensitivity to the total environment and its allied problems. It should create awareness about the physical environment as well as the resources contained therein, the bounties of nature, the physical features, the vegetation, and the waterfalls, lakes, rivers, mountains, beaches etc and man's relationship to nature. This awareness will help individuals appreciate the beauty and usefulness of nature.
2. **Knowledge:** Environmental education should help individuals and social groups acquire basic understanding of the total environment, its association problems and humanity's critical responsibilities and role in it. Knowledge of nature and man-made environmental problems, their cause and consequences will no doubt enlighten the individual on how human activities contribute to environmental degradation. It will also enable him to realize the irreversible damage of some of these problems to the ecosystem as well as the threat to human survival.
3. **Attitude:** Environmental education should help individuals and social groups acquire social values, ethics and strong feeling of concern for the environment and the motivation for actively participating in its protection and improvement. Attitude change is one of the most important elements in environmental education. It will help individuals change their attitudes towards nature and other forms of life, like the plants and animals because individuals to empathize with and care for the environment so as engender lasting environmental friendliness.
4. **Skills:** Environmental education should help individuals and social groups acquire the skills for solving environmental problems. This has to do with the psycho-motor domain of learning experiences whereby the individuals and

social groups acquire conservation and environmental management skills such as tree-planting, flood and erosion control measures, low cost waste management strategies, sustainable agricultural practices etc aimed at protecting the environment for the present and future generations.

5. **Evaluation:** Environmental education should help individuals and social groups evaluate environmental measures and education programmes in terms of ecological, political, economical, social, aesthetic and educational factors.
6. **Participation:** Environmental education should help individuals and social groups develop a sense of responsibility and urgency regarding environmental problems so as to ensure appropriate actions to solve the problems. It should be noted that awareness, knowledge, attitudinal changes and the acquisition of skills cannot produce the desired results unless they are utilized in solving environmental problems. Commitment is required to ensure friendly decisions and actions relating to the environment.

Environmental Education Principles:

The Intergovernmental Conference on Environmental Education organized by UNESCO in collaboration with UNEP held in 1977 at Tbilisi, USSR was aimed to endorse the guiding principles of environmental education. As Egu, (2004) documented, the Tbilisi conference endorsed that environmental education should:

- i. Consider the environment in its totality – natural and built, technological, social, economic, political cultural, historical, moral, and aesthetic.
- ii. Be a continuous lifelong process, beginning at the pre-school level and continuing through all formal and non-formal stages.
- iii. Be interdisciplinary in its approach, drawing on the specific content of each discipline in making possible a holistic and balanced perspective.

- iv. Examine major environmental issues from local, national, regional, and international points of view so that students receive insights into environmental conditions in other geographical areas.
- v. Focus on current and potential environmental situations, while taking into account the historical perspective.
- vi. Promote the value and necessity of local, national, and international co-operation in the prevention and solution of environmental problems.
- vii. Explicitly consider environmental aspects in plans for development and growth.
- viii. Enable learners to have a role in planning their learning experience and provide an opportunity for taking decisions and accepting their consequences.
- ix. Relate environmental sensitivity, knowledge, problem-solving skills, and values to every age, but with special emphasis on environmental sensitivity to the learner's own community in early years.
- x. Help learners discover the symptoms and real causes of environmental problems.
- xi. Emphasize the complexity of environmental problems and thus the need to develop critical thinking and problem-solving skills.
- xii. Utilize diverse learning environments and a broad array of educational approaches to teaching/learning about and from the environment with due stress on practical activities and first-hand experiences.

Consequently, government and relevant agencies were assigned roles in protecting the environment and ensuring rational utilization of available natural resources.

Government Role in Promoting Environmental Education in Nigeria

The National Policy on Environment (1999) recognizes education as a dynamic instrument of change that should provide the foundation for developing sound and sustainable means of resource exploitation in Nigeria. Education, according to this policy, should promote public awareness towards changing and strengthening

attitudes, values, and actions that are incongruous with sustainable development. Governments saw the necessity to develop and support the education sector to ensure its responsiveness to changes and demands of all the other sectors, and facilitate the inculcation of environmental ethics, values, and skills in the people and mobilizing them individually and collectively to accept the responsibilities of protecting the environment and ensuring rational utilization of available natural resources.

To this end, the policy states that Nigerian government shall:

- 1 Promote comprehensive curriculum reviews that integrate environment and development concepts in the educational system.
- 2 Support the development of courses and programmes leading to the award of degrees and diplomas in environmental management and technology.
- 3 Encourage gender sensitive education at all levels including continuing education opportunities and literacy programmes.
- 4 Encourage practical training programmes for graduates of tertiary institutions to prepare them for labour market requirements and sustainable livelihoods.
- 5 Strengthen vocational training that facilitates the development and assimilation of environmentally sound, socially acceptable and appropriate technology.
- 6 Establish support centres of excellence in interdisciplinary research and education in the area of environmental and sustainable development.
- 7 Emphasize training and retraining of teachers, and school administrators in the area of environmental education and development issues.
- 8 Assist schools to design and sustain environmental related activities including establishments of environmental awareness clubs and association.
- 9 Support educational institutions including NGOs and the private sectors to develop and provide appropriate training programmes on environment and development issues to decision makers, business men, journalists, community leaders etc.

- 10 Promote research on and development of indigenous knowledge to facilitate sustainable adaptation of relevant technologies.
- 11 Adopt community-based approaches to public education and enlightenments through culturally relevant social groups, voluntary associations and occupational organizations.
- 12 Collaborate with the media, entertainment, and advertising firms to promote environmental awareness.
- 13 Encourage the United Nations and other donor agencies to emphasize capacity building in all development programs through adoption of the multidisciplinary approach to skills transfer.
- 14 Encourage research linkages and staff/students exchanges between Nigerian educational institutions and institutions abroad in the area of environmental studies and sustainable development.
- 15 Encourage public relation activities which tend to provide a forum and context for the debate on sustainable development and the articulations of the collective vision of the future.
- 16 Promote public awareness activities through traditional and mass media and encourage the participation of social and political structures to keep them informed about all aspects of the policy.
- 17 Support public participation in activities covering formal and non-formal education and training to help carry out needed changes.
- 18 Support environmental information at the national, regional, and global level.

Strategies for Developing Indigenous People's Environmental Education Awareness

This category comprises two major groups - those that have finished school and those that have never attended school (illiterates). Effective strategies for this category depend on the age and educational level of the target group.

The strategies which may be used include:

- Drama/popular theatre (enter-educate)
- Targeted message on radio, TV, posters/pictorials
- Newspaper advert and handbills
- Environmental
- Campaign trains puppets show
- Use of town crier
- Use of guest speakers or resource persons
- Use of youth clubs

Strategies for Educating the School Children

Environmental management education may be taught to the school children through the following ways:

- 1 Story telling
- 2 Singing of songs
- 3 Field trip/excursion
- 4 Environmental awareness/conservation clubs
- 5 Lecture/discussion
- 6 Projects-based approach

Conclusion/Recommendations

Given the limited and exhaustible nature of most environmental resources and the persistent increase in the incidence, severity and complexity of environmental problems arising from unsustainable exploitation of resources, it becomes quite pertinent that the tenet of conservation be adopted in the way and manner in which environmental resources are used.

Success in the quest for environmental conservation depends to a large extent on how many individuals, groups and communities become aware of and willing to adopt environmentally friendly attitude in their relationship and interaction with the forest. Creation of environmental awareness, inculcating the right attitude in the people and helping them develop the requisite environmental management skills are essentially the major aims of environmental management creation.

The paper therefore recommends the adoption of environmental management education as a major component of our conservation strategy; formal and informal approaches should be used to reach both school and non-school public. The introduction of environmental management education as a subject in the primary and secondary school system is emphasized. Universities, Polytechnics, Colleges of Education and other tertiary institutions should introduce environmental management education as one of their general courses, while sincere efforts are made to establish a full-fledged Department of Environmental Education and Management in their Faculty of Environmental Studies as approved by the National Universities Commission. This will facilitate the training of environmental managers, teachers, and facilitators, promote the creation of environmental awareness and ultimately, curb the challenges of environmental conservation.

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