

## ENVIRONMENTAL EDUCATION FOR SUSTAINABLE DEVELOPMENT IN NIGERIA: A WAY FORWARD

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### Abstract

This paper provides an overview of the programme on Environmental and School initiatives (ENSI). It describes the emergency and development of an ecologically driven agenda for school change, and its rationale. The program can be interpreted as a policy response to public concerns. The idea of “sustainable development” as an education policy goal is examined in the light of these two agendas. ENSI agenda is concerned with transforming the existing structures and processing of schooling to enable students to play active role in shaping ecologically sustainable social and economic orders. The school improvement agenda is dominated by concerns about the economic performance of individuals in society. This paper also looked at the rationale, causes and need of environmental education in Nigeria. Strategies for environmental protection and management were identified. Environmental limitations were mentioned, conclusion was drawn and recommendations were highlighted.

Environment and School Initiatives (ENSI) framed environmental education as a process which involves a radical redefinition of the nature of schooling, of schools as institutions of learning of the curriculum and of the roles and responsibilities of teachers, students, inspectors, parents, lay members in the community, etc. Its framework compels us to make distinction between school development and school improvement. If you look at what passes for the latter few of these boundaries are transgressed. Rather, they are reinforced by such devices as prescribing the curriculum as a systematic organization of subject matter to be learned, specifying standards for school subjects as

outcome measures, regular testing of outcomes, public reporting of test results as basis for parental/student choice, external inspection, casting students parents and employees in the role of outsiders as passive consumers rather than active participants in shaping and developing the processes of schooling.

School improvement of the kind depicted stems from policy frameworks which mobilize the traditional concept of standards and link it ideologically to the crisis of national wealth creation in the fact of globalization, to the need for competitive advantage in International Market. School improvement is conceived as the process of driving up standards to enhance the economic performance of the nation state. The belief that educational standards are the key to limitless economic growth does not need evidence to sustain it. What sustains it is the relief from panic and comfort it brings in the face of uncertainty.

Even if there is evidence that educational standards as traditionally defined are the key to wealth creation, we may still ask why the latter should be the primary purpose of education, but we usually don't. We simply believe in the possibility of unlimited economic growth as an indispensable condition of the development of the good life, defined as a life of infinite consumption within a free, domestic, just and equitable social order. Again, we believe this in spite of the evidence that economic growth is often accompanied by mass unemployment, increasing social inequalities and marginalization and a widening of the goal between rich and poor (Rist, 1997). We do so by acting as if limitless growth can be sustained

to a point when one day there will be abundance of riches for all to share (Rist, 1997) We do so by acting as if limitless growth can be sustained to a point when one day there will be abundance of riches for all to share (Rist, 1997).

Following the “complexity and Environmental Education” conference in Italy, a group of Italian teachers embarked on a project to describe the qualitative dimensions of environmental learning termed from a concern about the pedagogical learn in terms of a few measurable indicators. Their search to identify those qualitative dimensions as opposed to quantitative indicators, rested on a holistic conception of the development of environmental awareness, one which acknowledged the complexity of human transactions with the environment (Meyer, 1999).

Environmental School Initiative Programme includes the following:

1. Changing the mainstream curriculum to foster interdisciplinary inquiry into environmental situations that concerns local communities which enables students to become aware of the complex interactions between the global and local factors operating on them.
2. Developing the school curriculum in ways which (a) do not simply assimilate environmental education to the traditional subject-based organization of the curriculum and the mode of passive learning and corresponding form of assessment this so often entails.
3. Changing the culture of teaching and learning in ways which develop those dynamic qualities of citizen that enables students to accept responsibility for the environment, and to collaborate with others on initiative to improve the quality of their transactions with it.
4. Fostering school-community collaboration on environmental initiatives by constructing inter-personal and inter-

agency networks which cross the tradition socio-organizational boundaries between community services, interest groups and knowledge/expertise.

5. Further developing inter-school “knowledge network’s” which enable students, teachers and their partners to share their work across national and local contexts, and to learn from each other’s experiences and insights.
6. Development structure within the educational system for supporting teacher’s action research as an approach to school-based curriculum and pedagogical development.
7. Developing ways of evaluating the quality of environmental education, which are consistent with ENSI’s premises and principles and serve the joint purposes of quality development and quality assurance.

The Environmental Educators Initiative (EEI) has built capacity in the formal education system by changing existing curriculum structures, encouraging cross-curricular planning and promoting participatory and interactive approaches to teaching and learning. In addition, the EEI supports a number of pilot schools that act as leaders and developers of environmental education innovation and change (World Wide Forum (WWF) China 2002, 2003, WWF China Education Programme, 2002).

### **Rationale for Environmental Education In Nigeria**

Nigeria has a total land area of 923,773 square kilometers and is richly endowed with abundant and diverse natural resources, both renewable and non-renewable. The country is blessed with mineral, physical, biological and energy resources. The minimal wealth of the country is vast and should enable it establish a firm industrial base for rapid economic development. From the mangrove and rain forest of the south, through the various Savannah’s,

Semi-arid ecosystem of the north, the nation is richly blessed with medicinal plants, mineral resources, water, ornamental and food crops. Today, the Nigerian environment is faced with many problems across the length and breadth of the country.

The effect of major environmental problems cannot be over emphasized. However, the most worrisome of them all as of now, are the global environmental ones. The problems created by them are a threat to both aquatic and terrestrial life and can lead to their extinction. The major global environmental problems range from pollution (air, water and noise) to biological losses, deforestation and atmospheric contamination. Each particular problem has a linkage effect with another, which tends to exacerbate the effects of others thus creating waves of anxiety, worry and concern for all lovers of the environment.

Nigeria, which is our focal point, is faced with both natural and manmade hazards which include: drought and desertification, erosion, flood, seasurge, deforestation, over grazing, fire hazards and urbanization with its attendant problems. However, successive Nigerian governments have been concerned with politics of power struggle with little or no attention to environment management and protection. For instance, policies for controlling, emissions of smoke, solid wastes, preventing industrial wastes and pollution of the rivers and environment as well as the use of dangerous chemicals among others have not been pursued as a matter of priority. Our environment should be well protected and managed. Hence the need for environmental education, management and protection in Nigeria is vital. It has direct relationship with development in the areas of transportation, economy, commerce, health, and creativity and it is a source of wealth creation.

### **Environment and Sustainable Development**

According to Asoegwu, (2010:224) environmental education is the study of natural and man-made environment which has to do with the study of the significant and controversial development needs of the millennium. Thus, this could be studied under physical or social environment. The physical environment consists of the components of the vegetation, water bodies, climate and land that are visible things of nature which man appreciated and lives with. Their physical environment influences the growth, development, life and death of organisms and species. For instance, deforestation is the clearing of natural forest for industrial purposes, farming, building and lumbering without immediate replanting of new trees and this exposes the soil to rain and wind erosion because the heavy rain or wind is not intercepted by the branches, leaves and the tree roots which do absorb flow of water that gave rise to sheet erosion. This influences the environment negatively and positively. Negatively in the sense that the natural forest are destroyed, leaving bare soil to be exposed to erosion and soil becomes impoverished. Thus, the positive influence affects the economy and development because the development of industries, building, farming and lumbering will increase the economy of the nation and the inhabitants sustain their life through development. The social environment has to do with man and his capabilities, characteristics achievements and contribution to humanity in terms of provision of his scientific discoveries etc. However, this could be adversely or positively affect man's existence through activities which destroys the physical or social components of the environment.

Sustainable development implies a production level that can be borne by the ecosystem and can therefore be kept up in the long term: sustainability means the process that can be

maintained only under certain externally given conditions. Sustainability then means that development must advance at a more sustained pace until it becomes irreversible. Sustainability means durability. It is not the survival of the ecosystem which sets the limits of development but development which determines the survival of the societies.

As a result of the Rio document the commission on sustainable development (CSD) the body responsible for Agenda 21, classified NGOs as a major group responsible for this task (Germill & Bamidele 2002, Tillbury 2001).

More recently, NGOs attending the world summit for sustainable development demonstrated their role as a change agency not only through profiling their successful experiences in education for sustainability but also in influencing agendas (UNESCO 2002, UNESCO 2005, UNESCO 2006, Earth charter education committee 2002, WCN 2002). Their lobbying efforts in the lead-up to the summit resulted in education featuring prominently in the Johannesburg implementation plans as well as summit's endorsement of the United Nation's Decade of Education for sustainable development.

#### **Causes of Nigeria's Environment Problems**

There are several factors responsible for environmental problems in Nigeria. These are:

- 1, Citting of public buildings and residential quarters in flood prone areas, unsettled dup sites, improperly reclaimed and converted to plots for erection of residential quarters, public building and market stalls in ecologically semnsitive area.
2. Inappropriate agricultural practices, the destruction of watersheds, and the opening up of river banks and other critical areas leading to silting of river bed and loss of water courses.

3. Bush burning for farming and ever increasing depletion of young forest for fuel wood.
4. Gas flaring and the resultant problems of ecosystem destabilization, heat stress, acid rain and acid precipitation induced destruction of fresh water fishes and forest in the coastal areas of the country.
5. Mining waste land and mining pits without addressing reclamation as provided in the mineral acts, as in the minefields of Nasarawa, Jos, Ilesha and Enugu.
6. Poverty as a cause and consequence of environmental degradation. People harness the resources in their environment to eke out a living.
7. Invasive plants and animals locust and quela birds which seasonally devast production and farm harvest in the north. Water hyacinths impede fishing and transportation in the coastal areas.
8. Uncontrolled use of agro-chemicals and the resultant problems of chemical persistence in the soil in humid climates leading to destruction of vast agricultural lands.

#### **Other Environmental Problems Include: Natural Environmental Problems**

- (a) Drought
- (b) Desert encroachment/desertification
- (c) Flood
- (d) Erosion and land degradation
- (e) Sea surges.

#### **Human Induced Environmental Problems Include:**

- a. Massive deforestation (b) Over cultivation of the soil (c) Over grazing of soil by cattle (d) Quarrying (e) Incessant and uncontrolled bush burning (f) Pollution of water bodies (g)

Exploration for and exploitation of oil leading to oil spillage.

### **The Need for Environmental Education, Awareness and Public Participation**

Education affects socialization and behavior, hence environmental education is necessary for improving environmental quality. Generally, it is accepted that education is a prerequisite for nation building.

According to Ukeje (1989) educational system is the master determinant of all aspects of change. It has in fact come to occupy a strategic position as the central determinant of economic, political, social and cultural character of society. Right from the time of Plato, it has been the view that "what you want in the state you must put into the school" (Plato, 1875). The school, so to speak, is the factory that manufactures the society. Enlightened debates, public awareness and environmental education can lead to balanced policies which will enhance public commitment. Although people are capable of influencing their environment in both constructive and destructive ways, yet much of the influence has been in the service of making the environment less attractive. People are depleting natural resource and polluting the environment at an alarming rate and it is therefore important to educate people better in order for them to have positive attitude, commitment motivation to adopt sound techniques in managing environment.

Environmental education and awareness among decision makers will considerably help in a better integration of environmental issues into development planning, budgeting, into school curriculum and policy formulations. This will be reflected in the attitude and actions of students, individuals and government functionaries.

Without "proper" education, orientation and public awareness at all levels of society, it will be difficult to manage solid waste. Environmental education among the people

would generate environmental concern on how to protect the potentials of the environment and avoid or minimize the hazards of environmental pollution and degradation.

Finally, and very importantly, environmental education through schools and public participation in the long run can be cost-saving as expected attitude and commitment to environmental change for better. Protection of the environment and hazards of pollution would not only be minimized but the cost of the control will also reduce.

### **Limitations of Environmental Education in Nigeria**

Environmental education has not been fully integrated in the curriculum in the primary and secondary schools. In the universities and tertiary institutions, it does not go beyond the environmental sciences, physical and biological science.

Secondly, the news media and institutions have the capacity to inform, educate, arouse and create awareness but environmental problems has not been inculcated into the school curriculum and rarely do media houses educate the public.

Poverty, underdevelopment and ignorance are factors that militate against environmental education. This is evidenced by the piling of solid waste in various parts of the urban of solid waste in various parts of the urban centres. Refuse heaps have encroached on or completely blocked roads, thereby obstructing water channels. Uncontrolled refuse disposal has always been associated with serious health hazards.

There are apathy and inertia in the various level of government and most Nigerians often fail to adhere to environmental issues and protection. More disturbing is that the local governments which are at the grassroots made no provision for environmental planning and

protection. Also provisions were not made for environmental education at the grass root areas.

The low priority and inadequate attention given to environmental services is a reflection of most Nigerian's negative attitude to environmental education at the grassroot areas.

The low priority and inadequate attention given to environmental services is a reflection of most Nigerians' negative attitude to environmental education. Their major concerns are centered on obtaining the basic necessities of life and then dump their solid waste into gutters or open drains.

### Conclusion

The task of educating, protecting and preserving the entire environment is an enduring one that depends on the level of a country's socio-economic and political development. There is need to enhance environmental education programmes and public participation as it affects solid waste disposal and hazards. This can be done not only through the radio, television and print media but also through the schools, grassroots enlightenment campaigns through the Traditional rulers e.g. Obi, Ezes, Emirs and Obas for effective solid waste management requires the involvement, participation and co-operation of local communities and the government.

### Recommendations

The following recommendations were made: Government should commit itself to sponsoring more research projects into reduction of solid waste at source. There should be an efficient way of collection and disposal of waste. Primary school and secondary school curricula should have detailed topic on solid waste disposal and waste management. Make formal and informal education a clear investment priority on environment education. Promote, educate and create awareness on waste prevention, separation of waste at source of

generation and other environmentally sound municipal waste management approaches. Establish sustainable Development Units (SDU) at state Government level in line with current practice at the federal level. Institutionalize environmental responsibility through regular competitions and awards such as cleanest village in each local government area, cleanest local government in each state and cleanest state of the federation, as well as environmentally-friendly industries. Ensure full compliance with legislation and regulations and standards of the federal Environmental Protection Agency (FEPA) and the Department of Petroleum Resources.

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