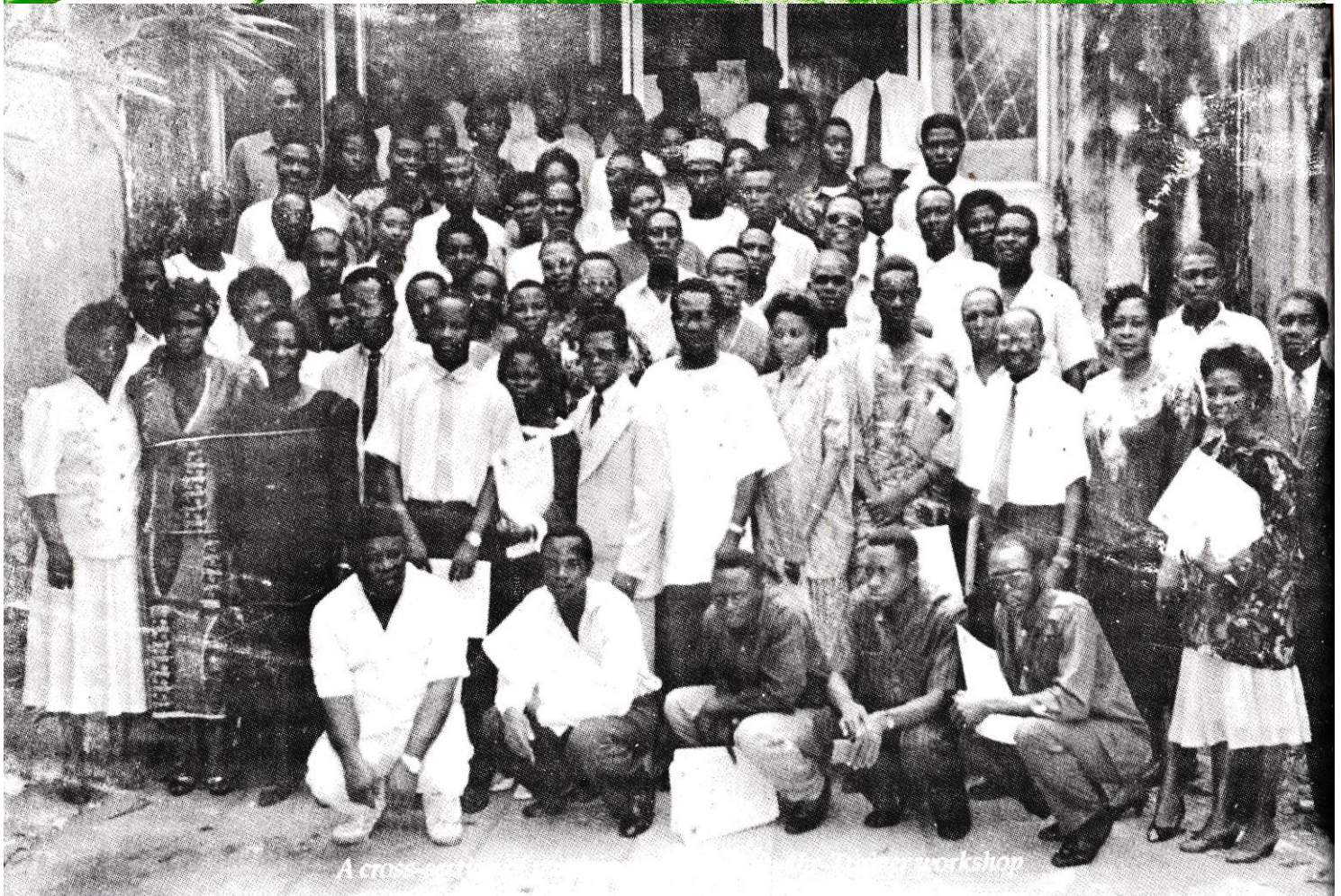


An Information Booklet of the Environmental Education Unit University of Calabar

*Prepared by
Moses E. Inyang-Abia, Gabriel O. Oji
with Florence Obi, and Dr. Yomi Noibi*



A cross-section of students and staff at the Inyang workshop



**An Information Booklet of the
Environmental Education Unit
University of Calabar**



NCF

Prepared by Moses E. Inyang-Abia, Gabriel O. Oji
with Florence Obi, and Dr. Yomi Noibi

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University of Calabar main gate

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Introduction

The Concept of Environmental Education

If Environmental Education is only described as studies about the environment then there is no gainsaying the fact that the subject has existed in the Nigerian formal school system since the advent of Western Education in the geo-polity that is Nigeria today. Subjects and disciplines such as Nature Studies, Environmental design, Natural Sciences and the like have at various times constituted part of our educational curricula. However, Environmental Education is not just studies about the environment and neither could Environmental Education be satisfactorily taught and learnt by the fragmented knowledge that the various subjects and disciplines

instanced above offer. Environmental Education in the true sense of the term is teaching and learning from, about and for the environment manifested through the acquisition and application of knowledge, attitudes, skills, and motivations for environmental conservation and protection (UNESCO) (1986). This true concept of Environmental Education is the kind that is desired and being pioneered for development and promotion in the Nigerian formal school system especially at the tertiary level by the Nigerian Conservation Foundation (NCF) under the auspices of the World Wide Fund for Nature (WWF).

1.2 Background of the Environmental Education Unit, University of Calabar

Environmental conservation is today the major focus of world attention and will,

for obvious reasons remain so throughout the remaining period of man's presence on earth. In fact, the subject has since captured the attention of the West. Conscious effort has been taken in this regard to achieve some expected result. However, in Africa, to wit, Nigeria, conservation effort is essentially a pioneering work which still leaves a great deal unaccomplished. It is, in an effort to consciously promote far reaching and enduring environmental consciousness in Africa, that the Nigerian Conservation Foundation supported by the World Wide Fund for Nature (WWF) in 1990 established three Environmental Education units in the country: at the College of Education Ekiadialor Benin City, University of Calabar and Lekki Conservation Centre, Lagos. Calabar was chosen as a natural site for an Environmental Education unit for

obvious reasons: it is situated in an area that presently holds the greater share of Nigeria's little remaining rain forest. Secondly, a National Park to conserve and protect the rich and rare diverse fauna and flora of the region has recently been established here. This development has attracted much international attention.

1.3 The Objectives of the Unit

The Environmental Education Unit is established to:

- i) develop training programmes for teachers and community extension workers in Environmental Education and run workshops and courses;
- ii) take curriculum development initiatives in Environmental Education;

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- iii) develop resource materials: teachers' manuals, teaching materials, pupil materials, resources for community education;
- iv) develop and publish resource materials in Environmental Education using in-house Desk-top Publishing Unit and other sources;
- v) develop community education in the Support Zone of the Cross River National Park and elsewhere in Cross River State;
- vi) establish a teachers' resources centre for the area;
- vii) use the Cross River National park as a "resource" in the preparation of materials and the training of teachers;
- viii) develop the institutional links already established with the Environ-

mental Education Programme of University of Strathclyde, Jordanhill Campus.

- xi) provide in-service training for staff of establishments and institutions engaged in environmental conservation and protection;
- xii) undertake as a co-curricular activity the establishment and overseeing of conservation clubs in educational institutions;
- xiii) offer sundry environmental educational services to government and non governmental agencies.

1.4 The Role of NCF/WWF and the University of Calabar

Two non-governmental environmental conservation and protection organisations: The Nigerian Conservation

Foundation (NCF) and the World Wide Fund for Nature (WWF-UK) are credited with having established the Environmental Education Unit in the University of Calabar.

In the agreement signed between NCF/WWF on the one hand and the University of Calabar, on the other hand, the former shall fund the unit for five years (1991-95) to meet the recurrent and capital needs of the unit. The NCF/WWF shall also be responsible for the in-service training of University staff for programmes of the Unit. Furthermore NCF/WWF advises on programme implementation of the unit and serves as a co-ordinator within the period covered by the agreement. The University of Calabar shall, amongst other things, within the same period, provide sufficient and suitable accommodation to

of the Unit. The Unit Co-ordinator (without prejudice to the roles of the VC, NCF/WWF, and Director, Institute of Education instanced above), is the chief executive of the Unit. He is responsible for the day to day administration of the unit and all others, both academic and non academic staff are responsible or answerable to him in the first instance. (See Appendix A)

Report of Progress (Achievements so far)

2.1 In-Service Training

The following staff from the University of Calabar and the Cross River State Ministries of Agriculture and Education have been trained at Strathclyde University (Jordanhill College) Glasgow, by NCF/WWF for effective implementation of the Environ-

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 shall assume full responsibility for the Unit.

1.5 Structural Administration of Environmental Education Unit

The Environmental Education Unit has both the Vice Chancellor of the University and the NCF/WWF jointly at the apex. Both the Vice-Chancellor and the NCF/WWF jointly initiate policies for the Unit. The Director, Institute of Education and the Education Advisory Council make input into the programme by advising the Vice-Chancellor and NCF/WWF on policy formation. The Director of the Institute of Education also oversees the co-ordination

mental Education programmes at the University of Calabar.

1. Dr. Edward Obi-Akatchack—Ministry of Education, Calabar
2. Mr. Moses Inyang-Abia—Unical
3. Dr. J.C. Adigwe—Unical
4. Mr. Ewa Usang—Unical
5. Mr. Sylvester Abu, Ministry of Agriculture, Calabar
6. Mr. Gabriel O. Oji—Unical
7. Mrs Florence B. Obi—Unical

Three additional staff of the University of Calabar from both the Institute of Education and Faculty of Education have also been sponsored by NCF/WWF in the University of Calabar during the 1992/93 Post-graduate Diploma in Environmental Education Programme. They are:

1. Dr. (Mrs) Arit Obot
2. Dr. (Mrs) F.N. Anijah-Obi
3. Mr. M. Ojuah

The NCF/WWF Environmental education in-service programme for University staff remains a continuous process.

2.2 Curriculum Development Initiatives (The Postgraduate and Ordinary Diploma programmes in Environmental Education)

The NCF/WWF Environmental Education Unit at the Institute of Education have blazed the trail in Nigerian education by developing curricula for two Environmental Education Programme namely: The Ordinary Diploma in Environmental Education and the Postgraduate Diploma in Environmental Education. Both courses can be very beneficial to a wide variety of

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services amongst numerous others. In developing these two curricula, the holistic model was principally used to ensure the full realisation of Environmental Education objectives:

2.2.1 The Postgraduate Diploma in Environmental Education

The Postgraduate Diploma in Environmental Education is a one academic session programme for holders of a University degree or equivalent qualifications. The programme is designed to:

- i) produce a crop of manpower that will assist in policy formulation and implementation on Environmental Conservation matters and sustainable development.
- ii) develop professionals that will take

individuals and establishments. Those wishing to or currently engaging in construction and/or manufacturing industries, engineering, finance houses, the media, national parks/forestry, the agricultural sector generally, the school system, health services, government agencies, social work and social services, tourism and other recreational services, the oil industry, transportation among numerous others can benefit from the programme. So also can those wishing to establish or are currently working in non-governmental organisations (NGOs) and all forms of private sector businesses related to environmental awareness, protection and conservation, sustainable development, environmental monitoring, preparation of environmental impact assessment/statement, environmental rehabilitation schemes, cleaning

curriculum initiatives and assist in the teaching and learning of Environmental Education in Nigerian educational system.

- iii) provide expertise that will educate urban and rural dwellers on the subject of environmental conservation, management and sustainable development.
- iv) fill the manpower requirement in environmental protection agencies, nature conservation organizations and national parks.
- v) ensure the availability of resources persons that will develop materials for the advancement of environmental conservation and protection.

The Postgraduate Diploma Programme consists of the following relevant modules or courses:

First Semester

Course	Titles	Credit Hours
PGDEE 5111	Environmental Education 1	3
PGDEE 5211	Planning and process in EE	3
PGDEE 5311	Curriculum and Instruction	3
PGDEE 5411	Community Education	3
PGDEE 5511	Research Methods in Education	3
PGDEE 5611	Environmental Perceptions and Human Behaviour	3
	TOTAL	18

Second Semester

Course	Titles	Credit Hours
PGDEE 5712	Environmental Education II	3
PGDEE 5812	Nigerian Environment	3
PGDEE 5912	Community Health	3
PGDEE 5922	Practicum/Field Work	3
PGDEE 5932	Research Project	6
	TOTAL	18

PGDEE 5111 and PGDEE 5712: Environmental Education I and II

Course Description

The course examines the philosophy and concept of Environmental Education as well as essential knowledge about the functioning of the environment encompassing the terrestrial, aquatic and atmospheric dimensions. Local and global environmental concerns arising from man's socio-cultural and other activities are then examined with a view to ensuring environmental conservation and sustainable development.

Course Objectives

The course seeks to accomplish in participants the following objectives:

- i) understanding of Environmental Education concept;

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- ii) acquisition of essential knowledge about the physical environment
- iii) awareness of the interrelationship between plants, animals and life support systems;
- iv) knowledge of how man's socio-cultural activities impinge on the physical environment;
- v) knowledge of environmental sanitation, conservation and protection.
- vi) application of knowledge acquired from i-iv above.

PGDEE 5211: Planning and Process In EE

Course Description

Environmental Conservation and protection necessarily calls for cooperative efforts by all and sundry, hence the

imperative for the understanding of group dynamics. The requisites for the effective management of material and human resources in environmental establishments for the purpose of achieving desired ends are also examined.

Course Objectives

Course participants should:

- i) be aware of essentials of team work
- ii) master the dynamics of human relations;
- iii) understand the principles of efficient and effective administration;
- iv) cultivate appropriate work ethics
- v) know the tools and strategies for proper management of material and human resources; and
- vi) apply the knowledge acquired from i-v above.

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PGDEE 5311: Curriculum and Instruction

Course Description

The course examines the content, nature, design and scope of the Environmental Education curriculum and enunciates ways of effecting innovations in the curriculum. Necessary resources for the successful implementation of curriculum goals as well as approaches to curriculum evaluation are also examined.

Course Objectives

Course participants should be able to:

- i) understand the basic concepts of Environmental Education curriculum
- ii) master the tools, strategies and principles related to the design and use of curriculum resources and how to

improve on them;

- iii) acquaint themselves with the knowledge of curriculum innovations;
- iv) master some curriculum evaluation techniques;
- v) be equipped with the practical know-how for effective implementation of Environmental Education curriculum.

PGDEE 5411 Community Education

The course is preoccupied with life in rural communities where the bulk of human population and the natural environmental is reserved. It examines the structure and organisation of rural communities, x-rays their problems and needs and prescribes possible solutions to improve their lot. All this is done against the background of environmental conserva-

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tion and sustainable living.

Course Objectives

The course seeks to accomplish the following objectives in participants.

- i) understanding of the concepts of community and development;
- ii) knowledge of the social and political organisation of communities;
- iii) mastery of the problems and solutions associated with community and rural life;
- iv) knowledge of approaches to environmental conservation and sustainable development in communities and rural life.
- v) application of knowledge acquired from i-iv above.

PGDEE 5511 Research Method In Environmental Education

Course Description

The course examines the logical, valid and reliable criteria for arriving at knowledge through rational, scientific, empirical and even spiritual investigations.

Course Objectives

The course participants should be able to:

- i) master the concepts of research methodology;
- ii) understand the rational, scientific, empirical etc. approaches to research in education;
- iii) acquaint themselves with the peculiarities of research in environmental education;

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- iv) apply the knowledge acquired from i-iii above to investigate problems related to Environmental Education.

PGDEE 5611 Environmental Perceptions and Human Behaviour

Course Description

The course examines how the physical environment is psychologically, empirically, rationally and spiritually perceived by man and how such perceptions have been determining human behaviours and responses towards the environment.

Course Objectives

The course seeks to accomplish the following objectives:

- i) developing in participants an understanding of the concept of percep-

tion;

- ii) acquainting participants with the knowledge of environmental perceptions in all ramifications (philosophical, empirical, spiritual, rational etc.
- iii) developing environmental consistent behavioural attitudes toward the physical environment.
- iv) highlighting the logical place of Environmental Education in ensuring environmental conservation and protection.

PGDEE 5812 Nigerian Environment

Course Description

The course is preoccupied with a study of the Nigerian physical environment, highlighting the ecological factors under-

lying its stability and well-being. It then proceeds to examine human socio-cultural activities in the physical environment and the resultant effect of this on the ecological balance of the Nigerian environment.

Course Objectives

The course participants should:

- i) be acquainted with the physical geography of Nigeria;
- ii) understand the ecological situation of Nigerian environment;
- iii) examine some socio-economic activities e.g. Industry, Agriculture and Construction etc. and their effects on the physical environment;
- iv) understand why environmental problems exist and offer possible solutions to the Nigerian environmental problems.

PGDEE 5912 Community Health

Course Description

This course focuses on preventive and curative medicine, maternal and child health and family planning against the background of environmental health and conservation especially among rural dwellers.

Course Objectives

Participants should:

- i) underscore the critical role of the physical environment in preventive medicine;
- ii) ascertain the place of plants, animals, life support systems and other aspects of the physical environment in curative medicine;
- iii) examine human disease and health

against the background of environmental sanitation;

- iv) know the principles and methods of family planning and its relevance in community health and environmental conservation;
- v) be acquainted with the maternal and child care techniques.

PGDEE 5922 Practicum (Field Work) In Environmental Education

Course Description

This course requires practical exposure of students to the functioning of the physical environment with its attendant socio-cultural influences by man's activities. During field work students may be classified as a single group or broken into sub groups and working on or studying one or differ-

ent environmental projects under two or more instructors/supervisors.

Course Objectives

Participants should:

- i) interact with the physical and socio-cultural environment which is the subject of their study;
- ii) appreciate and marry theory with practice;
- iii) experience environmental problems in order to find peculiar solutions;
- iv) practically demonstrate and apply skills of conservation and sustainable development;
- v) write an environmental report on the field work activity in question.

PGDEE 5932 Research Project

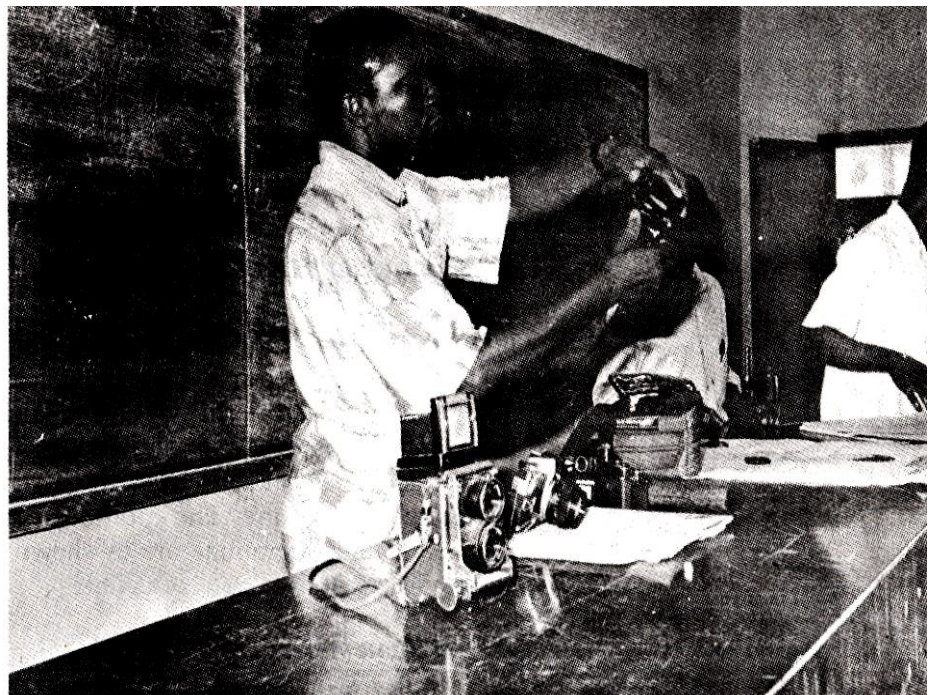
Course Description

This is a student dissertation on any aspect of the environment and it is akin to an Independent Study Project. The theme of the dissertation shall be environmental conservation and sustainable development and it shall bear relevance to either local or global environmental concern, but more importantly it shall emphasize the awareness and educational components.

Course Objectives

Course participants should be able to:

- i) ascertain their knowledge of environmental education so far undertaken in the course;
- ii) justify their knowledge, understanding and comprehension of research method;
- iii) contribute to knowledge in Environmental Education.



A consultant demonstrating an aspect of photography to Environmental Education Students

2.2.2 The (Ordinary) Diploma in Environmental Education

The (Ordinary) Diploma Programme in Environmental Education is a two-year (four-semester) programme designed for holders of the School Certificate or equivalent qualifications. It seeks to accomplish at a lower level similar objectives of the post-graduate programme. The modules or courses of the programme are as shown below:

First Semester Year 1

Course Code	Course Title	Credit Hours
DEE 1101	Introduction to Environmental Education	3
DEE 1201	Foundations of Environmental Education	3
DEE 1301	Community and Rural Development	3

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First Semester Year 2

Course Code	Course Titles	Credit Hours
ODEE 2101	Attachment (Six Weeks)	3
ODEE 2210	Communication and Mass Media in Environmental Education	3
ODEE 2301	Practicum in Environmental Education	3
ODEE 2401	Research Methods in Environmental Education	3
	Two courses in Teaching Subject	6
	TOTAL	18

Second Semester Year 2

Course Code	Course Titles	Credit Hours
ODEE 2102	Seminar in Environmental Education	3
ODEE 2202	Management of Natural Ecosystems	3

DEE 1401	Education for Sustainable Development	3
	Two courses in a Teaching Subject	6
	TOTAL	18

Second Semester Year 1

Course Code	Course Title	Credit Hours
ODEE 1102	Planning and process in Environmental Education	3
ODEE 1202	Curriculum Development and Eval. in EE	3
ODEE 1302	Man and Environmental Behaviour	3
ODEE 1402	Pedagogy in Environmental Education	3
	Two courses in a teaching subject	6
	TOTAL	18

ODEE 2302	Intro. to Env. Impact Assessment	3
ODEE 2402	Project in Environmental Education	3
	Two Courses in Teaching Subject	6
	TOTAL	18

DEE 1101 Introduction to Environmental Education

Course Description

Similar to PGDEE 511 and 5712

DEE 1201: Foundations of Environmental Education

Course Description

The course examines the philosophical, psychological, sociological and historical background of Environmental Education and sustainable development vis-a-vis

other societal values.

Course Objectives

Participants should:

- i) understand the philosophical, psychological, sociological and historical basis of Environmental Education;
- ii) analyse the logical place of religion and culture vis-a-vis environmental conservation in human affairs.
- iii) analyse the concept of development and its logical place vis-a-vis environmental conservation in the society;
- iv) ascertain the place of politics and war in environmental conservation and protection;
- v) criticise some population growth

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one society or generation is not only consistent with natural laws of the environment, but that it does not inhibit the opportunities of other societies or generations from meeting their own needs.

Course Objectives

The course seeks to realise the following objectives:

- i) understanding of the concept of sustainable development;
- ii) knowledge of sustainable development vis-a-vis conservation of nature;
- iii) knowledge of sustainable development vis-a-vis conservation of life support system;
- iv) the ascertainment of the rules of science and technology in sustain-

theories and their implication in environmental conservation and protection and apply knowledge acquired from i-iv above.

DEE 1301 Community and Rural Development

Course Description

Similar with PGDEE 5411

DEE 1401 Education for Conservation and Sustainable Development

Course Description

The course seeks to develop in participants the principles of sustainable development as far as resource use and the natural environment are concerned. This is with a view to ensuring that the development of

able development.

DEE 1102: Planning and Process in Environmental Education

Course Description and Objectives

Similar to PGDEE 5211

DEE 1202: Curriculum Development and Evaluation in Environmental Education

Course Description and Objectives are similar to PGDEE 5311.

DEE 1302: Man and Environmental Behaviour

Course Description

The course examines how human beings perceive the physical environment and how such perception affects their beha-

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viour towards it. The place of Environmental Education in determining human behaviour consistent with nature conservation is then ascertained.

Course Objectives

The objectives of the course are to:

- i) acquaint the participants with the anthropocentric or fragmentationist world views and their environmental implications;
- ii) understand the biocentric or holistic world view and its environmental implications.
- iii) appreciate the environmental theory of the supremacy of nature over man and its environmental implications;
- iv) know the imperatives of Environmental Education in determining

appropriate environmental behaviour in man.

DEE 1402: Pedagogy of Environmental Education

Course Description

The course explores appropriate teaching dynamics for educating participants in environmental education. It particularly emphasizes participants active, collective and practical involvement in the teaching-learning process.

Course Objectives

Participant should be able to:

- i) master the principles and psychology of human learning;
- ii) acquire the cognitive, psychomotor and affective skills necessary for

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teaching of environmental education;

- iii) understand why Environmental Education should be taught through the integrated/multidisciplinary approach and the separate and distinct subject approach;
- iv) be acquainted with various teaching methods in Environmental education such as the activity method and problem solving method.
- v) master the steps and principles involved in lesson preparation, presentation and classroom management;
- vi) understand the peculiarities to evaluation methods in Environmental Education;
- vii) apply knowledge acquired from i-iv above.

DEE 2101: Industrial Attachment

The course is designed to expose participants to practical problems of Environmental Education and sustainable development for six weeks so that the knowledge acquired in this direction can be fully applied within the referent situation.

Course Objectives

Participants should:

- i) appreciate the practical problems confronting Environmental Education and sustainable development within the cultural settings of the society;
- ii) apply knowledge acquired in the university to practical problems in the referent situation;
- iii) serve as resource persons and facili-

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tators on Environmental Education matters in the receiving establishment;

- iv) write fortnightly reports

DEE 2201: Communication and Mass Media in Environmental Education

Course Description

The course design emphasizes the basic principles of effective communication for result oriented Environmental Education activities. Communication models, tools and strategies also form part of the focus.

Course Objectives

The course participants should:

- i) understand the basic principles, models, tools and strategies of result-oriented and effective communication vis-a-vis environmental problems and sustainable development;
- ii) adopt suitable communication modalities to Environmental Education and sustainable development processes;
- iii) master the functioning and use of the mass media;
- iv) design short culturally-related communications aimed at positive attitude change.

DEE 2301: Practicum in Environmental Education

Course Description

Similar with PGDEE 5022

DEE 2401: Research Methods in Environmental Education

Course Description

The same as for PGDEE 5511.

DEE 2102: Seminar in Environmental Education

Course Description

The course focuses on seminar and workshop skills based on Environmental Education and sustainable development processes. Emphasis is also on independent exploration of local environmental prob-



Activity time in an Environmental Education class

lems and ways of creating awareness among the people.

Course Objectives

During and on completion of the course, participant should:

- i) develop seminar and workshop skills suitable for Environmental Education processes;
- ii) explore a wide variety of environmental education and sustainable development themes independently;
- iii) generate realistic solutions to local environmental problems;
- iv) work and report independently on an identified and approved environmental problem;
- v) communicate independent original work convincingly and forcefully to colleagues.

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- ii) and space;
- ii) justify the role of policies, laws regulations and institutions in natural ecosystems management;
- iii) attempt to resolve in their minds the conflict between economic development and environmental sustainability;
- iv) associate specific environmental management steps to relevant management tools as operational guidelines for the management of natural ecosystems;
- v) choose to adopt any specific management theory to the natural ecosystems.

DEE 2202: Management of Natural Ecosystems

Course Description

Promotion of environmental management strategies and their operational guidelines form the focus of the course. The features, purposes and management strategies of ecosystem should emphasize diversity, aesthetics, compromise, teamwork principles of wildlife management and control including the application of some related theories.

Course Objectives

During and on completion of the course, learners should be able to:

- i) establish the main environmental issues and their evolution over time

DEE 2302: Introduction to Environmental Impact Assessment

Course Description:

This course is designed to introduce learners to environmental impact assessment through the use of case studies. The relevant Environmental Impact Assessment (EIA) activities, principles, techniques and management strategies shall be emphasised using the case studies approach;

Course Objectives

During and on completion of this, course participants should be able to:

- i) identify specific issues and activities and their specific impacts on the environment;
- ii) carry out some EIA activities in small scale locally

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- iii) criticize the EIA principles applied in their activities;
- iv) use appropriate EIA techniques
- v) examine relevant environmental management techniques;
- vi) use case studies to examine environmental impacts of human activities.

DEE 2402 Research Project in Environmental Education

Course Description

The same as in PGDEE 5932

Teaching Subjects

Every student undergoing the Ordinary Diploma in Environmental Education is supposed to take at least twenty-four credit hours in a teaching subject area of interest. This is to broaden their knowledge

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base, adequately equip them for further studies in Environmental Education and ensure proper use of their subjects of interest as a vehicle for adopting the insertion approach to facilitate positive attitude to sustainable development.

2.3 Environmental Education in the NCE Programme

The Environmental Education Unit has also developed two Environmental Education modules for the Institute of Education NCE Regular, Distance Learning and Sandwich programmes. These modules now constitute an integral part of the NCE Curriculum.

2.4 Environmental Education at Degree Level in the Faculty of Education

The Environmental Education Unit is also working with the Faculty of Education to develop and begin the Bachelor's degree in Environmental Education. The quarter, April-June 1993, witnessed the formation of an Environmental Education Curriculum Committee that has now developed the bachelor's degree programme. It is expected that the first intake of students shall take place during the 1994/95 academic session.

3. Pedagogical Approaches and Methods

The unit is quite aware of the normative (traditional) and innovative approaches and methods in teaching

Environmental Education. It has not only applied these approaches, but is also working towards distilling and improving on them. Some of the approaches current used are:

3.1 The Interdisciplinary Approach

This is the approach in which two or more disciplines are expressed in terms of interrelationship regarding any environmental question. This approach is virtually synonymous with pludisciplinary, multidisciplinary, polydisciplinary and transdisciplinary approaches (UNESCO and UNEP, 1985). The interdisciplinary approach presupposes that Environmental Education is not a separate or new subject or discipline but that it is the orientation and dovetailing of different subjects and disciplines and focusing their contents on sustainable devel-

opment. Hence teaching should be interdisciplinary drawing from and striking a relationship between all these subjects as far as the environment is concerned. This approach is encouraged for adoption by various subject teachers.

3.2 The Autonomous or Distinct Subject Approach

This innovation calls for Environmental Education being developed, treated and taught as a subject of its own and existing as such in the school curriculum. Such is the case with the NCF/WWF Environmental Education Unit, University of Calabar. Environmental Education teachers are expected to be professionally and generally equipped with essential knowledge about the environment and with affective and psychomotor skills for teaching Environ-

mental Education. Environmental Education topics, in one dimension, are still acknowledged as being interdisciplinary. On the other dimension, its interdisciplinary teaching does not thematically bring to focus the objectives of Environmental Education as much as when the topics are treated independently by the professionally equipped environmental educators.

4. Co-curricular Activities

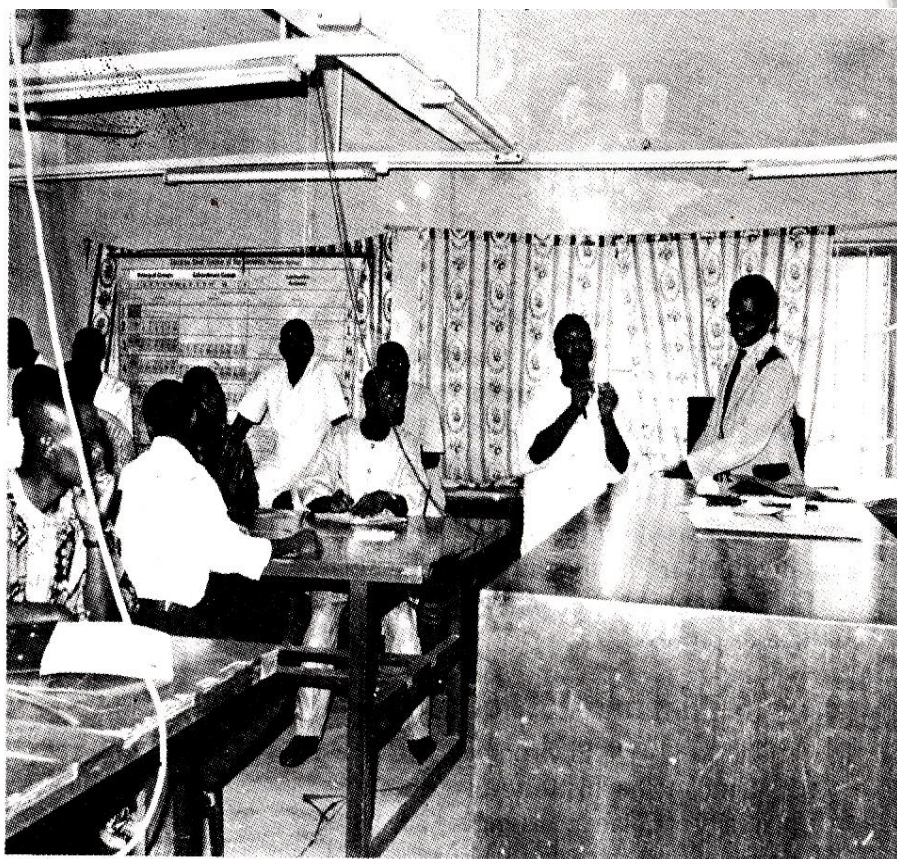
4.1 Conservation Clubs

UNESCO (1986) has succinctly asserted that:

“Non-formal environmental education with its wide scope and large target audience is a fertile and promising field for fulfilling the purpose of inculcating awareness, knowledge, skills, commitments and

actions on the part of individuals and groups in the general public for the protection and improvement of the environment and its quality for the present and future generations.”

It is against this background that the NCF/WWF promote Conservation Clubs nationwide. Conservation clubs are essentially students-oriented clubs designed to promote environmental awareness in non-formal but critical activities such as nature trail, quiz competitions, debates, tree planting and essay competitions. The Environmental Education Unit has so far established 32 Conservation clubs in post primary institutions in Cross River State and one at the tertiary level at the University of Calabar. Plans are completed for such clubs to be established in Akwa Ibom State. Plans are completed for such clubs to



A brain-storming-cum-activity session

be established in Akwa Ibom State.

4.2 Environmental Awareness Seminars

Environmental awareness seminars geared towards developing a citizenry that is conscious of and concerned about environmental conservation and protection has been organised by the unit to over 2,000 individuals from different establishments. These awareness seminars remain a continuous process.

5. Print and Publications

The NCF/WWF Environmental Education Unit of the Institute of Education, University of Calabar, has embarked on the ambitious and very laudable project of writing and producing standard textbooks for all the modules in both the Ordinary Diploma and Postgraduate Diploma in En-



Participants observing a demonstration at a workshop

vironmental Education. Consequently a 35-man team of highly skilled scholars has been constituted and oriented in a four-day

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National Writers Workshop organised by NCF, Lagos in conjunction with Environmental Education Unit, University of Calabar. Writing commenced during the workshop and was thereafter in full force. The project is scheduled for completion by June, 1994.

Of tremendous significance, too, is the initiation of the *Nigerian Journal of Environmental Education* (NJEE) a project which was based at the EEU but currently taken over by the Nigerian Association for Environmental Educators (NAFEE). Articles for the maiden edition of the journal had been called for and received nation-wide by the EEU. An editorial board has already been constituted and articles duly reviewed. It suffices to say that the maiden edition of the journal shall be published soonest by the NAFEE.

6. Other Resources for Environmental Education

The Unit presently operates a library for both staff and student services in Environmental Education. It also has audio-visual equipment for teaching and learning and the development of Environmental Resources Centre is in progress. So also is Desktop Publishing (DTP). The University of Calabar main library is also at the full disposal of students of the environmental education programme.

7. Technical Services

The NCF/WWF Environmental Education Unit serves as a repository of technical knowledge in EE for government agencies. It provides invaluable information to the Calabar Capital City Development Auth-

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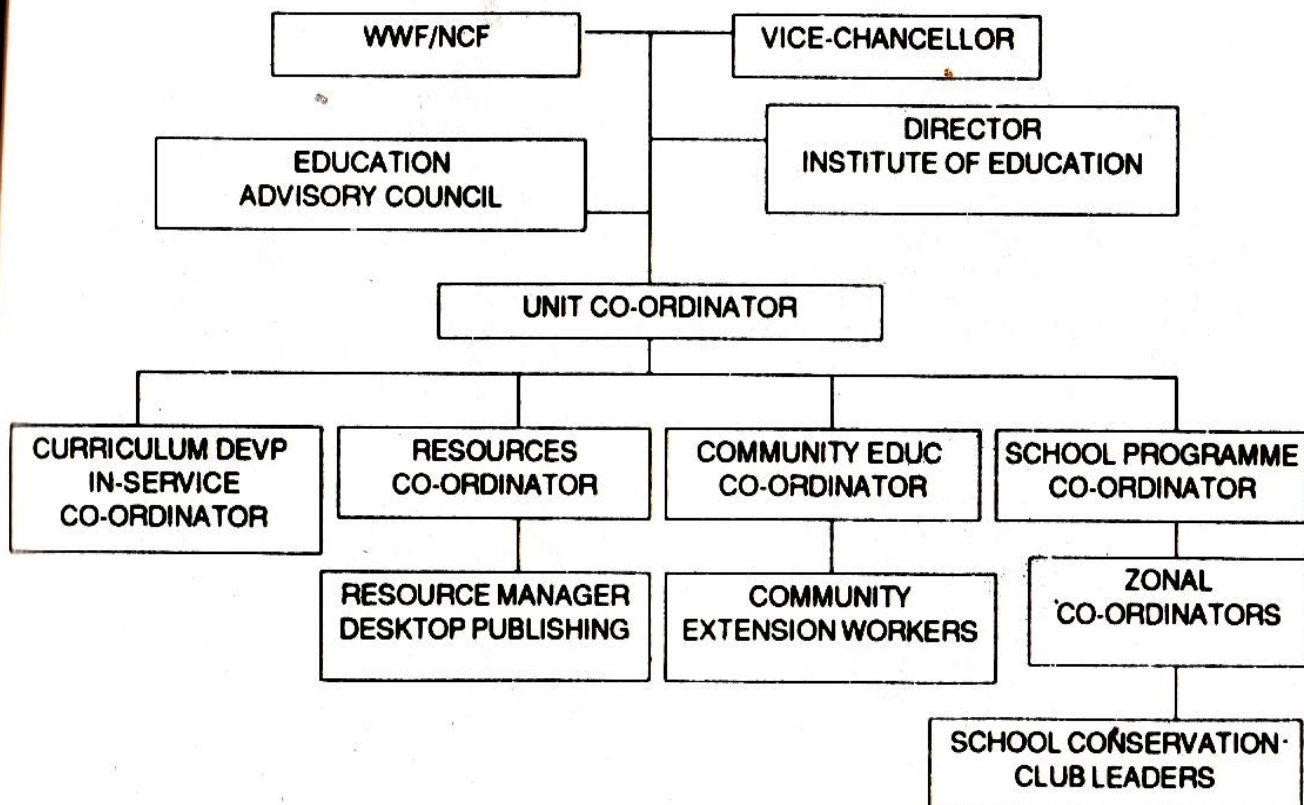
ority for the latter's tree planting programme. The Unit also worked on a bill for the establishment of a Cross River State Environmental Protection Agency. It can also provide short courses and technical services to the Tourist Board, the Forest Reserves, the National Parks, schools and colleges, the Federal, State and Local governments, ministries of Agriculture, Education, Works, Information, Health, etc. government parastatals, private and public companies, non-governmental organisations, among numerous others on all aspects related to environmental protection, conservation, sustainable development and environmental rehabilitation.

9. EEU in the Future

Given that man's daily life and existence is so inextricably linked with the environment and given the conscious and pervasive global attention devoted to environmental conservation and protection today, buttressed by the great interest in a response to the educational programmes of the Environmental Education Unit, University of Calabar, by all and sundry, there is no gainsaying the fact that the NCF/WWF educational endeavour in Calabar constitutes a great beacon of hope to Nigeria, the Africa continent and the wider world. The mantle of instructional leadership in Environmental education in the West African Sub-region shall continue to be upheld by the unit.

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APPENDIX A: Organisational Chart of the Environmental Education Unit



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APPENDIX B: Contributors To the Development of the University of Calabar Environmental Education Programme

Prof. Charles Effiong	Formerly, Vice Chancellor, UNICAL	Dr. Edward Obi-Akatchack	Pioneer Co-ordinator, EEU-Institute of Education Unical
Prof. Solomon Unoh	Vice Chancellor, Unical	Mr. Gabriel O. Oji	Formerly Co-ordinator, EEU-Institute of Education, Unical
Mr. E.J. Akpan	Registrar, Unical	Mr. Moses Inyang-Abia	Co-ordinator, EEU, Institute of Education
Prof. R.A. Omojuwa	Director, Institute of Education	Mrs. Florence B. Obi	Environmental Education Unit, Institute of Education
Prof. L.E. Amadi	Dean, Faculty of Education	Mr. Ewa Usang	Faculty of Education, Unical
Prof. S.W. Petters	Dean, Graduate School	Mr. Clement Ebin	General Manager, Cross River National Park
Mr. Hamish Aitchinson	WWF-UK, Head of Education, London and Overseas Project	Mr. Pius Anadu	Formerly, Executive Director, NCF, Lagos.
Mrs. Carolyn Knight	Pioneer Project Executant, NCF, Lagos		
Dr. Yomi Noibi	NCF/WWF-UK, Head of Education, Lagos		
Dr. J.U. Emeh	Head, Department of Educational Services, Institute of Education, Unical		

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APPENDIX C: Consultants (Lecturers) for the Environmental Education programme

1. Prof. V.C. Uchendu	Director, Institute of Public Admin. Unical	11. Dr. M. Ebong	Department of Geography and Regional Planning, Unical
2. Prof. U.K. Enyinihi	Director, Institute of Oceanography, Unical	12. Dr. A.E. Ntukidem	Department of Geography and Regional Planning, Unical
3. Prof. S.W. Peters	Dean, Graduate School, Unical	13. Dr. N.S. Olaniran	Community Health Department Medical School, Unical
4. Dr. (Mrs) Anijah Obi	Institute of Education, Unical	14. Dr. E.A. Akpan	Community Health Department Medical School, Unical
5. Dr. J.U. Emeh	Institute of Education, Unical	15. Dr. J.U. Obot	Department of Geography and Regional Planning, Unical
6. Dr. Mrs) A. Obot	Institute of Education, Unical	16. Dr. S. Uche	Faculty of Education, Unical
7. Dr. Emmanuel Ikpeme	Institute of Education, Unical	17. Mr. M.E. Inyang-Abia	Co-ordinator, Environmental Education Unit, Institute of Education, Unical
8. Dr. I. Ekpo	Department of Geography and Regional Planning, Unical		
9. Dr. I. Erukoha	Faculty of Education, Unical		
10. Dr. (Mrs) Eno Ukpong	Faculty of Education, Unical		

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| 18. Mr. G.O. Oji | Environmental Education Unit, Institute of Education, Unical | 29. Dr. Yomi Noibi | Unical
Head of Education, NCF/WWF Lagos |
| 19. Mr. O. Ajayi | Institute of Education, Unical | 30. Mr. Tunde Lawal | Lagos State College of Education |
| 20. Mr. I. Umoinyang | Institute of Education, Unical | 31. Ms Zena Tooze | Canadian University Service Overseas (CUSO) |
| 21. Mrs S. Umoh | Institute of Education, Unical | 32. Mr. Clement Ebin | General Manager, Cross River National Park |
| 22. Mrs. F.B. Obi | Environmental Education Unit, Institute of Education, Unical | 33. Mr. Philip Marshall | Project Manager, Cross River National Park |
| 23. Mr. J. Agabi | Department of Geography and Regional Planning, Unical | 34. Guest Lecturers from NCF | |
| 24. Mr. Effiong Fuller | Department of Geography and Regional Planning, Unical | 35. Guest Lecturers from WWF | |
| 25. Mr. N.U. Ntia | Faculty of Education, Unical | 36. Guest Lecturers from Strathclyde University (Jordanhill Campus) Glasgow | |
| 26. Mr. E. Usang | Faculty of Education, Unical | | |
| 27. Mr. B.J. Bassey | Department of Geography and Regional Planning, Unical | | |
| 28. Mr. J. Ukpe | Department of Geography and Regional Planning, | | |

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An Environmental Education class

