

**ARTICULATING ENVIRONMENTAL EDUCATION  
IN A RESEARCH INSTITUTE: CONFLICTS,  
INSTITUTIONAL REQUIREMENTS AND TRIUMPHS\***

**J. U. EMEH**

**SARAH N. ODEN**

*University of Calabar*

**ABSTRACT**

Environmental Education as a discipline faces great obstacles in an environment where courses are already formalized and scholarly consciousness opposed to innovation programs. This article discusses the actual experiences of the authors faced with the problem of articulating Environmental Education as a formal discipline in the Research Institute of Education, University of Calabar. The conflicts generated by attempts to articulate the program, the struggle to meet institutional requirements in the face of formalized scholarly consciousness, and the subsequent triumph of the program are described. Conclusions are drawn for the future of Environmental Education in the face of competing options.

**INTRODUCTION AND BACKGROUND**

The birth of a new program, a new course of study is like the birth of a new baby. Like a new baby, it implies the existence of a resourceful mother: a conducive, open environment, acceptance, caring gesture, and the positive relationships and

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understanding that enhance formative growth. The new program, Environmental Education, emerged like a newborn baby within the environment of Institute of Education, University of Calabar. The birth of Environmental Education came as an innovation in the Nigerian school curriculum. Umoren (1995) points out that as an innovation it would involve the creative selection, organization, and utilization of human and material resources in new and unique ways that would lead to the attainment of specified goals and objectives. Its emergence, thus, implies the existence of all the conditions specified above for the survival of a newborn baby.

For the program to survive it also needs care, appropriate facilities, and needs to establish relationships with exiting formalized programs. It equally needs to be understood for what it is, as well as to by-pass all misconceptions, oppositions, and obstacles that it has to face in order to become recognized among the community of disciplines in a university environment.

The program Environmental Education emerged in an already formalized academic environment where everything reflecting the concept "Environment" already had a located department, a recognized content, recognized staff and facilities. It must either be a course in Geography, Geology, Biology, Community Health, Chemistry, or Physics. It must be in the sciences or some aspect of social sciences. It must never be in education or any of its departments. That was the reigning paradigm of the academic environment into which Environmental Education was born in the Institute of Education, University of Calabar in 1992.

The purpose of this article is to share the experiences of those who participated in the birth of this new program and to draw appropriate conclusions for implementing new programs in our formalized academic environment. It is hoped that the articulation of the actual predicament of the new program in an environment of clashing interests, doubts, and misconception of goals will offer some useful insights into the nature of implementation as one of the significant parts of curriculum process, and strengthen the hopes of those who are engaged in designing new programs, or who are on the part of implementing their own Environmental Education Program.

### **EARLY BEGINNING AND OBSTACLES**

Before 1992, Environmental Education as a discipline was non-existent in any of the Nigerian universities. The subject of environment was studied in courses in geography, biology, geology, or chemistry. There were environmental sciences offered in different faculties or departments. Two non-governmental organizations were responsible for creating Environmental Education as an educational discipline not only in the Institute of Education, but in Nigeria. The first is World Wide Fund for nature (WWF) and the second is Nigeria Conservation Foundation (NCF).

In the agreement signed between NCF/WWF on one hand and the University of Calabar on the other hand, the former was to fund the unit for 5 years (1991-1995)

to meet the recurrent and capital needs of the unit. The NCF/WWF was also to be responsible for the in-service training of University Staff for programs of Environmental Education unit now located in the Institute of Education, University of Calabar. Furthermore, the NCF/WWF advised on the Program implementation of the unit and served as a coordinator within the period covered by the agreement. The University of Calabar was, among other things, within the same period, to provide sufficient and suitable accommodation to house the Environmental Education unit and provide and pay suitable teaching and non-teaching staff for services of the unit. At the end of the joint agreement, however, the University of Calabar was to assume full responsibility for the Unit (Inyang-Abia, Oji, Obi, & Noibi, 1994, p. 4).

The World Wide Fund for Nature (WWF-UK) is concerned with the conservation of threatened or endangered species of plants, animals, and areas. In Cross River State, such surviving animals as tigers, gorillas, elephants, and monkeys, and such threatened areas as the State's remaining rain forest, attract the interest of this organization. The WWF had high hopes that the Environmental Education Unit would create a conservation system network, penetrating into the rural communities and awakening awareness among the people as to the necessity to conserve natural resources.

The Nigerian Conservation Foundation (NCF) is a non-governmental organization whose major concern is to increase awareness among Nigerians, of the need to conserve declining non-renewable resources. Since its establishment in 1982, the organization has contributed to initiation and implementation of many conservation projects in Nigeria, and Cross River State in particular (Inyang-Abia & Usang, 1992, p. 13).

### **Program Needs**

A new program faces many difficulties in its growth process. There is the need to define and conceptualize the program content in terms of objectives, structure, and processes. There is the need to inaugurate an academic body that will form a valid front for growth, research, and development of the program, particularly in the face of "doubting Thomas's" and existing, competing, formalized programs already rooted in academic culture. There is the need to enumerate specific needs of the program through need assessment procedures, and to search for ways of providing for such needs.

First, a National Conference on Environmental Education was organized by the NCF at Lekki conservation center, Lagos on March 17-19, 1993. In her speech, the acting chairman of NCF Executive Council, Ambassador Aduke Alakija, stated conference objectives to include the following:

1. to examine environmental problems (global and local) and the challenges of environmental education in Nigeria;

2. to review the position of environmental education in formal and non-formal sectors in Nigeria today and to generate recommendations;
3. to identify constraints to the development of environmental education in formal and non-formal sectors;
4. to evaluate training needs for conservation and sustainable development;
5. to evaluate research needs in environmental education; and
6. to deliberate and suggest strategies for meeting the challenges of environmental education (Alakija, 1993, p. 4).

Identifying these objectives is one of the valid ways of providing a focus for this new program.

Second, the inauguration of the Nigerian Association for Environmental Education during the conference indicated the birth of an academic front that deliberates on significant issues surrounding the emergence of environmental education. Participating in the discussion, Prof. Okebukola had noted "The presence of many organizations in Nigeria today, all talking of current views on environment without emphasis on how the subject should be approached formally or informally necessitates the need for this organization" (1993, p. 83).

This is one of the greatest problems faced by Environmental Education in the process of articulating and implementing it in the University of Calabar, or in any other academic institution. There are two principal concepts providing substance for this new program; they are "Environment" and "Education." In the domain of "Environment" many scholars are talking, researching, and providing engineering solutions to environmental problems. There are scholars in environmental engineering, environmental science, environmental geology, environmental economics, environmental protection and management. All of these have taken the physical deterioration of the environment very seriously, and are convinced that the solution is physical modification of the environment in the desired direction, or direction "protection" of the environment through proposed regulating measures. For example, those who gathered in that conference were made up of geologists, chemists, geographers, biologists, administrators, and educators. The question is: "What is education doing here as a discipline"? There is always the tendency to shift from education to the hard sciences. NCF/WWF insisted that the main thrust of the new program is educational, and that at the center of environmental problems is man who utilizes natural resources based on dominant ideas, values, concepts, perceptions, and attitudes all of which are the substance of education. To change old unsustainable concepts, ideas, values, and attitudes to positive environmental ones through educational processes is what differentiates this new program from all those listed previously talking about environmental education (NCF/WWF, Conference proceeding, 1993, p. 84). To this day, this problem persists. It appears difficult for dominant, formalized academic disciplines to agree that education has a significant role to play in solving environmental problems. Social studies, integrated science, citizenship education, and

population education all face similar problems of being accepted in their own right as having focus and substance. These integrative disciplines also frown at the idea of a distinctive environmental education.

### **Obstacles**

In terms of obstacles faced by institutionalization of this new program in Nigerian academic world, the Communiqué issued at the end of 1993 National Conference enumerated, among others, the following obstacles to the progressive existence of this new program:

1. that the national school curriculum was deficient in Environmental Education elements, which were often treated as facts rather than issues with serious implications on the environmental actions;
2. that the existing nature of training and education does not necessarily promote co-operative and sustainable living with the environment;
3. that the issues of environmental awareness apply to all actors within the Nigerian environment, and particularly the women, children, members of the uniformed forces, industrialists, and policy makers;
4. that Environmental Education in the non-formal sector as presently practiced is inadequate;
5. that there exist enormous virgin areas of research in Environmental Education which, if explored, would guide the successful implementation of the program;
6. the constraints of funds, institutional capacity, and governmental insensitivity to available research findings; and
7. the scarcity of locally produced resource materials required for effective teaching and learning of Environmental Education (NCF, 1993, pp. 85-86).

These problems are also recognized at the time by the Institute of Education Staff and the participating consultants who were involved, through the support of NCF/WWF, in the implementation process of this program.

### **Models of implementation and Triumphs**

First, there were mixed views as to what the content of environmental education must reflect: how much of it was core environmental material, and how much constituted core educational courses? The dispute about the content structure and organization is still not settled. There are Institute of Education consultants who had no knowledge of educational principles, and who questioned the role of teachers and educators in environmental engineering. There are editors who do have the content specialization in any of the disciplines of environmental studies, and who believed they could tax themselves in acquisition of enough content to carry out educational activities at specified levels. This skepticism on the part

of formalized disciplines and concern about content structure by educationists has continued to this day.

Second, the question is asked: what are we producing in the Institute of Education? Are we producing teachers, as it is the case in all educational institutions whose programs are concerned with production of teachers, or are we producing environmentalists who can work as such in any environmental unit in the various establishments? But if the program is essentially an educational program offered in an Institute of Education or Faculty of Education, then we are producing teachers who will teach a content of environmental education, adopting one or more of the strategies or techniques available to teachers. Now NCF/WWF were uncomfortable with the idea of formalization of the program where everything ends in the formal classroom. They argued that this kind of education has been going on for many years in the world's formal education system without affecting behaviors in the domain of utilization of environmental resources. They felt that environmental education must make an impact not only in the formal classrooms, but also in the community through organizing workshops and seminars for community members who daily interact with the environment.

Thus, while not preventing the articulation of a formal content of environmental education for production of teachers, they encouraged the Institute staff to organize workshops and seminars for practicing teachers, administrators, farmers, traders both in the urban and rural areas. They provided for these activities, including the establishment of environmental school clubs at both primary and secondary school levels. However, the Institute of Education, University of Calabar was determined to produce a unique environmental education program aimed at production of not only teachers but also individuals whose consciousness of environmental problems places them in a position to influence resource use, or to influence the behavior of those who are engaged in utilization of any segment of the environment.

Now, the schools do not have environmental education in their curriculum, and there are, as yet, no teachers of a formal environmental education program. Even now, authorities and organizations assert that the curriculum is over-stuffed. The Nigerian Research and Development Council (NRDC) made several attempts to clarify Environmental Education content, but has not succeeded in implementing the Environmental Education program at the primary and secondary levels of the nation's educational system.

Third, as long as NCF/WWF were funding the implementation of the new program, so long will implementation behavior be sustained. With these two organizations' support, the implementation process was relatively effective. Workshops and seminars were funded. Workshops were held for teachers, local government workers, traders, women, and lecturers in higher educational institutions. The staff of the Institute of Education began to spread the gospel of environmental education clubs in secondary and primary education. The

NCF/WWF supplied necessary equipment: cars, slides, video machines, television sets, a computer and some educational software, and some relevant reading materials. Some workshops organized for consultants were intended to produce relevant reading materials for use in the education of the people.

Fourth, after the first and second batches of Environmental Education staff trained for a 3-month period in Jordan-Hill Scotland returned, the need was felt to articulate:

1. A certificate program in Environmental Education which transformed immediately into a 2 years ordinary diploma program, and;
2. A post-graduate Diploma Programme. The two programs were to be implemented in the Institute of Education. The articulation process assumed the form of assembling curriculum experts, educational technologists, geographers, geologists, environmental health officials, physicists, and chemists. This group formulated objectives, supplied content information, and provided expert advice on the structure and organization of the content of the program. The exercise was a success, although it must be admitted that there were oppositions, skepticism, and doubts as to the appropriateness of a distinctive environmental education program.

Fifth, the arrival of a formally articulated program which was advertised and called forth a mass of enthusiastic students signaled the need for expansion of classroom facilities, provision of resource centers, and production of books relevant to teaching of environmental education. To this end, the program required two kinds of resources, which according to Cefovsky (1977) are:

1. inanimate resources, which include publications and teaching aids; and
2. human resources, including theoretical, conceptual, and advisory specialists, as well as practicing educators, both professional and volunteer, and the learner.

The NCF/WWF responded effectively by providing funds for development of classrooms, resource centers, and production of appropriate reading materials. Experts were assembled and paid to write books on various environmental education topics covering the needs of the programs, which had been designed. In this way, 13 books were produced with additional financial support from the Canadian Government. The books covered topics in areas such as curriculum design, planning and process, community environmental education, health and environmental education, environmental perception, philosophical issues in environmental education, Nigerian environment, and others. These books were written as instructional guides with instructional objectives and assessment procedures. Today, these books stand as one of the most important, and enduring legacies left by NCF/WWF for the University of Calabar, and other Institutions throughout the world engaged in Environmental Education.

However, such resources as study kits, experimental kits, and project kits, which are essential to the effective implementation of an Environmental Education program, are lacking.

It is significant that teachers of Environmental Education at the Institute of Education, University of Calabar learn as they teach. They have to stand on their own feet since NCF/WWF support was withdrawn at the expiration of 5 years according to the agreement. These teachers have, through a series of workshops, collaborative teaching, and exchange of ideas, mastered the core content of environmental education and its methodology. There are also classroom teaching, practical fieldwork, in-house seminars, workshops, and project work by students and teachers. The University of Calabar, through the dedication of the Department of Environmental Education, in the Institute of Education, offers not only Diploma, post-graduate Diploma, and degree courses, but also higher degree in Master of Environmental Education. The emergence of the higher degree programs inspire some lecturers in the Institute to undertake courses in Environmental Education. Today, the Institute can boast of two Master degree holders and a number of post-graduate diploma staff in the discipline. In particular, the Department of Environmental Education has undertaken the training of practicing teachers in the area of Environmental Education throughout the Federal Republic of Nigeria. Some universities in Nigeria have indicated interest to adopt the Environmental Education curriculum developed laboriously by the Institute of Education. Yet, the Nigerian Research and Development Council, once in the forefront of promoting Environmental Education, seems to have fallen asleep. There is, currently, no indication that the Federal Government, through the council of education, is going to introduce the teaching of Environmental Education in the mainstream curriculum. Even most faculties, including faculty of education, view environmental education with ambivalence at a time when this form of education has taken firm roots in advanced countries of the world. Nevertheless, we think significant progress has been made.

## CONCLUSION

Wheeler (1977) asserts that Environmental Education does not only focus on imparting information and skills, but also on the introduction of people to greater environmental awareness, as well as the means of taking part in decision-making processes affecting their environment. To facilitate this, the Institute of Education, University of Calabar, has been able to mobilize both human and material resources in a bid to articulate the program. This effort has, no doubt, faced a lot of antagonism.

In spite of all these, however, a lot of progress has been made, especially in the academic implementation of the program. Much still remains to be done, and with the co-operation of all stakeholders a lot of progress could still be made, especially in the practical aspect.



## REFERENCES

- Alakija, A. (1993). Opening Address. In M. B. Lawal & A. A. Mohammed (Eds.), *Environmental Workshop and Seminar Proceedings, 1*, pp. 1-5.
- Cefovsky, J. (1977). Instructional resources for Environmental Education. In *Trends in Environmental Education* (pp. 63-67). Paris: The United Nations Educational, Scientific and Cultural Organization.
- Inyang-Abia, M. E., Oji, G., Obi, F., & Noibi, Y. (1994). *An introduction booklet of the Environmental Education Unit, University of Calabar*. Calabar: Environmental Education Unit Publication.
- Inyang-Abia, M. E., & Usang, E. (1992). *Environmental Education for teachers*. Zaria: NIRVANA Publishing Co. Ltd.
- Nigerian Conservation Foundation (NCF). (1993). *1st National Conference on Environmental Education Conference*. Proceedings organized by NCF supported by WWF-UK, March 17-19. Lagos: NCF Educational Department Publication.
- Okebukola, P. (1993). Discussion of Proliferation of NGO's on Environment. In M. B. Lawal & A. A. Mohammed (Eds.), *Environmental Workshop and Seminar Proceedings, 1*, p. 83.
- Umoren, G. (1995). Environmental Education curriculum innovations. In M. E. Inyang-Abia & G. U. Umoren (Eds.), *Curriculum development and evaluation in Environmental Education* (pp. 90-124). Lagos: Nigerian Conservation Foundation.
- Wheeler, K. (1977). National proceedings for implementing Environmental Education: A comparative study. In *Trends in Environmental Education* (pp. 213-230.d). Paris: The United Nations Educational, Scientific and Cultural Organization.

Direct reprint requests to:

Dr. Sarah N. Oden  
 Institute of Education  
 University of Calabar  
 Calabar  
 e-mail: salnoden@yahoo.com