



A REVIEW ON ENVIRONMENTAL EDUCATION FOR THE AMELIORATION OF ENVIRONMENTAL CHALLENGES AND ATTAINMENT OF SUSTAINABILITY OF THE NIGERIAN ENVIRONMENT

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ABSTRACT

This study attempts to review the importance and application of Environmental Education as well its types and sources in Nigeria with the view to making people more conscious towards proper utilization of environmental resources. Similarly, the study reviews the efforts made by Nigerian government towards safeguarding the environment in order to attain sustainability. However, the review revealed that most of the environmental laws and regulations were not enforced at various stages, as such degrades the quality of the environment. While the study recommended the enforcement of the environmental laws and regulations, it further recommended that environmental education (EE) should be incorporated into the National Curriculum or captured in some subject areas such as Social Studies, Hygiene, Basic Science, etc. of the National Curriculum. Lastly, the paper recommended the use of seminars, conferences, workshops, and media, among others can go a long way in educating and re-educating people about their environment.

Keywords: Review, Environment, Education, Amelioration, Sustainability.

INTRODUCTION

In recent times, many countries around the globe (such as India, Malaysia, USA, Uganda, China, to mention but a few) introduced some concepts of EE in their educational curricular in subject areas such as Basic Science, Social Studies, Civic Education, etc, (Abubakar, 2018). Environment in simple terms refers to the external/physical surrounding (habitat), chemical, organic, and non-organic components of the atmosphere, lithosphere, hydrosphere, and biosphere which we directly or indirectly depend upon for our survival. However, in advanced sense, environment is more than the physical surrounding, but it includes the intellectual, social, moral, political, socioeconomic environment such as buildings, and other man-made features that influence life, behaviour, nature of individuals and population (Umar, 2021)

In other words, environment is generally defined as the surroundings or conditions in which a person, animal or plant survives or operates. From this, it must be relatively easy for one to comprehend its importance in the famed cycle of life. This environment of ours is constantly changing and as our environment changes, so does the need to become increasingly aware of the environmental issues that are causing these changes. With a massive increase of natural disasters, warming and cooling periods, deforestation, desertification, drought, pollution, different types of weather patterns and much more; people need to be a lot more cautious with the way they live their lives in conjunction with these types of environmental issues our planet is facing.

Man on the other hand is thus an inseparable part of the environment. Man and Environment have very close relationship with each other. As such, for every action of man on the environment, there must be equal and opposite

reaction (Umar, Yahaya & Yayaji, 2018). The social life of man is affected by environment. This is the reason for various types of social and cultural activities around the world. The hilly people have different life styles than people in the plain area. Similarly people around the world differ in terms of their food, clothing, festivals etc. All these are influenced by the factors around him (Umar, 2019). The term 'environmental education' was first used (at a meeting of the International Union for Conservation of Nature and Natural Resources, Paris, 1948) as an area of learning which seeks to address real issues and directly promote environmental improvement thereby involving students in local and global environmental problems (Olarenwaju & Iroye, 2018).

A historical review reveals how the term 'environmental education' has at times been synonymous with environmental studies, urban studies, outdoor education and conservation education and has been taken to mean a variety of activities which consider the environment for educational aims. The effect of this has been to distract from the real purpose of environmental education, which evolved in response to concern over the quality of the environment and the need for education to improve the existing environmental predicament (Tilbury, 1993).

THE CONCEPT "ENVIRONMENTAL EDUCATION"

EE refers to organized efforts to each about how natural environment functions and, particularly, how human beings can manage their behaviour and ecosystem in order to live sustainably. In other words, EE is a learning process that increases people's knowledge and awareness about the environment and associated challenges develop necessary skills and expertise to address these challenges and foster attitudes, motivations and commitments to make informed decisions and take responsible action for the betterment of the

physical environment. Environmental education according to UNESCO (1978) at the Tbilisi Declaration refers to any organized effort to disseminate knowledge about how the natural environment functions and how human beings can manage their behaviors regarding the ecosystem in order to live a sustainable live. This means that environmental education is a learning process that increases people's knowledge and awareness about environment and its associated challenges. It also develops the necessary skills and expertise to address these challenges. It as well fosters human attitudes, motivations, and commitments to making informed decisions and responsible actions. The concept is often used to imply education within the school system, from primary to post-secondary. However, all efforts to educate the public and audiences, including print materials, websites, media campaigns, etc. is referred to as environmental education (Wikipedia Encyclopedia, 2013).

This multidimensional approach to educate public implies taking the environmental awareness beyond the formal school setting to the streets and other social settings e.g. through television programs and other mass media. The entertainment industries should also be incorporated into the environmental education to capture the non-school goers. The aim of environmental education is to enable individuals and the communities at large understand the complex nature of the natural and built environments resulting from their biological, physical, social, economic, and cultural interaction with them. It also enable individual and group not only to acquire the knowledge, values, attitudes and practical skills to participate in a responsible and effective way in anticipating and solving environmental problems, but in managing of the quality of environment. Environmental education is also aimed at showing the economic, political and ecological interdependence of modern world, in which

decisions and actions by different countries can have international repercussions.

Environmental education in this regard helps to develop a sense of responsibility and solidarity among countries and regions as the foundation for new international order which will guarantee the conservation and improvement of the environment (UNESCO - UNEP, 1978). The specific objectives of environmental education include creating an awareness that will help social groups and individuals to be sensitive to the totality of their environment and its allied problems; helping social groups and individuals acquire or gain a variety of experiences and basic understanding of the environment and its associated problems. In addition, it enables them acquire a set of attitudes, values and feelings of concern for the environment as well as the motivation to actively participate in environmental improvement and protection. It will further help social groups and individuals not to only acquire the skills needed for identifying and solving environmental problems, but provides them with opportunity to participate or be actively involved at all levels in working towards solving environment problems (UNESCO/UNEP, 1978) in (Asaju and Arome, 2015).

In the last three to four decades, there have been considerable discourses on environmental issues, particularly on human attitude to the resource-base more than any other period in history. There has been increase in ecological researches and environmental awareness resulting in the formulation of various programmes and policies by governmental and intergovernmental agencies (Asaju and Arome, 2015) in Umar, (2019). Environmental problems continue to manifest in the last few decades when the world population begun to increase exponentially. Perhaps, with the small human population in the past, throwing away a little household degradable garbage could not

have been considered wrong. But with the enormous population, large quantities of non-degradable wastes were generated which indeed cause damage to the environment (Chapman, 2013). Over the last decade there has been growing concern over global inequalities, the stability of ecosystems and sustainability of existing lifestyles. Issues about quality of life of current and future populations are now at the forefront of public concern (Dunlap *et al.* 1992) in Tilbury (1993). As a result the 1990s have seen strong support for the idea of schools playing a critical role in educating for sustainability (BGPSD 1995; IUCN, UNEP, WWF (1991); UNESCO 1992; UNESCO 1995). On the other hand, sustainability development is the deliberate effect to harmonize human and material resources to meet the present needs and aspirations without compromising the future (Gough, 1997) in Chapman (2013).

Education for sustainability addresses quality of life issues through combining environmental education and development education. Environmental education, until recently, has focused on the quality of the physical environment, while development education has been traditionally concerned with economic growth and development of the social environment. Evidence that many people around the world exploit their local environment for daily survival coupled with the realization that social and economic factors are a contributory (and often major) cause of environmental problems has altered the course of environmental education in the 1990s. Similarly, recognition that real improvements in quality of life are dependent on the reconciliation between economic development and environmental conservation has changed the agenda for development education. Tilbury (1992) argued that problems such as climatic change, deforestation, land degradation and desertification, depletion of natural resources, loss of biodiversity, overpopulation, food

security, drought, poverty, and urban decay are primary concerns for both environmental and development education. Such matters as environmental deterioration and human development are also central to Geography.

The aims of environmental education were clarified as being to: arouse pupils' awareness and curiosity about the environment and encourage active participation in resolving environmental problems. As such environmental value is encouraged thereby leading to pro-environmental behaviour and preventing anti-environmental actions all the times. This cannot happen unless new educational processes are created both formally and informally and from the domain of individuals to that of a community (Tilbury, 1992). Education on environmental issues and on environmental values should be available throughout life to enable citizens to see for themselves the need for sustainability and to help convey the necessary sense of individual responsibility for a healthy environment.

Perception of Environmental Issues in Nigeria

There were series of conferences, seminars and researches on climate change and environmental degradation across the globe. Atanu and Olorundare (2007) in (Ladan, 2009) observed that the collection of environmental data in support of environmental protection and rational utilization of resources for sustainable development has for long become a global issue and Nigeria is not left out of this global effort in environmental management. This was indicated in the establishment of the National Environmental Act in 1969, The Federal Environmental Protection Agency (FEPA) in 1988, and various State and Local Government Environmental Protection Bodies.

Environmental issues began to receive public concerns especially the academia in the last four decades when world population began to

increase rapidly which consequently leads to high pressure on the environmental resources to cater for humans' needs (Umar & Adamu, 2021). These environmental concerns lead to several discourse, workshops, conferences, seminars and researches about environmental issues. The Federal Government of Nigeria for example, established National Environmental Protection Act in 1969 and the Federal Environmental Protection Agency 1988.

As environmentally conscious individuals, there is need to develop a sense of values that are linked with a better and more sustainable way of life for all people. There are several positive as well as negative aspects of behavior that are linked to the environment. The positive feelings that support environment include a value for natural resources, cultures, heritage, and equity. People also need to become more sensitive to aspects that have negative impacts on the environment. These include our attitude towards degradation of the environment, loss of species, pollution, poverty, corruption in environmental management, the rights of future generations and animal rights. Several great philosophers have thoughts that have been based on, or embedded, in pro environmental behavior. Mahatma Gandhi and Rabindranath Tagore were among the many internationally well-known scholars whose thought to have included values that are related to environmental consciousness. We need to appreciate these values to bring about a better way of life on earth for all people and all living creatures (Bharucha et al, 2004).

Development of Nigerian Environmental Laws

The development of environmental laws in Nigeria can be divided into two phases:

- a. The pre 1988 era
- b. The post 1988 era

The Pre 1988 Era

During the colonial era, Nigeria was not concerned about the protection of its environment; that was not a priority. Accordingly, there was no policy aimed at preserving and protecting it (Ladan, 2009). The tort of nuisance was more prominent because disputes in environmental laws were not viewed as public matters warranting state intervention. The few environmentally related laws that were applicable criminalized activities that could degrade the environment. One of the laws during the pre- 1988 era was the Criminal Code Act of 1916, which prohibited water pollution and air pollution. In 1917, the Public Health Act was enacted. Although, somewhat broad in scope, this Act did not contain provisions of relevance to the regulation of land, air and water pollution. At that time, matters relating to the environment were dealt with in a rudimentary manner, from the view point of environmental sanitation only (Otu, 2010) in Umar, (2019).

Following Nigeria's independence in 1960 and the discovery of oil in commercial quantities, laws dealing with the environment obviously became grossly inadequate. This was owing to the fact that most of the provisions on environmental protection were scattered throughout different laws, resulting in ad-hoc response to different needs in different situations. During the decade following independence, the Government criminalized polluting activities, particularly those relating to the discharge of oil in navigable waters and environmental degradation as a result of petroleum activities (Ladan, 2009). The 1970s saw the further development of the Nigeria's environmental regime in response to the individual growth associated with the oil boom or "oil boom" to the Nigeria's environment. River Basin Authorities were created and environmental units were established in some government ministries. The laws were,

however, typically "knee-jerk" responses to emergency situations.

Post FEPA 1988 Era

It is pertinent to note that the incidence of dumping toxic and hazardous wastes in Nigeria woke the Federal Government up to confront the problem of environmental abuse. This happened on the 19th September 1987 when Sunday Oyemire Nana, a farmer in Koko, a small village five kilometers from the coast in the former Bendel State of Nigeria, was approached by Gian Franco Raffaelli, an Italian business man who had resided in Nigeria for some 20 years, to dump about 3880 tons of toxic and hazardous waste on behalf of an Italian company. This led to the establishment of the "Harmful Waste Act prohibits", without lawful authority, the carrying, dumping or depositing of harmful wastes in the air, land or waters of Nigeria must be brought to book with the viewing to checkmate similar instances of the Oyemire's unfriendly environmental attitudes.

Subsequently, this Act metamorphosed into the Federal Environmental Protection Agency (FEPA) which was given the mandates to protect, restore and preserve the ecosystem of the Federal Republic of Nigeria by the decree 58 of 1988 requiring FEPA to establish environmental guidelines and standards for the abatement and control of all forms of pollution (Adelagan, 2004). FEPA also had the power to initiate policy in relation to environmental research and technology and in formulating and implementing policies related to environmental management. In addition, FEPA was given some enforcement powers including the right to inspect facilities and premises, search locations, seize items and arrest people contravening any laws on environmental standards and prosecuting them.

The agency was also empowered to initiate specific programmes of environmental

protection and establish monitoring stations or networks to locate sources of and dangers associated with pollution. It also has powers to conduct public investigations or enquiries into aspects of pollution. FEPA, now renamed “National Environmental Standards and Regulations Enforcement Agency” (NESREA) is presently the supreme reference authority in environmental matters in Nigeria although state and local government authorities and institutions including their environmental departments are still expected to play their traditional role of maintaining and enforcing standards as well as fixing penalties charges, taxes and incentives to achieve certain environmental goals. With the setting up of FEPA, the state’s Environmental Protection Agencies (SEPAS) were set up. These were complemented by the Local Governments (LGAs) Environmental Protection Agencies, which are virtually not active or even not in existence in most local government areas in Nigeria.

Summarily, the 1980s and 1990s witnessed the most drastic and systematic development of environmental laws in Nigeria, partly owing to Nigeria’s subscription to a number of international conventions and treaties during the said periods. Legislations on environmental development improved during this period; Nigerian had various legislations on the environment and some of them are still in operation in recent times.

PROVISIONS OF SOME ENVIRONMENTAL LAWS AND REGULATIONS IN NIGERIA

Environmental laws are worthless except they are effectively enforced. However, the functions of environmental laws should be well understood for effective and efficient enforcement. In Nigeria, environmental laws have been formulated and are being implemented to among other things according to (Nwafor, 2006):

- i. deal with a variety of environmental pollutions such as toxic chemicals, noise and others,
- ii. control particular activities such as mining, power generation, and
- iii. provide general guidelines for protecting basic natural resources such as water, air, land etc.

TYPES OF ENVIRONMENTAL EDUCATION (EE)

Environmental education both Informal and formal types should be stressed. The former is learnt at home and continues in the other aspects of life. It is not necessarily taught in the classroom. It may include the attitudes of parents towards their children in relation to the environment. Although, other means could be through public enlightenment via TV and radio programs, pamphlets, newspapers, magazines, etc. (Olofin, 2011) in (Umar, 2019). While, the formal environmental education, involves the teaching of environmental problems in various educational institutions – as the name implies-starting from nursery schools up to the institutions of higher learning. In this case, details about the environmental degradations/problems, management, amelioration and sustainable development are properly taught (Umar, 2019).

Each action by an individual must be linked to its environmental consequences in his/her mind so that a value is created which could lead to strengthening pro-environmental behaviour and preventing anti-environmental actions. This cannot be achieved unless new educational processes are developed in order to provide meaning to what is taught at school and college level. Every small child while growing up often asks questions like: what does this mean cans? They want an explanation for things happening around them that help them make decisions and through this process develop values. Providing appropriate

'meanings' for such questions related to our own environment brings in a set of values that most of people in society begin to accept as a norms. The pro environmental actions begin to move from the domain of individuals to that of a community. (Bharucha *et al*, 2004). Many teachers view EE and environmental literacy (EL) in terms of ways of imparting knowledge, skills and behaviors to students in order to be able to demonstrate after school. According to the Rio Declaration, EL guidelines are based on the assumption that an environmentally literate person should possess:

- i. awareness and sensitivity to the total environment;
- ii. a variety of experiences and basic understanding of environmental problems;
- iii. a set of environmental values, feeling and concern as well as motivation and disposition to actively participate in environmental improvement and protection; and
- iv. Skills for identifying, investigating and solving environmental problems.

Relevance of Environmental Education in Nigeria

Geographical content and methodology have a great deal to contribute to environmental education. Geography, which studies the interactions between humans and the physical environment, contributes to an understanding of the processes affecting the environment and encourages an interest in its management and protection. Most significantly, environmental problems have a spatial dimension which makes a geographical understanding crucial to environmental education.

Similarly, teaching and learning styles usually associated with geographical education can make a methodological contribution to environmental education. Geography education places emphasis on problem-solving and enquiry-based learning, role-play,

simulations and fieldwork which encourage pupils to carry out practical investigations and become actively involved in environmental management. Such approaches can have a significant impact on pupils' environmental education experiences (Umar, 2021).

Environmental Education for Sustainability

Education for Sustainable Environment Education has been recognized as the most veritable instrument for change and national development. In most societies, it has been identified as a powerful instrument for attitudinal change (Samuel, 2011). Wondo (2012) posits that time has come for attitude and behavioral change so that the society would be a better place for our teaming youths. Education is the substance that frees the human mind from errors and ignorance. It sharpens an individual's way of judgment between what is good and bad, not only for himself but also the society at large (Arongol and Dachomo, 2007). To develop and sustain the natural environment, there is the need to stimulate the mind of the people towards the knowledge and understanding of how to minimize the rate at which the natural resources are extravagantly exploited.

There is need for people of all ages to commit themselves to creating positive attitude toward social and environmental changes. This is a herculean task and education is the most veritable instrument to make it happen. Recognizing this, the past one decade 2005 to 2014 has been dedicated to Education for Sustainable Development by the United Nations (Chapman, 2013). Sustainable Development is the deliberate effort to harmonize human and material resources to meet the present needs and aspirations without compromising the future. Gough (1997) in Chapman (2013) was of the view that the concept of sustainable development gained its popularity in the 1980's. The World Commission for Environment and

Development report (WCED, 1987) defined Sustainable Development as that which "...meets the need of the present without compromising the ability of the future generations to meet their needs". This may not happen without a sustainable environment.

Sustainable environment is sine qua non to sustainable development. It involves making decisions and taking actions that are in the interest of protecting the natural world with particular emphasis on preserving the capability of the environment to support human lives at the moment without jeopardizing the future. This warrants conscious change in human attitudes and lifestyles. It also implies making responsible decisions and taking actions that will reduce human's negative impact on the environment. These ranges from reducing the amount of waste produce, using less energy, reasonable exploitation of the mineral resources and reducing indiscriminate felling of trees. This ultimately requires concerted effort to empower the public with essential knowledge and information about the environment and education is the key towards making this herculean task happen (UNESCO/UNEP 1978).

CONCLUSION

The study concludes that nonchalant attitudes of average Nigerian towards environment has immensely contributed to environmental degradation and environmental abuse in most parts of Nigeria. This is indeed contrary to what is obtained in other countries around the world. The study further observes that EE in Nigeria requires an overhaul in order to preserve, protect and restore environmental resources with view to attaining sustainability.

- i. There is need to take EE very seriously especially in the national curriculum of education. Students at various levels of education should be exposed to practical on environmental

- problems rather than just relaying only on the theoretical aspects of it.
- ii. Government at all levels, academics, NGOs and individuals deal engaged in massive campaigning on the protection of the environment in order to attain sustainability.
- iii. Governments and environmental agencies should further engage in the enlightenment and enforcement of environmental laws and ethics.
- iv. The significance of Environmental Impact Assessment (EIA) should also be stressed and made public with the view to creating more awareness and enlightenment on environmental issues.

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