

# ATTAINING ENVIRONMENTAL SUSTAINABILITY THROUGH THE FORMAL SCHOOL CURRICULUM

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## **Abstract**

*Environmental issues will continue to occupy the thinking of man on earth. That is why environmental conservation consciousness has been on the increase of late. This paper examines Sustainability of the environment within the framework of the policy goal of the National policy on environment. The major approach of attaining true environmental Sustainability has been on how to increase environmental awareness through conservation education. The interest of the authors is to address the issue of environmental Sustainability through the various forms of the formal school curriculum processes and in particular request for it to be strengthened at different levels of the pedagogical process in the Nigerian school system. The formal school curriculum therefore should serve as the instrument by which desired environmental values, skills, attitudes and positive orientation are developed.*

## **INTRODUCTION**

Nigeria is committed to a national Policy that ensures sustainable development based on proper management of environment in order to meet the needs of the present and future generations. This demands positive and realistic planning that balances human needs against the potential that the environment has for meeting them(FRN, 1989).

The fundamental thrust of the policy goal of the National policy on the environment (1 989) is to achieve sustainable development in Nigeria, by trying to:

- a) Secure for all Nigerians a quality environment adequate for their health and well-being;
- b) Conserve and use the environment and natural resources for the benefit of the present and future generations;
- c) Restore, maintain and enhance the ecosystem and ecological processes essential for the functioning of the biosphere to preserve biological diversity and the principle of optimum sustainable yield in the use of living natural resources and ecosystems;
- d) Raise public awareness and promote understanding of essential linkages between environment and development and to encourage individual and community participation in environmental improvement efforts; and
- e) Cooperate in good faith with other countries, international organizations/agencies to achieve optimal use of transboundary natural resources and effective prevention or abatement of trans-boundary environmental pollution.

This paper is written within the framework of actualizing certain objectives which include (1) Emphasizing a reappraisal of the concept of environmental sustainability; (2) to examine environmental education and the need for effective formal school curricular at all levels and (3) to consider how best to implement environmental education in schools with a view to attaining environmental sustainability.

### **Towards Environmental Sustainability**

According to Conservation Education Planning Guide (1985), wherever there are humans, there is "development," wherever there is development, humans are bound to interact with the environment. This is because people are desirous of satisfying their basic needs by harvesting and using the earth's natural resources of water, air, plants, fish, wildlife, and soil. In this process, however people can severely harm or destroy the environment that supplies these resources. Too often, human activities damage the environment's capacity to satisfy human demands; and when this happens, the quality of people lives suffer some set-backs.

Going by the current trend of development from country to country, no nation is free of environmental problems. Problems of poverty, over-population, poor planning, and an overemphasis on short-term economic gain without regard for its environmental consequences are only a few of the causes of environmental problems. The world over, national governments and Non-Governmental organizations (NGOs) have come to the realization that improved management of their countries' natural resources implies an improvement in the lives of their citizens (UNESCO 1981).

On the strength of this, International aid Agencies have also been increasingly addressing environmental issues across the globe. Their assistance include designing environmentally sound development projects, encouraging appropriate technology alternative, funding

technical training programmes, conducting environmental research. The essence is to ensure the improvement of ecological integrity. This is what brings to consideration the concept of environmental sustainability.

But before attempting an examination of environmental sustainability, it is important to shed light on sustainable development as this will give a deeper insight to the concept. Ogunyemi (2005) observed that sustainable development has meant different things to different writers. Some have tended to focus on production and therefore writers for example Stepanov (2004) and Adesanya (2004) narrowly view it as a process of achieving a buoyant economy. Other consideration of sustainable development is inclined to achieving an ecological balance or integrity. The views of the writers focus on the natural environment (Taranets and Alyona, 2004); Raheem, Hanninenl & Ogunyemi (2004). To others such as Scoullos (2004) and Newman (2004), sustainable development transcend what is expressed in the two narrow perspectives, to include all what humanity and nature require for their existence both now and in future.

In his paper titled mainstreaming Sustainable Development into African school curricula: Issues for Nigeria, Ogunyemi (2005) noted that the definition of sustainable development has been amplified to integrate issues of economic growth, social development and environmental protection following the Rio Earth summit of 1992 and Johannesburg world summit on sustainable development (WSSD) of 2002. Available documents, arising from the conferences and other International and Regional fora, suggest that sustainable development is anchored on three pillars of sustainability which are environment, economy and society. The emerging consensus shows that sustainability principles emphasize that the pursuit of economic

viability as an end itself, propelled by a neo-classical model of economics, does not maintain or enhance ecological health and human well-being as observed by Newman (2004).

Environmental sustainability as examined by Reid (1995) is an important agreement adopted in the late 1992 by the then European Community which goes beyond the emphases on pollution control and habitat protection, and calls for progress on integrating sustainable development into all areas of policy-making. It regards environmental issues "not so much as problems, but as symptoms of mismanagement and abuse. That the real problems which cause environmental loss and damage are the current patterns of human consumption and behaviour". Environmental sustainability demands for a reversal of what until recently have been normal assumptions about meeting demand, and sets a policy of reducing or restraining demand. The practical requirement of environmental sustainability includes facilitating optimum levels of reuse and recycling, rationalizing the production and consumption of energy, and altering consumption and behaviour patterns.

### **Environmental Education and the Formal School Curriculum**

The purpose and direction of the formal school curriculum in every society is a function of the ideals, values, and behaviours that each society seeks to perpetuate. Schools serve as a means for social reproduction and the school curriculum is often no more than a reflection of the dominant social, economic and political value structure. Schools and curricula undergo regular changes, but generally only in response to a major values shift in the society at large (Onwuka, 1996). Education therefore being a reactive system is dependent upon external forces and events to guide it. This is what has actually contributed to the slow trend of making environmental education curriculum functional in schools.

Nwabueze-Ezeanya (1999) pointed out that the World body at the Stockholm conference perceived an imminent catastrophe if the trend of environmental degradation was not arrested. Recommendation 96 of the conference called for the development of environmental education curriculum as one of the most critical elements of bringing control over environmental crises (UNESCO, 1983). This was the first attempt of making environmental education curriculum functional in realization that environmental crises are products of unintended effects of man's socio-economic and cultural activities. The whole essence of advocating for a functional curriculum on environmental education is to intensify the transformation of human attitudes and values towards environmental sustainability.

One basic educational principle to keep in mind is that people generally try to incorporate new information into already-held beliefs and knowledge. Based on this, Havelock (1973) opined that to accept unfamiliar ideas and knowledge, people need to adjust attitudes and beliefs. For most individuals, this is very difficult. In fact, since change can easily cause stress and confusion, most people resist altering entrenched beliefs. People should be allowed to express this resistance as this prepares them for eventual appreciation of the ideological changes later (Freire, 1970). Changing of human attitudes and behaviours takes some time. Most times it requires tutoring, and as environmental issues are so numerous, the use of the school curriculum may prove more effective. On this, Ogunyemi (2005) noted that changing human attitude within the framework of education for sustainable development (ESD) thereby reorienting existing education programmes demands rethinking and revisiting education from nursery school through university, to include a clear focus on the development of knowledge, skills, perspectives and values related to sustainability. Interpreting this according to UNESCO (2003) "means a review of existing curricula in terms of their objectives and

content to develop transdisciplinary understandings of social, economic and environmental sustainability". What is the purpose of the school curriculum? To transmit the values, beliefs and goals of the society from generation to generation.

The above indicates an urgent need to make the present school curricula at all levels to be more functional to respond adequately to the challenges of education for sustainable development in Nigeria. Curriculum according to Tanner and Tanner (1975) is a planned and guided learning experiences and intended learning outcome, formulated through the systematic reconstruction of knowledge and experience under the guidance of the school for the learner. Ogunyemi (2005) categorized such experiences into three: Programme of studies, Programme of guidance, and programme of activities. To him programme of studies focuses on the basic academic learning i.e subjects disciplines. The programme of guidance involves things like remedial support for weak learners and counseling in career choice and programme of activities involved commitment in voluntary associations, participation in community projects, drama, games and sports and other events that were traditionally termed "extra-curricula".

The challenge of the school curriculum at all levels within the context of environmental sustainability demands nothing short of an immediate review, reorientation and replanning of the present school curricula. This must be done in line with Ivowi's (1998) Curriculum building process which revolve around four basic elements. These include statement of objectives; selection and organization of content, identification of materials and methods; and evaluation of the curriculum effectiveness.

## **Implementing Environmental Education in School Programmes**

Walton and David (1982) noted that many educational strategies can be used in the implementation of environmental education in schools ranging from producing posters to developing national forestry extension programmes. Like every other facet of conservation education, implementation strategies must fit into existing environmental, political, and social situations if they are to be fully effective.

Realistically, important environmental concepts and practices can be communicated in classrooms through formal programmes of study. This information can be presented either through a curriculum as distinct course or programme approach such as mathematics or History, or it can be integrated with other study programmes, such as within science or social studies. In the United States observed Timberlake (1985), conservation education programmes usually teach students basic ecological principles and how humans affect and are affected by their environment. They also usually try to encourage students to appreciate the natural world. Some, in addition, discuss current environmental problems and how students can contribute to their resolution.

By our developing status, the best way to use the school curriculum as vehicle for improving environmental management is to teach students sound environmental practices that can solve relevant environmental problems and how such practices can benefit them. Generally, such curriculum should address the following issues according to Conservation Directory (1985):

- The natural resources that are important to the students and why;
- How these resources can be damaged by humans;
- How damaging these resources affects the students' welfare;
- How these resources should be managed;

- How to use specific environmental management techniques; e.g: planting trees, stabilizing gullies on fields, picking up litter, etc(p.67).

By the nature of environmental problems in terms of scope, impact and prevalence, they are quite transcending and the position of the writers is to strongly give further credence to the infusion approach already adopted by the national Council on Education for Environmental concepts which must be made functional at all levels of education in Nigeria. In the word of Abdullah and Olarinoye (2000) disciplines like Physics, Chemistry, Biology, Geography, Geology, Technology could all comfortably accommodate various aspects of environmental studies and that economics could use a dose of environmental component in the estimation of production costs. The best path to environmental sustainability could be the infusion approach which is widely known and strongly recommended. There is never an area in the school curriculum that environmental education cannot be accommodated.

## **Conclusion**

The concept of environmental sustainability is a major policy agenda of the new millennium. It has a close connection with sustainable development which is more embracing. To attain this concept, various scholars have advocated different approaches some of which have not yielded the required result. Since there exist a deep connectivity between human attitude and the environment, it therefore means that a change of attitude is required if this must be achieved. The position of this paper is to call for the use of the formal school curriculum as a more result-oriented approach towards attaining environmental sustainability.

## **Recommendations**

Based on what the author have written on attaining environmental sustainability through the formal school curriculum, the following recommendations are made:

- 1) The policy goal of the National Policy on Environment should be strengthened and put into functional used.
- 2) The National Curriculum at all levels of education in Nigeria should be reviewed and made to accommodate environmental elements.
- 3) The government should be more purposeful in its approach to addressing environmental issues and allow sustained and rational policies to prevail over individual groups or government interests.
- 4) Curriculum bodies should work in concert with other environmental stakeholders to ensure the full incorporation and teaching of environmental components in schools.
- 5) Intensive and vigorous mass mobilization of the public is needed to transform people's negative attitudes and perception towards the environment with a view to making the public embrace sustainable approach to the environment.

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