



ENVIRONMENTAL EDUCATION FOR HUMAN SURVIVAL: THE CASE OF NIGERIA

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Abstract

The environment affects everyone. The world is being threatened everyday owing to man's activity and actions as well as man's 'inactivity and inactions' and man risks the danger of early extermination and extinction. The quality of human lives depends on the quality of the environment, and the quality of the environment depends on the level of environmental awareness among the citizens. Hence, the need for environmental education, as this will help to expose man to sustainable and unsustainable environmental practices. An observed challenge of environmental education in Nigeria is the non-implementation of the recommendations of National Policy on Environment; hence, the poor attitude of citizens towards the environment and various environmental problems in Nigeria. Therefore, with adequate environmental education, man would be able to manifest responsible environmental action and behaviour that would result in sustainable lifestyle choices such as selective utilization of resources, reduction in the rate of waste generation, identification of alternative sources of resources, regeneration of already utilized resources or their alternatives and thereby rescue man and the environment from further degradation.

Key words: Environment, education, human survival, environmental sustainability

1.0. Introduction

Man in his quest to improve his standard of living and make the world a more comfortable place to live, has caused diverse structural and biological changes in the environment which, if not checked, in the long run can cause a total breakdown of the environment and complete collapse of the ecosystem (Saleh, Mandungs and Bitrus 2006; Kwakfaan and Gwang, 2011). Akinnuoye and Abd Rahim (2011) assert that environmental education is an open way to environmental consciousness that promotes development and sustainability. The positive and negative transitions of development around the world are scenarios that call for stimulation and re-orientation of global implementation of environmental education in schools in order to reduce environmental abuse and degradation in our contemporary world.

The rest of the paper is structured into six sections as follows. The immediate section considers the concepts of environment and education, section three dwells on environmental education-its

origin, approaches, goals, importance and challenges. Section four considers environmental hazards and problems as well as the consequences and remedies; section five discusses environmental sustainability. Section six is the conclusion.

2.0. Concepts of Environment and Education

2.1. Concept of Environment

There are different definitions of the concept of “environment” by different scholars, organized bodies and agencies. For instance, the Advanced Learner Dictionary by Hornby (2005) defined environment as “the natural world in which people, animals and plants live”. Kwakfwaan and Gwang (2011) defined the environment as “a consideration of the properties and the interplay of all the elements that make up the earth- the hydrosphere, the biosphere, the lithosphere, and the atmosphere. They concluded that the environment includes water, air, land and physical properties and the interrelationships that exist among and between them and human beings, other living creatures, plants and microorganisms. Thus, the environment is the sum total of all physical, biological and ecological factors.

According to Yavyar and Tyav (2013), environment refers to the “sum total of all conditions that surround man at any point in time on the earth’s surface”. Ityavyar and Tyav (2013) asserted that the term “environment could be perceived as “the aggregate of external conditions that influence the life of an individual or population, specifically the life of man and other living organisms on the earth’s surface. Therefore, environment could be perceived as “the aggregate of external conditions that influence the life of an individual or population, specifically the life of man and other living organisms on the earth’s surface. Ityavyar and Tyav (2013) defined environment as the “totality of space, time and socio-cultural settings of man and other living organisms therein”.

Sonowal (2009) argued that the environment is an interactive entity and could be cited as the other side of life in the sense that the very basic support system for life is provided by environment only, in one way or the other. Osuntokun (1997) in Waila and Tini (2011) sees environment as the “sum total of all external condition which may act upon an organism or community, to influence its developments or existence. Adegoroye (1997) as cited by Waila and Tini (2011) sees environment as “the aggregate of the physical and biological entities outside of man and supporting the existence of man whether on land, in water, and air”. This definition explains environment in terms of its function. Environment could also be seen as “a community of organism with complex levels of interactions between the past creation and the unforeseeable future” (Osuntokun 1997). Waila and Tini (2011) see environment as the combination of the physical and biological entities which support the existence of mankind.

According to Akpofure (2009), everything that affects an organism during its lifetime is collectively known as its environment. He defined environment as the sum total of all external conditions that affect the growth and development of all living organisms. These external conditions may be the air we breathe, the soil on which we stand, or organisms live in, the water we drink or organisms live in, living and non-living things around us. According to him, the basic components of the environment are: atmosphere or the air; hydrosphere or the water; and the living component of the environment or the biosphere. The dimensions of environment have been identified to include social environment, cultural environment, moral environment, physical environment, home environment, psychological environment, behavioral environment, geographical environment, chemical environment, and biological environment (Adedeji and Eziyi 2010; Mbalisi and Ugwu, 2012).

2.2. The Concept of Education

Robinson and Davidson (2007) in Kwakfwaan and Gwang (2011) define education as the process of teaching, receiving instruction, and the process of training and improving...” Hungerford and Volk (nd) are of the opinion that the ultimate aim of education is, shaping human behavior. Societies throughout the world establish educational system in order to develop citizens who will behave in desirable ways. In education, some of the desired behaviors are sharply defined, for example, skills useful in reading and mathematics. Other desired behaviors are more complex, for example, successful consumerism, productive employment, and responsible citizenship. According to Obanya (1980), education means more than literacy, numeracy, possession of skills, acquisition of knowledge, ability to memorise and recite facts and figures, or even schooling. The major characteristics of education are:

1. Its emphasis on development (implies all-round development of the individual).
2. It prepares one for life in society (implies learning to survive in a given society by acquiring knowledge and skills, earning a living, taking care of oneself, understanding one’s right and responsibilities and contributing one’s quota to the development of the community).
3. Education is a continuum that runs from the cradle to the grave, and that the years spent on formal schooling, or on apprenticeship schemes, are only a point along the continuum.

3.0. Concept of Environmental Education

Global interests about the predicament of the environment, especially in the face of prevailing mass poverty, disease, filth, malnutrition, hunger, population growth, unemployment and pollution of air, land and water, have made it compelling for most countries of the world to embrace environmental education as a precondition for environmental quality. This is based on the belief that environmental education will most likely improve public awareness, engender eco-friendly attitudes, and develop management skills and strategies that will minimize environmental damage (Anijah-Obi, Eneji and Ubom, 2013).

Environmental education desires much attention due to the environmental challenges facing the society, most especially the developing nations of which Nigeria is not an exception. Education seem to be the major tool to combat environmental degradation, climatic challenges, flooding, and indiscriminate dumping of refuse, poor knowledge of refuse disposal, unhygienic living, and unkempt environment (Akomolafe,2011).The Tbilisi Intergovernmental Conference on Environmental Education (1997) defined environmental education as a process of developing a world population that is aware of, and concerned about, the total environment and its associated problems and which has the knowledge, attitudes, commitments and skills to work individually and collectively towards the solution of current problems and prevention of new ones. According to Obasoro, Oyinloye, Ilesanmi and Adams (2013), environmental education is concerned with the quality of human environment for healthy development as well as for healthy life. It seeks to improve the quality of the realized perpetual environment, develop understanding of the influences which restrict or modify it, by raising the quality of information and improving the capacity of acting responsibly with it, and by heightening aesthetic awareness, improving sensitivity to its less tangible qualities and develop creative responsiveness.

Lucas (1991) asserted that environmental education is characterized by its goal of providing education for the enhancement or preservation of the human environment. Stapp et al (1997) are of the opinion that environmental education is aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these problems and motivated to work towards their solution. According to

Belgrade Working Conference on Environmental Education (1975), environmental education should be an integral part of the educational process, aimed at practical problems of an interdisciplinary character, build a sense of values, and contribute to public well-being. Its focus should reside mainly in the initiative of learners and their involvement in action and guided by both the immediate and future subjects of concern. Mbalisi and Ugwu (2012) quoting United States Federal Register (1996), see environmental education as “a learning process that increases people’s knowledge and awareness about the environment and its associated challenges, develops the necessary skills and expertise to address the challenges, and foster attitudes, motivations and commitments to make informed decisions and take responsible actions.

Akpofure (2009) is of the opinion that a good definition of environmental education should encompass raising awareness; acquiring new perspectives, values, knowledge and skills; and, formal and informal processes leading to changed behavior in support of a sustainable environment. Monroe, Andrews and Biedenweg (2007) assert that environmental education is an approach, a philosophy, a tool, and a profession. They also assert that environmental education implies learning about the environment. According to Kwakfwaan and Gwang (2011) environmental education can be conceived in terms of its functionality as a pedagogical facilitation of teaching, instruction and learning, with a view to elicit desired positive responses for mutual environmental interaction/disposition. For Akomolafe (2011), environmental education is the acquisition of knowledge of how man can manage the environment to bring about comfort, healthy and worthwhile living. It is also about the study of environmental challenges. It is to prevent human factors that constitute environmental challenges, and to have awareness of the challenges to be surmounted, and however to make environment habitable for people’s survival and comfort.

3.1. Environmental Discourse and Concern: Origin of Environmental Education

Environment has become a great concern to man in recent times. Human being formerly lived in harmony with his environment, but eventually, man exerted an ever increasing influence on the environment. This created changes which resulted to the depletion, dilapidation, degradation and destruction of the environment. The attention of scholars, governments and non-governmental agencies is directed towards the need to manage, protect, and preserve the global environments (Waila and Tini,2011). Akpofure (2009) is of the view that the origin of human misuse of natural resources dates back to history. According to him, Plato complained in the fourth century B.C. that Greece was once blessed with fertile soil and clothed with abundant forests of fine trees. After the trees were cut to build houses and ships, heavy rains washed the soil into the sea, leaving only a rocky surface. Springs and rivers dried up while farming became all but impossible. This attitude of man towards the environment has continued until present. Akpofure is of the view that early efforts at protecting the environment started in eighteenth century by French and British scientists who considered responsible environmental stewardship as an aesthetic and moral priority as well as an economic necessity. These early environmentalists observed and understood the connection between deforestation, soil erosion, and local climate change.

According to Sonowal (2009), organized global efforts started with the first United Nations Conference on Human Environment opened at Stockholm in June 1972. Consequently, United Nations Environmental Programme (UNEP) was formed and International Programme in Environmental Education (IEEP) was launched by UNESCO and UNEP in January 1975. Environmental Education became centre of focus of environmental and educational movement after the Intergovernmental Conference on Environmental Education held at Tbilisi in 1977.

Also, the world conservation strategy (1980) was drawn up by the IUCM, UNEP and WWF in collaboration with UNESCO and FAO. Another important document-“North-South:A Programme for Survival”, the report of the Independent Commission on International Development Issues (Brundtland,1987), had great impact on environmental education globally. The Agenda 21, a report of the United Nations Conference on Environment and Development (UNCED) held in Rio-de-Janeiro, Brazil in 1992 calls upon the 150 members States to raise public awareness and intensify education and training related to environment and development. Environmentalists, educators and scientists through various conferences have advocated for a shift from technical and scientific solution to behavioral and attitudinal changes towards the environment through environmental education. Today, humanity has finally realized that under the present day environmental challenges, no other means is so efficient for the shift towards a principally new ethic of man-environment relations than the development of environmental culture through environmental education.

3.2. Approaches to Environmental Education

To meet the objectives of environmental education in the Belgrade Charter of 1975, various approaches have to be adopted. According to Lucas (1991), some schools may adopt an interdisciplinary approach such that environmental studies are drawn from various disciplines such as geology, economics, biology, geography and other disciplines. While some schools may approach environmental education by individual teachers providing an environmental emphasis to their own subject by the choice of example, homework exercise, and field trip.

Mbalisi and Ugwu (2012) are of the opinion that the objectives of environmental education could be achieved through formal, non-formal, and informal learning approaches.

- a. **Formal Environmental Education:** This occurs commonly in schools or certified environmental education centers with specific guidelines and curriculum. It is targeted at specific student-teacher relationships found in classrooms. It is characterized by fairly homogenous groups assembled for the purpose of learning.
- b. **Non-Formal Environmental Education:** This is an organized educational activity outside the established formal system. It is targeted at formal, homogenous groups and those who assemble themselves for reasons other than learning. It occurs in special places such as environmental education institutes, camps, non-profit environmental organizations, museums, parties, natural sites, zoos and other environmental groups aimed at educating the public on environmental issues.
- c. **Informal Environmental Education:** This is the lifelong process whereby every individual acquires attitudes, values, skills, and knowledge from daily experience and the educative influences and resources in his/her environment. It could be through the mass media, parents, friends and personal experience (Mbalisi and Ugwu, 2012).

3.3. Goals of Environmental Education

The goals of environmental education as declared in Belgrade Charter of 1975 which was modified and adopted later in Tbilisi Declaration of 1977 is to aid citizens in becoming environmentally knowledgeable and above all, skilled and dedicated human beings, willing to work individually and collectively toward achieving and maintaining a dynamic equilibrium between quality of life and quality of the environment. According to UNESCO (1986),the Tbilisi Declaration of 1977 identified the objectives of environmental education to include:

- (1) To help individuals and social groups acquire an awareness of and sensitivity to the total environment and its allied problems;

- (2) To help individuals and social groups acquire basic understanding of the environment, its associated problems and humanity's critically responsible presence and role in it;
- (3) To help individuals and social groups acquire social values, strong feelings of concern for the environment and the motivation for actively participating in its protection and improvement;
- (4) To help individual and social groups acquire the skills for identifying and solving environmental problems;
- (5) To help individuals and social groups evaluate environmental measures and education programme in terms of ecological, political, economic, social, aesthetic and educational factors;
- (6) To help individuals and social groups develop a sense of responsibility and urgency regarding environmental problems so as to ensure appropriate action to help solve these problems (Mbalisi and Ugwu, 2012).

Lucas (1991) sees the provision of education for the enhancement or preservation of the human environment as the goal of environmental education. According to Stapp et al (1997), the major objectives of environmental education are to help individuals acquire:

1. A clear understanding that man is an inseparable part of a system, consisting of man, culture, and the biophysical environment, and that man has the ability to alter the inter-relationships of this system.
2. A broad understanding of the biophysical environment, both natural and man-made, and its role in contemporary society.
3. A fundamental understanding of the biophysical environmental problems confronting man, how these problems can be solved, and the responsibility of citizens and government to work toward their solution.
4. Attitudes of concern for the quality of the biophysical environment which will motivate citizens to participate in biophysical environmental problems-solving.

From the foregoing, it can be implied that an environmentally responsible citizen is one who has an awareness and sensitivity to the total environment and its allied problems and/or issues; a basic understanding of the environment and its allied problems and/or issues; feelings of concern for the environment and motivation for actively participating in environmental improvement and protection; skills for identifying and solving environmental problems and/or issues; and active involvement at all levels in working towards resolution of environmental problems and/or issues (Hungerford and Volk, nd).

3.4. Principles of Environmental Education

The basic principles of environmental education as postulated by Akpofure (2009) are:

1. Environmental education must involve everyone.
2. Environmental education must provide lifelong information about environmental problems.
3. Environmental education must be holistic and about connections. That is, it must encourage people to think broadly, understand environmental systems, connections, patterns, and causes that environmental challenge poses.
4. Environmental education must be practical. That is, it must lead to action.
5. Environmental education must be in harmony with social and economic goals. That is, it should not be taught in vacuum but must be in line with other legitimate societal goals.

According to Obasoro, et al (2013) the components of environmental education are as follows:

- It is founded on the inseparability of the human subject and environment;

- It recognizes environment as encompassing physical, spatial, social and temporal components, along with their aesthetic, cultural, political and economic characteristics;
- It recognizes the enabling and constraining properties of energy and material resources;
- It recognizes the corresponding uniqueness of individual environments; and
- It recognizes the uniqueness of the individual and selectivity to input and output.

3.5. Importance of Environmental Education

The importance of environmental education to human survival and sustainable development cannot be overemphasized. According to Anijah-Obi et al (2013), the survival of the earth is the survival of man, and the misery of the earth is the misery of man. Therefore it becomes compelling for every citizen to be environmentally aware. The single most important activity that will enhance environmental management and sustainable development in the medium to long term is environmental science education. Akpofure (2009) summarized the importance of environmental education as follows:

1. The knowledge of environmental education will promote worldwide public awareness of environmental problems and issues, and support for environmental protection.
2. Environmental education promotes critical thinking and reflection on natural resource utilization.
3. The knowledge of environmental education will promote responsible environmental behavior among the citizenry. Where responsible environmental behavior is defined as actions taken by individual or group of individuals to do what is right to protect the environment.
4. The study of environmental education will promote sustainable development. Sustainable development is very relevant to the survival of humanity and the survival of the planet earth.
5. Environmental education helps to encourage dialogue and negotiation in decision-making.

3.6. Challenges of Environmental Education

In a study conducted by Waila and Tini (2011), the following factors were found to militate against environmental education: inadequate trained and qualified teachers, lack of elaborate curriculum on environmental education for schools, unavailability of school programme on environmental education for students, inadequate programme communication on environmental education and absence of organizations to create environmental awareness in schools. An observed challenge of environmental education is that the recommendations of National Policy on Environment (1989) have not been fully implemented, hence, the poor attitude of citizens towards the environment in Nigeria.

3.7. Policy Issues on Environmental Education

The National Conservation Education Strategy (NCES) directed the infusion of environmental education elements into school curricula at all levels, starting with the citizenship education curriculum and the introduction of environmental education in Nigerian Universities. Agenda 21 also presents the programme of actions for achieving sustainable development in the 21st century. The major areas of emphasis for environmental education as adopted in the global environmental action plan for the 21st century are: to reorient education towards sustainable development, to increase public awareness and to promote training (Grubb, et al(1995).

The National Policy on Environment (1989) recommended that government shall:

- a. Promote comprehensive curriculum reviews that integrate environment and development concepts in the educational systems;

- b. Support the development of courses and programmes leading to the award of degrees and diplomas in environmental education, environmental sciences, and management and technology;
- c. Encourage practical training programmes for graduates of tertiary institutions to prepare them for labour market requirements and creation of sustainable livelihoods;
- d. Strengthen vocational training that facilitate the development and assimilation of environmentally sound, socially acceptable, appropriate technology and know-how;
- e. Establish and support centres of excellence in interdisciplinary research and education in areas of environment and sustainable development;
- f. Emphasize training and retraining of teachers, administrators and educational planners in environmental education and development issues;
- g. Assist schools to design and sustain environment related activities, including establishment of environmental awareness clubs and associations;
- h. Support public participation activities covering formal and non-formal education and training to help carry out needed changes or strengthen values, knowledge, technologies and institutions with respect to priority issues and also to support active concern for the quality of the environment among others (MDG Report, 2006; in Anijah-Obi et al, 2013).

4.0. Environmental Problems and Hazards

Technological advances in agriculture, industry, and transportation have greatly improved man's way of life. However, these activities, while providing the raw materials for production of goods and services have also resulted in the pollution of land, atmosphere, vegetation and rivers (Okojie, 1991; Babalola, Babalola and Okhale, 2010). Environmental problems are global in nature and exist across national frontiers. Every state of the federation suffers from one form of environmental problems or the other in varying degrees. The Northern part of the country is being literally "blown away" by wind erosion while the Southern part is being washed away into the ocean. Akpofure (2009) lists pressing environmental problems that are crying out for attention to include: (1) depletion of non-renewable resources such as coal, crude oil and natural gas which provide about 80 percent of global energy. Supplies of these fuels are diminishing and at an alarming rate. (2) Climate change which results from global warming (3) Increasing human population (4) Food shortages and famines (5) Solid and hazardous wastes: urban solid wastes refer to wastes arising from domestic, commercial, industrial and institutional activities in an urban area, while hazardous wastes refer to one that poses a substantial hazard to human health or the environment when improperly treated, stored, transported, disposed off or mismanaged. Solid waste is visible in most cities in Nigeria with the attendant effects and (6) Atmospheric turbidity: this refers to air pollution.

Other identified environmental problems, include slums and squatter developments, urban sprawl, resulting from absence of updated master plans, pollution of land, air and water, urban flooding and erosion; destruction of forest, oil spillage, indiscriminate bush and refuse burning, environmental degradation and unsanitary conditions, acid rain, depletion of stratospheric ozone resulting from chemicals emitted into the atmosphere, desertification (that is, the conversion of productive crops land and grazing lands to deserts), biodiversity depletion (that is, lost of species) and environmentally harmful forms of economic growth (Kwakfwaan and Gwang,

2011; Babalola, Babalola and Okhale, 2010; Ibrahim and Babayemi,2010; Akomolafe,2011; Adedeji and Eziyi, 2010).

4.1. Causes of Environmental Problems and Hazards

Babalola, Babalola and Okhale (2010) are of the opinion that poverty and illiteracy are directly linked to the current level of environmental pollution and degradation. According to them, the poor and the illiterate are often more interested in issues related to their daily survival than environmental management, this lack of interest and awareness often lead to more reckless environmental behavior which in turn breeds more environmental problems and leads to a vicious cycle of poverty. Kwakfwaan and Gwang (2011) assert that corruption and mismanagement of the wealth of nations with impunity are the cause of environmental degradation. Other causes identified by them include: rapid population growth,simplification and degradation of parts of earth's life support system,widespread use of relatively cheap and environmentally damaging fossil fuels (e.g. oil and coal), rapid and wasteful use of resources with too little emphasis on pollution prevention and waste reduction, over use and degradation of global common property resources, which are owned by none and available to all,failure to encourage earth-sustaining forms of economic development and to discourage earth-degrading forms of economic growth and our urge to dominate and manage nature for our use.

Other causes of environmental problems include: the abysmally low level of environmental consciousness of Nigerians (Ayiboye and Ajitoni, 2008), industrialization and overpopulation, inefficient waste management systems, emissions from automobiles, industrial plant and power generating sets, gas flaring, weak institutional and regulatory frameworks for enforcing appropriate legislations, absence of efficient storm water discharge system, ocean surge due to rise in sea level and indiscriminate destruction of vegetations for fuel and construction materials; installation of infrastructure, agriculture and mining activities. (Chakkaravarthy, 2003; Ayiboye and Ajitoni, 2009; Adedeji, et al, 2010).

Adebayo (2004) identified five factors as being responsible for environmental problems. These include: (1) **Selfishness:** Politicians are afraid of implementing environmental policies (2) **Greed:** Lobby by the industrialists (3) **Ignorance** (4) **Short-sighted viewpoints:** Few are aware of the proportions of the potential tragedy and (5) **Self-Centred Attitudes:** The problem is global and the solution cannot be other than global. Ityavyar and Thomas (2013) argued that wars and conflict situation expose the environments to grave threats of wide nuclear explosions and radio-active contamination and the use of chemical and biological weapons.

4.2. Consequences of Environmental Hazards / Problems

Health related environmental problems have resulted in millions of deaths and myriad of illnesses such as typhoid, cholera, river blindness and guinea worm, poor environmental sanitation, exposure to communicable diseases, poor personal hygiene, and malnutrition which reduces resistance to diseases especially among the vulnerable groups which include children, women and the aged (Babalola, et al, 2010). According to Adedeji and Eziyi (2010), the effects of environmental problems are as follow:

- a. Slums and squatter developments enhance rapid deterioration of physical environment and provide breeding ground for prostitutes, criminals, and social miscreants.
- b. Urban sprawl results in depletion of green areas and open spaces resulting in the loss of biodiversity, air pollution and traffic congestions due to increasing use of private automobiles.

- c. Pollutions due to inefficient waste management systems pose health risks to human, terrestrial and aquatic lives. Indiscriminate disposal of solid waste on lands provides breeding grounds for infectious diseases vectors, while air pollution results in acid rains. It also contributes to global warming by depleting the ozone layer. Oil spillage is a threat to the livelihood of oil producing communities.
- d. Urban flooding and erosion due to absence of efficient storm water discharge system have led to the destruction of human lives, properties and means of livelihood as well as public infrastructure, leading to economic losses. There is also the destabilization of the ecosystem due to destruction of plants and animals.

Chakkaravarthy (2003) is of the opinion that physical hazards in the environment may cause death, disease or disability. Reduced metabolic rate, oxygen consumption, respiration, heartbeat, and blood pressure are affected by temperature, which keeps oscillating because of excessive environmental pollution. While the social and psychological consequences of environmental hazards include noise, overcrowding, lack of privacy, lack of opportunity for social interaction, lack of open space, boredom, compulsory leisure, traffic and estrangement from the conditions and natural cycles under which human evolution took place.

According to Ibrahim and Babayemi (2010), environmental problems frustrate efforts directed at safeguarding the health of citizens.

4.3. Control Measures for Environmental Sustainability

According to (Babalola et al, 2010), to prevent or reduce environmental problems and the attendant consequences, the government should provide adequate funding for agencies concerned with environmental management and ensure proper implementation of programmes and policies. The media should intensify their efforts at public enlightenment by presenting environmental information in the local languages so as to remove language barrier. Particular emphasis should be placed on the effect of domestic activities on global ecological climate. Government should ensure the incorporation of environmental education into the school curriculum at all levels

Again, Rowntree, Lewis, Price and Wyckoff; Miller (1996), Dachal and Guse (2008) and Kwakfwaan and Gwang (2011) to sustain the society, there is need to: reduce the wastes of matter and energy resources, place more emphasis on pollution control and waste reduction, make things that last longer and are easier to reuse, recycle, and repair; shift to more dependence on locally available renewable energy from the sun, wind, flowing water and biomass, help sustain earth's biodiversity with emphasis on protecting vital habitats for wild species, use potentially renewable resources such as water, soil, plants and animals no faster than they are renewed, use or modify economic and political systems to develop a mix of economic incentives, taxes, and regulation that reward earth-sustaining behavior and that discourage earth-degrading behavior, slow down the rate of population growth and reduce poverty.

Ityavyar and Tyar (2013) have opined that: One, urban development planners and related agencies of government should continue to sponsor jingles on radio and television houses on why it is not proper to build houses on flood areas. Two, prompt legislative framework should be put in place to make laws that would tackle headlong issues of noise pollution in Nigeria and the education of moral farmers on how to apply fertilizers and other related inputs should be emphasized to reduce health hazards involved. Waila and Tini (2011) suggest the following as strategies for improving environmental conditions: encouraging environmental sanitation through community mobilization and orientation, educating people, and health inspection, siting factories on the outskirts of towns to minimize pollution, enhancing environmental sanitation by

providing required operational facilities and equipments and controlling of human activities which may lead to environmental degradation.

Adedeji and Eziyi (2010) gave the following suggestions to address environmental issues/problems in the Nigerian society. First, there is need for comprehensive rural infrastructure provision as this will help bridge the gap between urban centres and rural areas. This will also promote the establishment of agro-based industries, provide incentives for younger people to go into agricultural activities and make life worth living in rural areas; this will in turn lead to a reduction in rural-urban drift, as well as a reduction in the rate of urban population growth. Second, there is need for remodeling of urban transport system from automobile-based to pedestrian, bicycle and mass transit system. This will reduce the problems of air pollutions, traffic congestion, and high energy consumption. The imposition of special tax on private cars in big cities in Nigeria will help to achieve this objective. Three, there should be the provision of both closed storm water drainage and open drain systems as this will help check perennial urban flooding in Nigerian cities. Moreover there is need to increase the level of green areas and open spaces. This can be achieved by encouraging people to plant trees, ornamental plants and establish horticulture gardens around their buildings. Lastly, there is need to monitor construction companies to make sure that the activities from construction companies do not have adverse effects on the environment within, around or distance from the construction site.

5.0. Environmental Education, sustainability and Human Survival

Environmental challenges constitute a major threat to human survival in the twenty-first century. Environmental problems are global in nature and exist across national frontiers of which Nigeria is not left out. According to Mbalisi and Ugwu (2012), the environment is a broad and comprehensive term denoting all that surrounds human: air, water, soil and light. It is a condition or circumstance that affects living being. It consists of all external factors and forces with which one interacts from conception until death. It includes the physical, chemical, biological, psychological and socio-cultural dimension and everything that makes up the context in which the individual lives. According to Encyclopedia Britannica Online (2008), the environment has been traditionally regarded as a reservoir of unlimited resources to be exploited and managed for human purposes. This human-centred perception of the environment was blamed because it led to development models which addressed growth at the cost of environmental conservation resulting in global degradation of resources ultimately culminating in severe depletion of basic resources such as soil, land, forest, and water which are basic requirement for human survival. The degradation of environmental resources results in the contemporary global environmental problems such as climate change, global warming, acid rain, ozone layer depletion, pollution, green house effect, erosion, desertification, biodiversity loss and so on.

According to Chakkaravarthy (2003), the very basis of human survival hinges on the sustainable inter-linkages with the environment. The present day scenario is different due to the over manipulation of the environment by man. The ever increasing problems due to pollution are leading to various environmental hazards that are detrimental to human survival. There is need for a sustainable development to ensure the continued existence and survival of human. The issue of sustainable development has to do with striking a balance between development aimed at upgrading the quality of life, and the conservation of our environmental quality. The United Nations in 1990 defined sustainable development as the development that meets the needs of the present without compromising the ability of future generations to meet their needs. It is the process by which the exploitation of natural resources and the present means of achieving development do not reduce or limit the potential for meeting the needs of the future generations.

Accordingly, sustainable development is a notion, a movement and an approach which has developed into a global wave concern, study, political mobilization and organization around the twin issues of environmental protection and socio-economic development (Akpofure, 2009).

5.1. Concept of Development and Sustainability

Development involves a profound transformation of the entire economic and social structure of a community whether regional, national or international. Development could also be perceived as a multi-dimensional process involving the re-organization and re-orientation of the entire economic and social system (Brant Report 1980, in Akpofure 2009). The concept of sustainability is used to describe situation which can continue for a long time without being discontinued because of one constraint or the other. Sustainability is usually addressed in terms of social, cultural, political and ecological sustainability. Social sustainability is concerned with specific social structure, while ecological sustainability is used in terms of natural resources used either in a specific project or broader programme of human activities (Akpofure,2009). Some unsustainable environmental practices in Nigeria that are inimical to human survival as put forth by Akpofure (2009) include:

1. Bush burning: This leads to loss of vegetation, destruction of wildlife and production of gases such as carbon-dioxide and carbon-monoxide. Bush burning is the greatest contributor to biodiversity loss.
2. Indiscriminate dumping of urban solid waste: It is unsightly, has potential of promoting diseases, increases the incidence of flooding, and hinders economic and social development.
3. Indiscriminate felling of trees: This leads to deforestation, desertification and flooding.
4. Fisheries exploitation: Fishing with destructive fishing methods, use of dynamites and poisons are highly unsustainable practices.
5. Conflict over natural resources: Conflicts over natural resources like oil have resulted in the death of many persons, which is an unsustainable practice.

To achieve sustainable development, the following are necessary:

- Education is a necessary tool for achieving structural changes needed in the socio-economic and political spheres.
- Promotion of cleaner production practices. This is important in order to minimize waste generation, pollutants and other factors that could pose risks to human health and the environment at large.
- Promotion of local traditional/indigenous technology and access to environmentally friendly technologies.
- Poverty alleviation or eradication strategies.
- The practice of participatory approach. This allows the communities to identify, plan, execute and manage projects themselves.
- Conservation of natural resources.
- Restructuring government and legal reforms.
- Effective waste management practices.

Sustainable renewal of our natural resources and environment would contribute significantly towards re-changing and re-positioning our environment to support wealth creation, employment generation, poverty reduction, growth and sustainable development (Anijah-Obi et al, 2013).

5.2. Environmental Education and Human Survival: The Way Forward

The importance of environmental education in addressing the issue of human survival in the environment cannot be overemphasized. Environmental education creates the awareness that will enable the individuals understand how to relate and apply the knowledge of environment to their actions and to the world around them. According to Obanya (2000) in Ayeni (2010), developing higher education research will enhance a total commitment to sustainable human development for the survival of humanity. According to Adesina (1988) in Obasoro et al (2013), environmental education is essential to developing a healthy and sustainable society. Many of our current environmental problems are due to wide spread of ignorance of basic ecological facts of life. Education for environment touches all facets of human life – ecology, transport, energy, living conditions, nature/resources, regulation/innovation, working life, organization, population, food and production. With proper and intensive environmental education, citizens will manifest responsible environmental actions and sustainable lifestyle.

Environmental awareness is a pre-condition for pre-environmental behavior and sustainable environmental management. The quality of life is directly related to the quality of the environment. Human existence and survival is predicated on, and as well, supported by the environment. If we fail to sustain the environment, the environment too will fail to sustain us. Thus, emphasis on the need for environmental education for human survival is of utmost importance. Various ways in which environmental education for human survival include:

- (1) Environmental education should be incorporated into the school curriculum at all levels of education in order to build a generation of environmentally conscious citizens.
- (2) Government should prioritize provision and adequate funding of both public and school libraries because they are veritable sources of environmental information and vehicles of public enlightenment, and personal development (Babalola, et al 2010).
- (3) Seminars and workshops should be organized for all teachers at all levels on the importance of environmental education and
- (4). Ministry of land, culture, natural resources and tourism should create an avenue where interested students would have opportunity of reading courses in environment and education on scholarship or fellowship (Obasoro, et al 2013).

Lucas (1991) advocated the use of mass media. According to him, mass media can be utilized in two ways. Firstly, by presenting planned instructional materials with specific learning goals; and secondly, by the production of entertainment material which also helps people think about relationships between humans and the environment in which they live. He further advocated that, education for the environment should not be directed at school children alone, because they are not in a position to make many of the decisions needed to preserve the present environmental resources, rather it should deliberately attend to public education on a broader scale. According to Anijah-Obi et al (2013) , it is through education whether formal or informal that the multifarious and multidimensional human problems including poverty, ill-health, unemployment, malnutrition, over-population, disease, filth and so on can be tackled. Hence, they suggested that environmental education can be promoted in the following ways:

- Integrating environmental education into university general studies (GST) programme. This can be further enhanced by developing a uniform environmental education course material for the General Studies (GST) programme to be used by all universities.
- Make environmental education a mandatory course for admission into the university or tertiary institutions, and even a pass in Environmental Education in JAMB should be made compulsory. This will make everybody become environmentally aware.

- Mount “train-the-trainer” workshops in environmental education in all states of the federal.
- Develop educational resources that can be used both at home and at formal school level for creation of environmental awareness.
- Retain teachers to supply effective manpower for development of environmental awareness.
- Involve corporate bodies (banks, oil companies, etc) to increase their social responsibilities in the area of environmental awareness creation.
- Devote a significant part of national budget to national environmental awareness creation.
- Ensure that political decisions reflect more concern for environmental sustainability.
- Educate the people on sustainable consumption behavior.
- Use community penetrating strategies to achieve desired results.
- Establish adult literacy classes geared towards making every member of the society environmentally literate with a view to promoting the productive power of every citizen for rural transformation and sustainable development and lastly
- Identify perceived needs of communities and establish skill-upgrading and training programmes for farmers and craftsmen, thereby promoting better living within the communities.

Waila and Tini (2011) advocated that curriculum should be developed on environmental education for schools. The curriculum should include topics such as environmental concepts, management, protection and preservation, skills, values and participation, to enhance environmental sensitization for effective management and protection. Programmes such as public lecture, mass mobilization and orientation, and meaningful film shows on environmental issues should be organized in schools, community, township, wards and villages as these will help to enhance environmental education. Ajiboye and Ajitoni (2008) are of the view that environmental education should involve strategies and learning experiences that are planned, focused, experiential, participatory, anticipatory, and cumulative. In fact, all students should have access to learning about the environment.

6.0. Conclusion

The environment affects everyone. The world is being threatened everyday owing to man’s activity and actions as well as man’s ‘inactivity and inactions’ and man risk the danger of early extermination and extinction. The quality of human lives depends on the quality of the environment, and the quality of the environment depends on the level of environmental awareness among the citizens. Hence, the need for environmental education, as this will help to expose man to sustainable and unsustainable environmental practices. Through adequate environmental education, man would be able to manifest responsible environmental action and behaviour that would result in sustainable lifestyle choices such as selective utilization of resources; reduction in the rate of waste generation; identification of alternative sources of resources; regeneration of already utilized resources or their alternatives (Mbalisi and Ugwu 2012); and educating others on the need to imbibe worthwhile environmental behaviours. With these in place, there will be environmental sustainability that will bring about human survival.

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