

CHALLENGES AND OPPORTUNITIES FOR ENVIRONMENTAL EDUCATION IN NIGERIA

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Abstract

Environmental education is one aspect of Nigeria's life that ought to be taken seriously. This is so because environmental education as the name implies focuses on the education of the people towards achieving a healthier, more conducive, and sustainable environment. This paper seeks to discuss environmental education in Nigeria with the aim of bringing to bare its challenges and opportunities. The chief argument of this paper is that while there are several challenges confronting environmental education within the Nigerian context, there are also certain opportunities that the Nigerian populace can benefit from if properly utilized. This paper adopts sociological approach in other to present different perspectives on environmental education in general and also within the Nigerian context in particular, and afterwards highlighting on its challenges and opportunities as they pertain mostly to the Nigerian environment. To this end, this paper recommends that even with observe existing challenges, more opportunities that can be explored still exist for a dynamic environmental education that will help improve the knowledge base of the entire Nigerian citizenry on global warming and climate change as well as equip them with skills needed or promoting a more sustainable interaction with their natural resources.

Keywords: Challenges, Opportunities, Environmental Education, Sustainability, Nigeria.

Introduction

Environmental education is becoming a thing of great concern in the contemporary Nigerian society particularly as there are increasing environmental issues currently emerging and confronting the Nigerian context like soil erosion, pollution of all kinds and shades, deforestation, climate issue, depletion of the ozone-layer, etc. Environmental education is apparently the main field that educated individuals about such environmental issues confronting them and how to manage or solve such problems in order to achieve a sustainable environment.

Environmental education, just like any other field, is without doubt often confronted with its own challenges and opportunities. This therefore is the thrust of this paper, to expose some of the challenges and opportunities for environmental education. This will be done using the Nigerian context. Thereafter, an attempt will be made to present a brief overview of environmental education in Nigeria. This will enable us discuss the challenges confronting environmental education in Nigeria and opportunities for environmental education in Nigeria. The climate of the earth has over the years been witnessing dynamic processes as exhibited in the increasing rise in sea level and temperatures we are experiencing today in our environment. The effects of this phenomenon have manifested in extremities in the global weather. These are already affecting people across the world and have started making life

unbearable to human, plant and animal lives. The magnitude of the dangers they portend to our biotic and abiotic environment is becoming higher and higher.

An understanding of the associated dangers will equally demand a consideration of viable options or getting a variety of stakeholders to become more knowledgeable about climate change and its associated environmental problems, in order to contribute to the slowing down of these problems and their effects or impacts.

This paper therefore attempts a discourse of the state of our environment as it relates to climate change and the role of environmental education and awareness campaigns as part of the viable options for regulating the phenomenon. The challenges posed by a conscious desire to use environmental education as an intervention tool was equally examined while deplorable opportunities for its effective use for promoting positive environmental policies and behaviours that can facilitate effective climate change campaigns are discussed.

Environmental Education and Awareness as an Intervention Tool

Environmental Education (EE) can be described as the process by which individuals gain awareness of their environment and acquire knowledge, skills, values experiences needed for promoting qualitative interaction with their environment and the resources therein. It is a driving force that enables people to act individually and collectively, to address contemporary and future environmental problems. In this case, we are concerned about using environmental education to address the problems of global warming and climate change. Environmental education incorporates the development of awareness and appreciation of our proximate natural and socio-cultural environments, as well as the knowledge of basic ecological concepts, acquaintance with a wide spectrum of extant environmental issues. A well-articulated environmental education programme is capable of among others:

- Improving the understanding among the general public of the natural environment and the relationship between man and his environment; producing a citizenry that is knowledgeable concerning the biological environment and its natural resources;
- Developing the necessary skills and expertise needed to address environmental challenges; fostering attitudes, motivations and commitments to make informed decisions and take responsible actions;
- Facilitating greater involvement in activities that are targeted at improving, maintaining or restoring of natural resources and environmental quality for all.

Getting environmental education promote all or a combination of these benefits while using it to address the issue of global warming and climate change in a country like Nigeria however demands that our policy makers and other stakeholders must be ready to control some constraining factors and overcome some challenges.

Perspectives on Environmental Education

There are various perspectives surrounding the concept of environmental education. One of the viewpoints on environmental education is that it is a multi-disciplinary field integrating disciplines such as biology, chemistry, physics, ecology, earth science, atmospheric science, mathematics, and geography and the list continues. It is also necessary to argue that if environmental education in some way speaks of how human beings can manage the ecosystem and live sustainably, then the above list will not be complete if one fails to mention

the field of theology (in this case we particularly mean the Christian theology) because part of theology focuses on how human beings should maintain, manage, and utilize the environment for their sustainable existence.

According to Noel and Annette (2010), the earliest mention of the term was in the 1960s wherein it was considered as the term for the educational dimensions of the environment movement which, at that time, was concerned about air and water quality (pollution), the growth in world population, continuing depletion of natural resources and environmental degradation. This early trace of the term was focused more on the ecosystems.

However, within the present usage of the term, it seems to have come to focus not only on the ecosystems, but also on human behaviours in the entire environment. Noel and Annette (2010) support and advance this view by stating that "...the environmental focus...has shifted from the biophysical environment to the total environment – natural and built, technological and social (economic, political, technological, cultural-historical, moral, aesthetic), – to the three pillars of sustainable development – environment, society, and economy."

Another point of view regarding the concept of environmental education is put forth by Joel (2011) who upholds that environmental education is a process of imparting awareness and adequate knowledge about the problems and functions of the environment, how to use it wisely and proffer solutions to the current environmental problems. What this definition implies on one hand is that environmental education helps individuals to become adequately aware about how the environment functions and some urgent problems confronting their environments. It also implies on the other hand that environmental education equips individuals to the point of not only identifying the problems threatening their environments, but also how they can wisely proffer solutions to such threatening problems of their environment in order to foster a conducive habitation and sustainable development.

The focus of environmental education is often on the social groups and individuals existing within a given context. To support this assertion, it is necessary to mention that Kwale(2011) has quoted Abubakar (2010) who outlines the following as objectives of environmental education:

- a. Awareness:-To help **social groups and individuals** acquire an awareness and sensibility to the total environment and its allied problems and/or issues.
- b. Sensitivity: - To help **social groups and individuals** gain a variety of experience in, and acquire a basic understanding of the environment and its associated problems and/or issues.
- c. Attitude: - To help **social groups and individuals** to acquire a set of values and feeling of concern for the environment and motivation for actively participating in environmental improvement and protection.
- d. Skills: - To help **social groups and individuals** acquire skills for identifying and solving environmental problems and/or issues.
- e. Participation: - To provide **social groups and individuals** with an opportunity to be actively involved at all levels in working towards, resolution of environmental problems/or issues.

Development of Environmental Education in Nigeria: A Brief Overview

The issue of when exactly the subject matter of environmental education became a reality in Nigeria can be said to be under debate; for instance, Bosah (2013) attempts to situate such moment around 1990. Bosah (2013) argues that:

In Nigeria, the concerted effort of the Nigerian Conservation Foundation (NCF) in 1988 motivated the fusion of an environmental education element into the citizenship education curriculum in 1990 national curriculum review conference, subsequently followed by a UNESCO sponsored National Workshop on the integration of EE elements in the National School Curriculum and the teacher programme.

Bosah (2013) further argues to show that more practical aspects of environmental education came into force between 2003 and 2005 when the government began taking practical steps in promoting the wellbeing of the environment through her various instituted programs. For instance, according to Bosah (2013),

The desire and commitment of government to tackle environment education issues in Nigeria pointed to the need to develop a baseline survey, the Nigeria living standard survey 2003/2004 for monitoring and evaluation of the various government programmes like tree planting campaign, sustainable environmental management technique such as soil erosion control, shelter belt control, afforestation and reforestation, bioregradation programme for pollution amongst others.

On this issue of government instituted programmes in Nigeria to address the issues of environmental education, Bosah (2013) quoted Ugwu (2006) who clearly argues that “many of these policies and programmes have failed to attain their objectives or fallen short of the ends they were set up to attain. In other words, these programmes have not always satisfied the purpose for their initiation.

Contrary to the view of Bosah (2013) is that of Norris(2016) who also attempts to discuss on what he calls an “historical development of environmental education in Nigeria.” Norris(2016) claims that environmental protection in Nigeria has long been established in the Nigeria laws and formal institutional structure in order to address the various environmental problems faced in the society. Norris(2016) quoted Adelegan (2006) who maintains the view that:

“The Nigeria’s environmental protection efforts had existed since the British colonial rule in the 1900s through their by-laws. Some of these laws and regulations promulgated on environmental issues included criminal code of 1958 that controlled burial in houses thereby curbing issues of water pollution; public health act of 1958 which aimed to control the spread of disease, slaughtering of animals; forest ordinance of 1937 which lead to the establishment of various forest reserves in the country”.

The position of Adelegan (2006) as quoted by Norris(2016) tends to date back the development of environmental education in Nigeria to the period of colonialism. This position also

observed an interesting feature of this period by stating that "...the environments studied were of the British society and not the local Nigerian environment". In other words, the concentration of environmental education in this period was a shadow of what is obtainable in today's Nigerian context.

From the analysis above, it is worthy to wrap up this section with the stance that the exact time or moment when environmental education became a complete field of study on its own in Nigeria is very much uncertain because it is not properly documented historically. However, one can say that in its earliest development in Nigeria, it began with the infusion of its elements into some aspects of the national school curriculum. The aspect of its accurate historical development needs to be documented and this can form a subsequent research for those in this field.

Challenges Confronting Environmental Education in Nigeria

Before we delve into these challenges, we need to state clearly that these challenges are enormous and cannot be fully captured in this paper because it is a broad topic of discussion on its own. However, our aim here is to highlight on some of the challenges practically confronting environmental education in Nigeria. In as much as we may at one point or another borrow from the experience of other context and interpret such experience in relation to the Nigerian context, our major focus will be to highlight these challenges taking into consideration the fact that Nigeria is a multifaceted context. Some of these challenges include:

i. Limiting Environmental Education only to the Theoretical Framework of Tertiary Institutions

Noeland Annette (2010) argue from a different context other than Nigeria that environmental education has been "both curriculum product and curriculum process." By this they partly mean that environmental education is a way of [formal] learning that are associated with changing attitudes, behaviours and participation in society. This is also true when interpreted in the Nigeria context wherein environmental education has been confined to the theoretical framework of tertiary institutions alone and generally considered as a way of obtaining "formal learning" about the environment we live in. "The term often implies education within the school system...." Because of this thought pattern of seeing environmental education as a way of acquiring "formal learning" about the environment, then it is best obtained in the classroom and delivered by acclaimed "professionals" who without doubt have marginalized the traditional schooling systems (the informal learning system).

Consequently, Noeland Annette (2010) further suggest that environmental education at this time requires a change in the curriculum content to include knowledge and skills that are essential in the sustainability of the environment. When this suggestion is viewed from the Nigerian lens, it becomes necessary to say that even though environmental education has been a thing of the classroom and taught by "professionals" in time past, the curriculum used in teaching it (particularly in Nigerian tertiary institutions) should be expanded to accommodate more practical knowledge and skills that will help students cope with the reality of what it takes to sustainably live in the Nigerian environment as well as address issues which confront or militate against the sustainability of the Nigerian environment.

The issue of environmental education is becoming a serious practical necessity to be considered in Nigeria. Therefore, to be more practical about environmental education will mean to incorporate it into such fields that are becoming very prominent in Nigeria like the field of religion, medicine, law, etc. To this end, it will become a thing of great concern to every citizenry of the country wherein for instance, a religious leader will be able to talk about it to his/her followers, doctors, lawyers, etc. will equally follow same.

ii. Multiplicity of Ethnic and Cultural Belief Systems

Nigeria is made of various ethnic and cultural groups with their different belief systems. Part of this belief system can be expressed in a simple word "Totem/Taboo" which is common to every traditional Nigerian society. One of the distinguishing features of these ethnic and cultural groups is their belief on totem or taboo. The word "totem" means any natural object or living creature that serves as an emblem of a tribe, clan, or family while taboo means something which may not be used, approached, or mentioned because it is sacred. In the Nigerian context for instance, when an animal, a tree, or anything else existing in the ecosystem is christened a totem or taboo, it becomes natural to preserve them, but in a situation whereby anything is not designated as such, the existence and survival of such a thing is at risk and not guaranteed.

More so, what is regarded as a totem or taboo in one ethnic or cultural system may not be considered same in another ethnic or cultural setting. All these form part of the challenges confronting environmental education in Nigeria in that it is difficult to develop an all encompassing environmental educational curriculum that will accommodate the multiplicity of ethnic and cultural belief systems of the Nigeria people thereby guaranteeing a sustainable environment for all.

iii. Less Concerned Attitude Towards Education and the field of Environmental Education

In recent times, the Federal Government of Nigeria has shown directly or indirectly that they have a less concerned attitude towards the education of the people of Nigeria. This is clearly visible for instance, in the lingering case on salary negotiation between the Academic Staff Union of Universities (ASUU) and the Federal Government which consistently results in long strikes in all federal universities of the Nigeria. In line with this, Bosah (2013) noted that education as an instrument of change demands proper funding. Adequate funding at the Federal, State, and Local Government could cater for teaching/learning of material to enhance environmental education. According to Bosah (2013), poor funding of education retards the system while regular payment of salary and other rewards and remuneration of various kinds, proper equipment of schools at all levels and other basic amenities would help in achieving the teaching and learning of environmental education.

On the aspect of environmental education and the willingness of students to engage in this field of study, it is necessary to stress that within the current Nigerian school system, an average Nigerian student will desire to study law to become a lawyer, engineering to become an engineer, medicine and surgery to become a doctor, banking and finance to become a banker, etc. Hardly will a student be willing to study environmental education because it is so unconventional. All these put together becomes a challenge for environmental education in Nigeria.

iv. A Conglomerate of other Challenges

Kwale (2011) has critically evaluated different Nigerian scholars like Ajiboye and Oyetade (2005); Kwale and Waget (2006); Abubakar (2010); Menyu (2010); Kwale (2010); and Udoye (2001) on the subject of environmental education. From his evaluation, he has also identified a conglomerate of other challenges confronting environmental education in Nigeria. These challenges which he identifies from his evaluation include:

- (i) **The complex interdisciplinary nature of the course** which would not only demand changes in teacher education programmes, but also that the current shortage of trained teacher to handle the discipline could serve as a challenge to the implementation of the programme as well as its effectiveness in most places in Nigeria.
- (ii) **The Increase in Nigeria's Population:** Kwale (2011) notes that to control environmental degradation, there is need to reduce human population. But the population of our country continues to increase. The implication is that high demand for food to feed many "mouths" would be on the increase; and there would be a corresponding cutting of trees and clearing of grasses in order to expand farmland for high crop yield to cater for the increasing population. Cutting of trees and burning of grasses facilitate soil erosion in the southern region, and in the north. These activities encourage both erosion and desert encroachment. Since the action of man on land for agricultural purpose is continuous, the effectiveness of environmental education for self-reliance will continue to be challenged.
- (iii) **Ignorance of the Part of Nigerians on Environmental Education:** Kwale (2011) holds that most of the people who are interested with the environment through farming, mining, hunting, fishing and lumbering are ignorant of environmental education as well as how the ecological system functions. He furthers his argument by stating that besides, the education under review was recently introduced and its target learners are the students in schools. Additionally, he maintains that our people tend to consider and value the short-term economic gain derived from the exploitation of the environment without being mindful of the danger being done to it and the sustainable use of the natural resource available in the environment. To this end, he is of the view that since the bulk of our population in Nigeria is not well educated about the environment, it will continue to use it recklessly, and this will make it to remain perpetually in problem.
- (iv) **Poverty:** In the words of Kwale (2011), poverty has become a problem in Nigeria such that both rural and urban dwellers use firewood for cooking in homes. Consequently, there is high demand for wood fuel by the citizens of Nigeria either for lucrative business or for cooking. This act is consequent upon high cost of kerosene and cooking instruments (gas cooker and stove). The poor condition of the ordinary man has reached a stage that if it is not being controlled and improved, our surrounding environment shall continually suffer degradation by man; and in consequence of that, the education under review cannot actualize its target objective.
- (v) **Increase in the Use of Automobiles:** In Nigeria, Kwale (2011) is of the view that because of increase in population and relative improvement in economic status of civil servants and some few business men, the number of vehicle owners as well as the use of vehicles has increased. Therefore, there are continual smoky discharges into the atmosphere of most urban centres of carbon-monoxide emissions from fairly used cars and industries not in accordance with the United Nations (UN) prescribed environmental friendly emission standard. As Nigerians insist on buying many cars or vehicles to cater for the transportation of the increased human population, dangerous gases such as carbon-

monoxide, sulphur, etc. will continue to be emitted into the atmosphere. This will lead to continuous catastrophic environmental pollution...with destructive consequence on human, plants, and animals.

Opportunities for Environmental Education in Nigeria

i. It becomes an avenue for job creation on the part of the Government:

It has been argued that there are various different career paths that can spring out of environmental education. In other words, if environmental education is given its proper attention by the government, it can become an avenue of creating jobs both for those who studied environmental education in the tertiary institutions and others whose fields of studies are in one way or another concerned about the dealings of man and environment.

According to an internet resource material, some jobs that can be created in this field are: (1) federal government park ranger which focuses on protecting the national parks, historical sites, and national seashores across [the federation] including the wildlife and ecosystems within them. (2) Outdoor Education Teacher whose focus is to teach students how the basic principles of science are implemented in the real world to solve important environmental issue. (3) Environmental Scientists whose jobs can include (i) researching topics such as air pollution, water quality, and wildlife, (ii) studying how human health is affected by changes in the environment, etc.(4) Environmental Engineer which involves the combination of biology/chemistry with engineering to generate ways to ensure the health of the environment.

ii. It Helps Guarantee the Survival of our Environment:

It is without doubt that with the prevalent environmental issues arising in Nigeria, one can conclude that the Nigerian environment is in serious trouble and needs urgent attention in order to guarantee its survival. According to Eze (2021), within the Nigerian context, environmental education is important and very salient in guaranteeing the survival of our environment. To achieve this, there is need to streamline the means of implementing and enforcing environmental education into all strata of the nation, at the national, state, local government, and if possible, further down the system. Eze (2021) believes that a whole lot can be achieved if forward steps are taken now towards an efficient environmental education.

iii. Creation of Awareness on Adaptation to Climate Change in Nigeria:

Ekpo and Aiyedun (2019) dedicate a whole article in discussing how environmental education is a tool for creating awareness on adaptation to climate change in Nigeria. According to Ekpo and Aiyedun (2019), environmental education is an essential tool for global response to climate change. It helps students and the general public to understand and address the causes, effects, and impacts of global warming, increases “climate literacy” among young people, encourages changes in their attitudes and behaviours, and helps them adapt to climate change related trends.

Environmental education also creates awareness and enables informed decision-making, plays an essential role in increasing adaption to climate change, and mitigation capacities of communities, empower women and men to adapt sustainable lifestyles (Ekpo and Aiyedun 2019). It therefore can be concluded following the view of Ekpo and Aiyedun (2019) that environmental education is a tool for creation of awareness and adaptation to climate change in Nigeria and therefore should be taught at all levels of education in the country, and climate

oriented actions should be encouraged such as organizing afforestation, reforestation and conservation programmes, etc.

The state of environmental education development so far in Nigeria today can be taken as a major opportunity that can help promote campaigns for more sustainable utilization of our natural resources and subsequent contributions to a gradual reduction of global warming and climate change. There is an existence of a national master plan for environmental education with corresponding curricula provisions targeting different levels of the nation's educational system and stakeholders already approved by the country's national council on education.

The current recognition and increased consciousness of the global community about the extent and impact of the phenomena is equally an opportunity that can be exploited. For instance, the United Nations Institute for Environment and Human Security Director was quoted in Lawal (2009) as saying that "there are well-founded fears that the number of people fleeing untenable environmental conditions may grow exponentially as the world experiences the effects of climate change and other phenomena". Hence, an attempt to reduce the fears through environmental education mainstreaming can easily be accepted as a feasible and complementary welcome idea, not only here in Nigeria but across the globe.

In Nigeria today, the fear and avoidance of cheap and untimely death is taken as the beginning of wisdom. Hence, this could be regarded as an opportunity or a basis for an easy acceptability of environmental education when it comes to campaigning against global warming. This is particularly so, when people are made to realize the possibility of Nigeria's coastal cities and communities becoming submerged with a projection of a sea level rise of between 56cm and 184cm by the year 2100 with a continuous rise for at least the next 1000 years. The existence and creation of new government agencies like the national agency for standards and environmental regulations is equally an opportunity waiting to be exploited for the re-introduction of environmental education into the nation's social system. The mandate of some of these agencies include environmental education and it is therefore expected that a well thought programme package right from the onset by these new agencies should consider environmental education as a major component and being practical about this, will do a lot in the campaign against global warming and climate change.

An improved consciousness at the local level to work together in the business of promoting qualitative environment is another opportunity that will greatly enhance the changes of an environmental education focusing on global warming and climate change campaigns. People are becoming more and more concerned about the quality of their environment even when a large percentage seems quite ignorant of most of the major causes of the current poor state of such environment.

Building on Opportunities and Facing Challenges

Agreed that we presently do not have the minimum critical infrastructure needed or monitoring meteorological developments or pollution, it is still important that we explore the few existing opportunities at our disposal to initiate and carry out tangible environmental awareness and education campaigns on global warming and climate change. Hence, one is recommending the development of an environmental education agenda for the nation. This agenda is expected to pull together all the past and current efforts, policies and programmes

in environmental education for a rework and assessment of their utility value in relation to the anticipated and ultimate goal of a fruitful global warming and climate change campaign. The scrutiny should produce a new set of environmental education components targeting different stakeholders and aimed at contributing to the international efforts at slowing down the rate and impact of global warming and climate change across the world. The products of such agenda to be implemented must emphasize and environmental education with a set of components and content areas that are capable of addressing environmental restoration, environmental remediation, environmental reclamation and environmental recreation.

The agenda should also aim at capacity building. Lawal (2009) observes that Nigeria would need to build technical, managerial and overall institutional capacity to manage and restore the environment and ensure that on an ongoing basis, sustainable development is pursued without any let up. Government at all levels should need to revive the conservation education officers' desk that used to exist when a national conservation education strategy was approved or the nation in 1982. The revival of this policy will avail us all the opportunity of having a contact we can consciously refer to when it comes to issues concerning environmental education and awareness. A note of caution has to be sounded here that effective functioning of this desk officer will depend largely on the ability to network with other agencies working on the promotion of qualitative environment both within and outside the nation.

The content of our environmental education for different target groups must necessarily have some core actions, particularly those we can learn to do either as individuals or groups to reduce global warming. These, Lawal (2009) says should include ethics such as:

- Reduce, reuse, recycle
- Use less heat and air conditioning
- Drive less and drive smart
- Buy energy –efficient products
- Use less hot water
- Use the “off” switch
- Plant a tree
- Encourage others to conserve

Environmental education presents a host of issues and opportunities of vital and common concern, to which people of all ages, races and beliefs can readily relate. It is therefore expected that our policy makers and implementers in the country should begin to consider approaches that can make use of environmental education to the best, if we must be active partakers in the global campaign on climate change and global warming.

Conclusion

This paper concludes with the stance that while there are several challenges confronting environmental education within the Nigerian context, there are also certain opportunities that the Nigeria populace can benefit from if environmental education is properly utilized in all facets of Nigeria's environment. Because of the calamitous environmental hazard that is continually confronting the Nigerian environment; environmental education should be made more practical by means of incorporating it into all major fields of study in Nigeria. To this end, it will become a thing of great concern to every citizenry of the country to fight for the survival of the environment and to ensure a sustainable environment for the present and

future generations. Additionally, when developing curriculum to teach environmental education in Nigeria, such curriculum should take cognizant of the multiplicity of ethnic and cultural belief systems of the Nigerian people which are in one way or the other connected to how they view their entire environment. Also, the government at all levels in Nigeria should as a matter of urgency see the need of funding the cause of environmental education in Nigeria because the healthy survival of the Nigerian environment depends so much on it.

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