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EVOLVING A SUSTAINABLE ENVIRONMENTAL EDUCATION PROGRAMME IN  
NIGERIA:  
SOME ISSUES FOR CONSIDERATION

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ABSTRACT

*The environment is the most viable reservoir of learning resources in addition to its teeming aggregates of natural resources which are needed for the sustenance of life. The destructive exploitation of these resources is already exposing the environment to the deleterious effects of ozone layer depletion, emission of green house gases, flooding, as well as pollution. Worst still, environmental awareness in the country is mainly created through political initiatives and jingles. At the school front environmental concepts are merely studied in cross-curricula units in a few subjects. The paper advocates the evolution of a separate curriculum for environmental education where it will be studied as a strategic curriculum subject. Under this design learners would be able to recognize and internalize values, conceptualize, develop relevant skills and attitudes as well as formulate an enduring code of behaviour that would elicit sound judgement in handling matters concerning the utilization of environmental resources.*

INTRODUCTION

The philosophy of education for Nigeria which aims at the acquisition of science and technological (and now being extended to include computer) literacy is indicative of the visionary capacity of those who evolved and packaged the educational philosophy of the country. The fundamental subjects of this philosophy as entrenched in the National Policy of Education (NPE) 1977 (revised 1981), and studied through the 6-3-3-4 education system include:-

Core Subjects  
Mathematics  
English

Pre-vocational Subjects  
Woodwork  
Metal work

Non-vocational Electives  
Arabic Studies  
French

Nigerian Languages(2)  
Sciences  
Social Studies  
Art and Music  
Religion  
Physical Education  
Pre-vocational Subjects

Electronics  
Mechanics  
Local Craft  
Home Economics  
Business Studies

National Policy on Education (1981) P.17.

However, as promising as the lofty ambitious provisions of the NPE was, it is observed that the document is silent on the need for basic Environmental Education (EE) in the country which would have equipped the citizenry with basic environmentally-friendly concepts, attitudes and orientation that would predispose them towards sustainable exploitation of expendable natural resources. The primary school curricula casually exposes pupils to rudimentary aspects of environmental studies in social or nature studies, health (science) education and agricultural science. The SSCE WAEC syllabus also has no environmental education as a strategic curriculum of instruction and evaluation. Rather EE occurs as elements of cross curriculum with relevant concepts scattered in biology, agricultural science, geography, physical and health education and sometimes in economics. Credence is only put on environmental issues or disciplines at the tertiary level of education. This means that a substantial number of learners who pass through the Nigerian System of Education (NSE) fail to imbibe broad based knowledge on environmental issues, except by accidents of taking courses where concepts pertaining to certain aspects of EE are treated in fragments.

The ignorance consequent upon lack of veritable knowledge on the environment makes it very easy for most people to discharge waste substances or energy into the environment in quantities that may be harmful to man, crops or animals (Ndu, Asun and Aina, 1991). It has also been noted (Ukpene, 1998), that in the reorganization of certain ecological variables within his environment to satisfy basic needs, man leaves a trail of waste in his stead any day he wakes up. The seriousness of these discharge in substantial amounts have in recent times engaged the attention of governments, non-governmental organizations and individuals in both developed and developing countries. In Europe and some other advanced countries legislations on environmental issues are well mapped out and enforced to the letter. For instance a British Broadcasting Corporation (BBC) report once said that a company in Europe was charged to court for destroying the habitat of butterflies and consequently was asked to reconstruct a prototype. Also, there, EE is well integrated into the school system. National and individual consciousness and concern for the environment is generated and sustained through the formal school system beginning from primary schools to tertiary levels. In Nigeria, however, the first major awareness on environmental abuse came to focus following the importation and dumping of toxic wastes (by unknown persons) from Europe at one Nana's compound at koko port near Warri in the 80's. Unfortunately no proper investigation was conclusively done to bring the culprits to book. Grave concern for environmental issues received proper attention when a Federal Ministry of Environment was created. Following this is the establishment of the Federal Environmental Protection Agency (FEPA) and several Environmental Protection agencies (EPA) in most states of the federation. Notable observation here is that environmental initiatives have taken a political dimension rather than academic. At the state levels most EPA's are saddled with tree planting and sweeping of major streets and cleaning drainages. At the school front, pupils are seldom exposed nowadays to rudiments of environmental hygiene such as sweeping or cutting of lawns because school labourers and nannies are employed to do them. At the home front some mothers fails to teach their children basic home skills of clothes washing (the dry cleaner is always there),

sweeping, cooking or even washing the dish, bath tubs and toilets sinks because the domestic servants are always at their beck and call. The only plausible means that could therefore provide children some basic hygiene and environmental protection is the formal school system. And because matters of environmental concerns receive political considerations, more often natural and man-made disasters resulting from prospecting of natural resources are often given lip service. For instance when petrol was discovered in wells in parts of Ondo or Oyo States little was done to trace the sources so as to effect remedy. Poor crop yield attributable to environmental consequences of oil drilling have also been reported in Ibeno, Akwa-Ibom State and in the Ogoni Land (Udom, 1997), and compensations trickle down insufficiently. Pollution of farmlands and portable water sources coupled with inadequate compensations are some causes of agitations by youths of the Niger Delta areas of the country. But how much awareness have the agitated youths in the Deltas on the environmental consequences of their intentional bursting of oil pipelines and removal of oil pump head to settle scores with Shell? How much awareness has the lumberjack in the rainforest belt of Nigeria on the environmental consequences of his profession? Does the Hausa-Fulani firewood vendor understand his contribution to desertification through his insatiable appetite for wood fuels? The market women and young school kids may not be aware of the environmental consequences of the bio-nondegradable empty "pure water" bags and other refuse which they gladly discard into gutters, drains, road sides or in other unauthorized places. Answers to these observations may not likely be in the affirmative because the people concerned lack the required formal knowledge on environmental matters.

#### NEED FOR SUSTAINABLE ENVIRONMENTAL EDUCATION PROGRAMME

According to WCED, (1987), in Molonguy and Merckx (1993), sustainable development is that which meets the needs and aspirations of the present without compromising the ability of the future generations to meet their own needs. From this it can be ascribed that a sustainable environmental education programme is a set of well structured learning experiences given to learners to enable them develop the right values, attitudes, understanding and disposition towards the environment and its copious collection of natural resources. Through it, learners' attitude would change from destructive exploitation and dominance to ones of care and protection of the environment.

The deplorable state of most ecological biomes around the world as well as the depletion of the ozone layer and the attendant consequences of green house gases have started to generate grave concern for the environment among scholars and government agencies. In Nigeria, while the FEPA as well as the various state EPAs are creating the necessary environmental consciousness among some elites in the country, some traditionalists and mediocres continue to bask in profits made from their destructive exploitation of certain natural resources, unmindful of the need to employ some restraints. According to Ukpene, (1998), and Ukpene, (2001), the most auspicious strategy towards understanding the natural processes which take place in the environment as well as generate positive actions to protect and manage the environment is to sensitize the Nigerian child through various means and at various levels including the formal school system. Palmer and Neal (1994) report that in England, EE aims at: -

- providing opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment.
  
- encourage pupils to examine and interpret the environment from a variety of perspectives – physical, economic, political, technological, historical, aesthetic, ethical and spiritual.

- arouse pupils awareness and curiosity about the environment and encourage active participation in resolving environmental problems.

p.28

In Nigeria, EE has no such clearly defined and focused academic goals and aspirations because it is learned as a cross-curricular subject. It then presupposes that for meaningful advances to be noted in the areas of environmental education, the aims and objectives, curriculum as well as evaluation techniques have to be clearly outlined and taught to learners as a strategic curriculum subject.

#### MEANING, AIMS AND OBJECTIVES OF ENVIRONMENTAL EDUCATION

According to the International union for the Conservation of Nature and Natural Resources (IUCN 1970) in Palmer and Neal, (1994),:

Environmental education is the process of recognizing values and classifying concepts in order to develop skills and attitudes necessary to understand and appreciate the inter-relatedness among man, his culture and his biophysical surroundings. Environmental education also entails practice in decision making and self-formulation of a code of behaviour about issues concerning environmental quality.

Following the meaning of environmental education, the paper now proposes the following as its possible aims and objectives in Nigerian schools.

- To enable learners consider different opinions on environmental issues and to arrive at a balanced decision.
- To make learners acquire relevant skills on gathering information about the environment either individually or in mixed co-operative ability groupings.
- To make learners appreciate the inter-relationship between environmental factors and how they interact to affect one another.
- To develop a comprehensive body of knowledge about the environment, both natural and artificial, with capacity to recognize actual problems, and ability to predict potential problems or disasters.
- To make learners to critically review their actions and that of others so that positive initiatives could be taken to protect and improve the environment.

#### STRUCTURING AN ENVIRONMENTAL EDUCATION COURSE CURRICULUM

Devoid of an articulate National Philosophy on Environmental Education from which a viable teaching curriculum could be derived to produce scholars and a citizenry that are 'acquainted with the forms, styles and usefulness of their indigenous ecosystem, ecology and physiology' (Udom, 1997), the Nigerian teacher faces a onerous task in imparting to the learners, any meaningful environmental education capable of laying the foundation for sustainable development in the country. In order to resolve this notable roadblock on the path of meaningful environmental education programme in the country, it is very crucial to evolve a curriculum for the subject.

Palmer and Neal, (1994), identified three interrelated components that are basic for the planning of curriculum and learning tasks in environmental education in schools. These are: -

- i. Education about the environment,
- ii. Education for the environment, and
- iii. Education in or through the environment.

According to them, education about the environment develops knowledge and understanding about values and attitudes. Education for the environment encourages learners to explore their personal response to and relationship with the environment and environmental issues. Closely associated with this is the development of attitudes and values, including elements of human understanding and behaviour necessary for the development of sustainable use of resources from the environment. Education in or through the environment enables the learners to develop skills of investigating concepts and occurrences in the environment. Here, the environment is seen as a reservoir of learning resources.

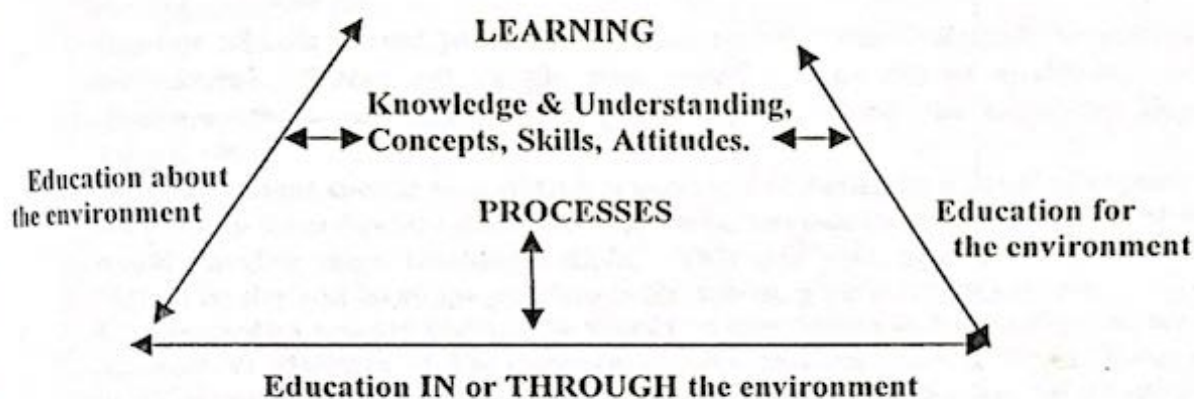


Fig 1.0 Interrelated components of environmental education (Palmer and Neal, 1994).

These components are indispensable if an all-round competence in environmental education is to be acquired. The expected behavioural outcome is for the learners to make accurate deductions and inferences about the environment. For this to be achieved, the learner should be able to develop the following aspects of behavioural changes.

- (a) Knowledge and understanding of: -
  - the natural biotic physiochemical processes that take place in the environment – climate, soils, rocks, water, minerals, plants and animals.
  - Man's impact on the environment – industrialization, road construction, urbanization, mineral prospecting etc.
  - Different ecological biomes, ecological changes and succession – Tundra, Ice caps, Forest belts, desert, desertification.
  - How human lives are dependent on resources of the environment
  - Conflicts and conflict resolutions about environmental issues.
  - Complex environmental issues such as ozone layer depletion, green house effects, acid rain, land and water pollution, global warming and flooding.
- (b) They should also be able to acquire
  - communication skills to be able to explain concepts and variables in the environment,
  - skills that would enable them quantify environmental data within limits of acceptable precision,
  - skills for studying the environment for solving environmentally related problems.

Palmer and Neal further postulate that

- (c) Learners should promote positive attitude to the environment if they are to value it and understand their responsibilities towards safeguarding it, via: -

- Appreciating, caring and having concern for the environment,
- Having respect for the belief and opinions of others,
- Mutual tolerance and open-mindedness.

## RECOMMENDATIONS

1. Environmental education in Nigeria should derive from the socio-cultural values of the various pockets of human ecological niches which abound in the country. That is, the local environmental attributes should as much as possible constitute components of the learning experiences.
2. Nigerian schools should produce educated persons knowledgeable in matters of the environment. These are people who would be capable of analyzing societal or environmental needs and develop programmes suitable for satisfying these needs (Udom, 1997).
3. The government should as a matter of necessity commission a panel of experts to work out a detailed curriculum for environmental education from which examination bodies would develop their teaching syllabi. This will give environmental education in Nigeria its desired strategic position in the learning curriculum process.
4. Environmental research institutes should be established to harmonize the activities of the Federal Ministry of Environment, FEPA and the various EPAs in the states in areas of environmental pollution, bush burning, de-afforestation, oil prospecting and disposal of sewage and industrial effluents and advice governments accordingly.
5. The law on environmental misuse, abuse, degradation and protection should be reviewed and fully implemented. The right of individuals to seek commensurate compensation when flouted should be well articulated and protected.

## CONCLUSION

The environment would continue to play the enviable role of a major reservoir of learning resources. Learners are easily attracted by components in their immediate environment and can easily build upon natural learning experiences that occur therein. Therefore, building upon the first-hand learning experiences, practical investigations and interactions with the natural and man-made environments, assisting learners to start appreciating the complex interrelationships which exist among people, culture and biophysical surroundings are fundamental starting points for the effective teaching and learning of environmental concepts. Now is the most auspicious time to make environmental education to occupy its rightful place as a strategic curriculum subject in the Nigerian Educational System.

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