

A Regional Directory of African Tertiary Level Environmental Training Institutions, Programmes and Resource Persons

Formation Supérieure en Matière d'Environnement en Afrique Répertoire des Etablissements, Programmes et Personnels



REGIONAL OFFICE FOR AFRICA
P. O. Box 30552
NAIROBI, KENYA

July 1991
Second Edition



BUREAU REGIONAL POUR L'AFRIQUE
P. O. Box 30552
NAIROBI, KENYA

Juillet 1991
Deuxième Edition

ISBN 92-807-1299-3

UNITED NATIONS ENVIRONMENT PROGRAMME - UNEP

PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT

P N U E

A REGIONAL DIRECTORY OF AFRICAN TERTIARY LEVEL ENVIRONMENTAL
TRAINING INSTITUTIONS, PROGRAMMES AND RESOURCE PERSONS

FORMATION SUPERIEURE EN MATIERE D'ENVIRONNEMENT EN AFRIQUE

REPertoire DES Etablissements, Programmes Et Personnels.

REGIONAL OFFICE FOR AFRICA
UNEP
P.O. Box 30552
NAIROBI
KENYA

BUREAU REGIONAL POUR L'AFRIQUE
PNUE
B.P. 30552
NAIROBI
KENYA

JUNE 1989

Second Edition

JUIN 1989

Deuxième Edition

doc. 1951b

Ref
sic
Env
(6)3

- 2 -

FOREWORD

The publication and distribution of the second edition of this directory is a fulfilment of a long-term plan to link up, through the auspices of UNEP, the various tertiary level institutions in the Africa region engaged in environmental training and research.

This link-up is an active process intended to enrich each other's programmes both at the level of the individual lecturer and/or research worker and the institutions. Further, the directory is a record of activities in environmental training and research and another step in a series of activities to establish a network of tertiary level institutions with active environmental training programmes in the region. To be effective, a network must be well coordinated. This coordination role will be fulfilled by a Regional Coordination Unit linked to Centres of Excellence in the sub-regions and to national member institutions.

As usual, UNEP will play a catalytic role in activating the network, through the Regional Co-ordination Unit and the Centres of Excellence. But the responsibility of keeping the network alive and functioning rests with its members who will be assured of UNEP's support.

It is well-known that Africa is facing a very serious environmental crisis which calls for concerted action by all her people and institutions. Co-ordinated environmental training and research, focused on priority areas, will go a long way to rehabilitate and conserve the environment, restore and improve the well-being of her people.

I appeal to all individual scientists and tertiary institutions in Africa to rise to the challenge of the African Crisis by orienting their training and research towards a holistic treatment of the environment so as to ensure its rehabilitation and conservation for sustained development. The accent should be put on conservation and development of the region's natural resources for the benefit of all.

Dr. Maxime Ferrari
Director
Regional Office for Africa
UNEP

June 1989

PREFACE

La publication et la diffusion de la deuxième édition de ce répertoire sont un des moyens de concrétiser un plan à long terme consistant à forger, sous les auspices du PNUE, des liens entre les différents établissements de recherches et de formation supérieure en matière d'environnement de la région d'Afrique qui travaillent dans le domaine de la recherche et de la formation en sciences de l'environnement.

Il s'agit d'un processus dynamique visant à enrichir les programmes de chacun, aussi bien au niveau des enseignants et des chercheurs qu'à celui des établissements.

Le répertoire est aussi une récapitulation des activités menées en matière de recherche et de formation aux sciences de l'environnement et marque une étape de plus dans la série des actions destinées à créer un réseau d'établissements offrant des programmes de formation supérieure en matière d'environnement. Pour être bien coordonné, ce rôle de coordination sera la tâche d'une Unité Régionale de coordination liée aux Centres d'Excellence des sous-régions et aux établissements nationaux membres du réseau.

Le PNUE jouera un rôle de catalyse en dynamisant le réseau par l'intermédiaire de l'unité régionale de coordination et des Centres d'excellence. Mais la responsabilité de maintenir le réseau vivant et de le faire fonctionner incombe à ses membres qui seront assurés du soutien du PNUE.

L'Afrique, nous le savons, doit faire face à une grave crise de l'environnement qui requiert l'action concertée de tous ses peuples et institutions. Une recherche et une formation en matière d'environnement bien coordonnées, mettant l'accent sur les domaines prioritaires, feront beaucoup pour la mise en état et la conservation de l'environnement, la restauration et l'amélioration du bien-être des populations.

Je demande donc à tous les scientifiques et à tous les établissements d'enseignement supérieur et de recherche d'Afrique de répondre au défi que pose la crise africaine en adoptant, dans le domaine de la recherche et de la formation en matière d'environnement, une approche holistique de manière à permettre sa restauration et sa conservation dans la perspective d'un développement continu. L'accent doit être mis sur la conservation et la mise en valeur des ressources naturelles de la région pour le bénéfice de tous.

Le Directeur du Bureau Régional
pour l'Afrique,
PNUE

Dr Maxime Ferrari

Juin 1989

CONTENTS

	<u>Page</u>
FOREWORD -----	2
INTRODUCTION -----	7
CHAPTER ONE - African Tertiary Level Institutions with Active Environmental Training Programmes	
Algeria -----	16
Benin -----	20
Botswana -----	21
Burkina Faso -----	25
Cameroon -----	26
Congo -----	28
Côte d'Ivoire -----	29
Egypt -----	30
Ethiopia -----	41
Ghana -----	42
Kenya -----	59
Liberia -----	68
Madagascar -----	69
Mauritania -----	70
Mauritius -----	71
Nigeria -----	74
Senegal -----	93
Sierra Leone -----	96
Sudan -----	97
Swaziland -----	99
Tanzania -----	100
Uganda -----	103
Zambia -----	107
Zimbabwe -----	108
CHAPTER TWO: Other Tertiary Level Institutions in Africa -----	115
CHAPTER THREE: Information on Personnel Active in Environmental Training and Research -----	123
CHAPTER FOUR: Other Personnel Engaged in Environmental Training in Level Tertiary Institutions in Africa -----	213
CHAPTER FIVE: UNEP Consultants from Africa Region -----	230
<u>ANNEXES</u>	
ANNEX I Questionnaire: Establishment of African Network Tertiary Level Environmental Training -----	238
ANNEX II Questionnaire: Personnel Active in Environmental Training -----	250
ANNEX III Questionnaire Format -----	253

T A B L E D E S M A T I E R E S

	<u>Pages</u>
Préface	3
Introduction	11
Chapitre 1	
Etablissements africains offrant des Programmes de formation supérieure en matière d'environnement.	
Algérie	16
Bénin	20
Botswana	21
Burkina Faso	25
Cameroun	26
Congo	28
Côte d'Ivoire	29
Egypte	30
Ethiopie	41
Ghana	42
Kenya	59
Libéria	68
Madagascar	69
Mauritanie	70
Maurice	71
Nigéria	74
Sénégal	93
Sierra Léone	96
Soudan	97
Swaziland	99
Tanzanie	100
Ouganda	103
Zambie	107
Zimbabwe	108
Chapitre 2	
Autres établissements supérieurs en Afrique	115
Chapitre 3	
Informations sur les personnels travaillant dans les domaines de la recherche et de la formation en matière d'environnement	123
Chapitre 4	
Autres personnels travaillant dans le domaine de la formation supérieure en environnement dans les établis- sments d'Afrique	213
Chapitre 5	
Experts consultants du PNUE originaires de la Région Afrique	230

Annexes

Annexe I	Questionnaire : création d'un réseau d'établissements de formation supérieure en matière d'environnement en Afrique -----	243
Annexe II	Questionnaire : Personnels travaillant dans le domaine de la formation en matière d'environnement -----	252
Annexe III	Formulation du questionnaire -----	258

INTRODUCTION

UNEP's general policy is to promote sustainable development. Its training policy and training activities are designed to promote the implementation of this policy. The aim of environmental training is to enhance the capabilities of countries to deal effectively with their environmental concerns. In pursuance of this aim, UNEP includes training components in its activities.

UNEP regards environmental training as a means to achieve specific objectives which are translated into environmental benefits to be derived by the trainees' countries.

Environmental training has two basic forms: general and specialised. General training attempts to build awareness of the environment as a whole and to develop individual capabilities to deal with environmental problems. Specialised training seeks to develop the problem-solving capabilities of professionals and to enable them to work on specific environmental issues and problems.

The target groups for general environmental training include: policy-makers and decision-makers, administrators and planners, engineers, architects, industrialists, trade unionists and agriculturists.

Specialised training is primarily for those occupational or social groups whose activity and influence have an important bearing on the environment, e.g. biologists, chemists, economists, ecologists, hydrologists, toxicologists, soil scientists, agronomists, foresters, oceanographers, landscape architects, limnologists, meteorologists and sanitary engineers.

Follow-up to decision 13/6 of 23 May 1985 of UNEP Governing Council

To comply with this decision, UNEP, in cooperation with OAU and ECA, and in consultation with a number of UN Agencies, convened the first African Ministerial Conference on the Environment (AMCEN) which produced the Cairo Programme for African Co-operation.

The Cairo Programme for African Co-operation

One of the major decisions of the Conference was to establish eight Regional Technical Co-operation Networks, covering the following subject areas:

1. Environmental Monitoring
2. Climatology
3. Soils and Fertilizers
4. Water
5. Energy
6. Genetic Resources
7. Science and Technology
8. Environmental Education and Training.

The general terms of reference of the eight networks were stipulated as follows:

- (a) Strengthening horizontal co-operation between national technical departments and scientific institutions, thus pooling the experience acquired continent-wide and ensuring the utilization of available national skills, capabilities and expertise on a regional basis;
- (b) Seeking solutions to environmental problems that transcend national boundaries;
- (c) Using scientific and technical tools to support development projects, through the mobilization of regional efforts (human, institutional, technical and financial);
- (d) Collecting, processing, storing and disseminating (as appropriate) basic data provided by national technical departments;
- (e) Providing scientific and technical assistance to African countries (as requested) in the analysis, collation and correlation of data.

It was decided to set up initially five of the networks: Environmental Monitoring, Climatology, Soils and Fertilizers, Water, Renewable Energy, and later Environmental Education and Training.

It is, in connection with the Environmental Education and Training network that a questionnaire was circulated to all the institutions (see Annex I) to enable UNEP conduct a survey of the existing facilities and activities in these institutions for environmental training. All the institutions who responded to the questionnaire expressed willingness to become members of the proposed network. This survey, has resulted in the setting up of an Environmental Training Network in the Region, whose objectives and terms of reference are stated hereunder.

Objectives

- (a) To promote environmental education and training in teaching institutions;
- (b) To increase the environmental awareness of the general public, technicians and decision-makers in Africa.

Terms of Reference

- (a) Ensure the implementation of the approved Programme of Action on Environmental Education and Training in Africa and, to this end, in particular, promote co-operation among national bodies and sub-regional centres working the field of environmental education and training;
- (b) Support and co-ordinate the efforts of national environmental education and training centres in order to co-ordinate and maximize sub-regional and national efforts currently under way;
- (c) Support research on improving curricula and methodologies of environmental education and training in the region using local experience;
- (d) Assist governments in developing practical national approaches for raising the level of environmental awareness;
- (e) Carry out environmental training activities for specific target-groups such as farmers, youth, women, specialists and managers;
- (f) Collect and disseminate environmental education and training materials.

How the survey was conducted

A questionnaire (Annex I) was mailed to institutes listed in Chapter I and II of the directory. Another questionnaire (Annex II) was mailed to individuals whose names were mentioned by the institutions responding to the first questionnaire. The data obtained from these returned questionnaires provided information from which the first edition of the directory was compiled.

The directory was distributed to all the institutions and individuals listed therein. It was also distributed within UNEP. There were principally two reasons for this distribution: to disseminate information to potential members of the Environmental Education and Training Network and to receive feedback for the second edition. Both objectives have been satisfactorily achieved. The second edition has taken into account most of the readers comments.

Contents of the Directory

Chapter I is a record of the activities in environmental training being undertaken in the institutions contained in this chapter. The information is taken from responses to the questionnaire in Annex I and amendments to the first edition.

Chapter II lists names and addresses of most of the remaining tertiary level institutions in the African region which did not return the questionnaire for inclusion in the directory.

Chapter III consists of those individuals, by country, who kindly filled in and returned a one-page questionnaire on their activities. Chapter IV is a list of those persons about whom UNEP would like to hear more of their activities in the environmental field. They are being requested to complete Annex II and mail it to the Regional Office for Africa.

Last but not least, Chapter V was added to the second edition, it being felt that some UNEP consultants from Africa region should be more widely known to their colleagues in the universities and research institutions throughout the region. Many of them have been actively involved in the implementation of UNEP programmes, including the AMCEN programme and the setting up of its Networks.

The directory therefore provides information about courses in environmental training offered by various national and regional institutions in Africa. There has been an attempt to give an outline of the courses offered, together with the cost and duration of the course where this information was provided by the institution in question. Most, if not all, of the institutions take in foreign students. It is therefore hoped that there will be a regular exchange of African students and scholars among the institutions in the region to study and research at each other's institutions.

This information is obviously not exhaustive as many of the institutions contacted did not return the questionnaire in time. However, there are adequate data to give a good picture at what is happening in the field of environmental training in these institutions throughout the region. Therefore, there will be a need to regularly up-date the directory.

Reminder

Those institutions and individuals who would like to be included in the next edition of the directory are requested to complete the relevant questionnaire (Annex I and II) at the end of this publication and forward it to the Regional Director, Regional Office for Africa, UNEP, P. O. Box 30552, Nairobi, Kenya.

Acknowledgements

This directory could not have been published without the co-operation of the institutions and individuals of the countries surveyed in it, and the research and compilation done by Professor Edward Rugumayo.

I N T R O D U C T I O N

La politique générale du PNUE est de travailler à l'avènement d'un développement durable. Sa politique et ses activités de formation s'efforcent de mettre en oeuvre cette politique générale.

L'Objectif de la formation en matière d'environnement est de rendre les pays plus aptes à trouver des solutions efficaces aux problèmes d'environnement. C'est dans ce but que le PNUE inclut la formation dans ses activités.

Le PNUE considère la formation en matière d'environnement comme un moyen d'atteindre des objectifs spécifiques qui se traduisent, pour les pays des personnels formés, en avantages de nature environnementale.

La formation en matière d'environnement comporte : la formation générale et la formation spécialisée. La formation générale tente de sensibiliser les intéressés à l'environnement dans son ensemble et à développer des compétences individuelles permettant de traiter les problèmes d'environnement. La formation spécialisée vise à donner aux professionnels la capacité de résoudre des problèmes et de travailler à des questions précises concernant l'environnement.

Les groupes auxquels s'adresse la formation générale sont : les dirigeants, les cadres, les planificateurs, les ingénieurs, les architectes, les industriels, les syndicats et les agriculteurs.

Le formation spécialisée s'adresse surtout aux groupes professionnels et sociaux dont l'activité et l'influence sont importantes pour l'environnement, par exemple les biologistes, les chimistes, les économistes, les écologistes, les hydrologues, les toxicologues, les pédologues, les agronomes, les forestiers, les océanographes, les architectes-paysagistes, les météorologues et les ingénieurs de l'assainissement.

Suivi donné à la décision 13/6 du 23 mai 1985 du Conseil d'Administration du PNUE.

Pour respecter cette décision, le PNUE en coopération avec l'OUA et la CEA, et en consultation avec un certain nombre d'agences des Nations Unies, a réuni la première Conférence Ministérielle Africaine sur l'Environnement (CMAE) qui a adopté le Programme du Caire pour la coopération africaine.

PROGRAMME DU CAIRE POUR LA COOPERATION AFRICAINE

L'une des principales décisions de la Conférence a été de créer huit Réseaux régionaux de coopération technique, dans les domaines suivants :

1. Surveillance continue de l'environnement
2. Climatologie
3. Sols et engrais

4. Eau
5. Energie
6. Ressources génétiques
7. Science et technologie
8. Education et formation en matière d'environnement

Les attributions générales des huit réseaux sont les suivantes :

- a) Renforcer la coopération horizontale entre les institutions techniques et les établissements scientifiques nationaux, pour mettre en commun l'expérience acquise à l'échelle du continent et permettre l'utilisation des aptitudes, compétences et connaissances disponibles sur une base régionale.
- b) Chercher des solutions aux problèmes qui dépassent les frontières nationales.
- c) Utiliser les outils scientifiques et techniques pour soutenir les projets de développement grâce à la mobilisation des efforts régionaux (humain, institutionnel, technique et financier).
- d) Rassembler, traiter, stocker et disséminer (selon les besoins) les données de base fournies par les institutions techniques nationales.
- e) Fournir une assistance scientifique et technique (sur demande) aux pays africains pour l'analyse, le rassemblement et la mise en relation des données.

Il avait été décidé de créer dans un premier temps cinq de ces réseaux: la surveillance continue de l'environnement, la climatologie, les sols et engrais, l'eau, l'énergie; et ensuite le réseau d'éducation et de formation en matière d'environnement.

En rapport avec le Réseau d'éducation et de formation en matière d'environnement un questionnaire a été envoyé à tous les établissements (voir Annexe I) pour permettre au PNUÉ de recenser les installations et activités existantes dans ces établissements en matière de formation aux sciences de l'environnement. Tous les établissements qui ont répondu aux questionnaires se sont déclarés prêts à devenir membre du réseau. Le résultat de cette enquête conduira donc à la création d'un réseau régional de formation en matière d'environnement dont les objectifs et les attributions sont présentés ci-dessous.

Objectifs

- a) Développer l'éducation et la formation en matière d'environnement dans les établissements d'enseignements;
- b) Sensibiliser le public, les techniciens et les décideurs d'Afrique aux problèmes d'environnement.

Attributions

- a) Veiller à l'exécution du Programme d'action sur l'éducation et la formation en matière d'environnement en Afrique et, pour cela, développer la coopération entre les organismes nationaux et les centres sous-régionaux travaillant dans le domaine de l'éducation et de la formation en matière d'environnement;
- b) Soutenir et coordonner les efforts des centres nationaux d'éducation et de formation aux sciences de l'environnement afin de coordonner les efforts sous-régionaux et nationaux en cours et de leur permettre de donner le maximum des résultats;
- c) Soutenir la recherche portant sur l'amélioration des programmes et des méthodologies relatifs à l'éducation et à la formation en matière d'environnement et ayant recours à l'expérience locale;
- d) Aider les gouvernements à élaborer des méthodes pratiques de sensibilisation de l'opinion aux problèmes d'environnement;
- e) Mener des activités de formation en matière d'environnement pour des groupes cibles tels que les jeunes agriculteurs, les femmes, les spécialistes et les gestionnaires;
- f) Rassembler et disséminer le matériel pédagogique pour l'éducation et la formation en matière d'environnement.

Manière dont l'enquête a été menée

Un questionnaire (annexe I) a été posté aux instituts figurant dans les chapitres I et II de ce répertoire. Un autre questionnaire (Annexe II) a été envoyé aux personnalités dont le nom a été mentionné par les institutions ayant répondu au premier questionnaire. Les données recueillies au dépouillement des questionnaires renvoyés ont fourni des renseignements à partir desquels on a procédé à la compilation de la première édition du répertoire.

Le répertoire a été diffusé auprès des institutions et des personnalités dont le nom y figure, ainsi que parmi les organes du PNUE. Cette diffusion tenait principalement de deux motifs: disséminer l'information auprès d'éventuels membres du Réseau d'éducation et de formation en matière d'environnement, et recevoir une rétroaction pour la deuxième édition. Ces objectifs ont tous deux été atteints de façon satisfaisante. La deuxième édition tient compte de la plupart des remarques formulées par les lecteurs.

Contenu du répertoire

Le Chapitre I relève les activités de formation, entreprises dans le domaine de l'éducation écologique, par les institutions figurant dans ce chapitre. Les renseignements sont tirés des réponses au questionnaire de l'Annexe I, et des amendements à la première édition.

Le Chapitre II donne le nom et l'adresse de la majorité des autres institutions supérieures de la Région Afrique qui n'ont pas renvoyé leur réponse au questionnaire aux fins d'insertion dans le répertoire.

Le Chapitre III se compose des personnalités, classées par pays, qui ont bien voulu remplir et retourner un questionnaire d'une page sur leurs activités. Le Chapitre IV est une liste des personnes dont les travaux dans le domaine de l'environnement ont attiré l'attention du PNUÉ, qui aimerait en savoir davantage. Il leur est demandé de remplir l'annexe II et de le renvoyer au Bureau Régional pour l'Afrique.

Enfin, et non des moindres, la deuxième édition se voit doter d'un Chapitre V car on a pensé que les consultants du PNUÉ originaires de la Région Afrique devraient être mieux connus de leurs collègues des universités et des instituts de recherche de la région. Un grand nombre d'entre eux se sont trouvés engagés de façon active dans la mise en oeuvre des programmes du PNUÉ, entre autres ceux de la Conférence Ministérielle Africaine pour l'Environnement et dans la mise en place de ses réseaux.

A ce titre, le répertoire fournit des renseignements sur les cours de formation en matière d'environnement offerts par les divers établissements africains à l'échelon national ou régional. Il s'efforce de présenter un aperçu des cours offerts, de leur coût et de leur durée, chaque fois que l'établissement concerné a fourni ce genre de renseignements. La plupart, sinon tous, acceptent des étudiants étrangers. On peut donc espérer qu'il s'établira un courant d'échange régulier des étudiants et des chercheurs africains entre les institutions de la région, pour étudier et effectuer de la recherche chez les uns et chez les autres.

Il est évident que l'information donnée n'est pas exhaustive, car un grand nombre d'institutions contactées n'ont pas retourné le questionnaire au moment voulu. On dispose cependant de données suffisantes pour avoir une idée exacte de ce qui se fait en matière de formation écologique dans tous ces établissements de la région. Il sera par conséquent nécessaire de mettre ce répertoire à jour de manière régulière.

Rappel

Les établissements et les personnalités qui souhaiteraient figurer dans la prochaine édition du répertoire sont priés de remplir les questionnaires appropriés (Annexes I et II) qui se trouvent à la fin de cet ouvrage et de les envoyer à M. le Directeur Régional, Bureau Régional pour l'Afrique du PNUÉ, P.O. Box 30552, Nairobi, Kenya.

Remerciements

Il n'aurait pas été possible de publier ce répertoire sans la coopération des établissements et des personnalités des pays qui y figurent, ainsi que la recherche et le travail de compilation effectué par M. le Professeur Edward Rugumayo.

C H A P T E R O N E

AFRICAN TERTIARY LEVEL INSTITUTIONS WITH ACTIVE
ENVIRONMENTAL TRAINING PROGRAMMES

CHAPITRE PREMIER

ETABLISSEMENTS AFRICAINS OFFRANT DES PROGRAMMES
DE FORMATION EN MATIERE D'ENVIRONNEMENT

CHAPITRE PREMIER
ETABLISSEMENTS AFRICAINS OFFRANT DES PROGRAMMES
DE FORMATION EN MATIERE D'ENVIRONNEMENT

A L G E R I A

1. INSTITUT NATIONAL DES SCIENCES DE LA MER ET DE L'AMENAGEMENT DU LITTORAL
B.P. 90 ALGER 1ER NOVEMBRE. AMIRAUTE
ALGERIA
Téléphone 62-73-19/62-66-59.
Télex 53-414 - CROP DZ
 - a. Programmes/cours offerts
Programmes d'études des sciences de la mer.
 - b. Objectifs visés par le cours

Acquisition de connaissances en sciences de la mer pour l'amélioration de la gestion des ressources marines.
 - c. Profil environnemental des cours

L'Institut offre des cours sur l'environnement, des cours ayant des composantes touchant à l'environnement et des cours de caractère général destinés à sensibiliser les dirigeants et les responsables aux grands problèmes d'environnement. Il existe des cours spécifiques sur les thèmes suivants: contrôle des dangers en matière d'environnement, planification de l'environnement, études du milieu marin.
 - d. Diplômes exigés
 1. Baccalauréat pour les techniciens supérieurs;
 2. Tronc commun pour les ingénieurs et,
 3. DES pour le second cycle de l'enseignement supérieur
 - e. Autres conditions: Aucune
 - f. Année universitaire: De septembre à juin
 - g. Durée de la formation: varie en fonction des qualifications
 - h. Titre décerné à l'issue du cours
Certificat de technicien supérieur, ou diplôme du second cycle de l'enseignement supérieur.
 - i. Bourses d'études: Bourses du Gouvernement ou bourses privées
 - j. Personnel enseignant: Satisfaisant
 - k. Matériel et infrastructure: Satisfaisants
 - l. Programmes de recherche et développement: Satisfaisants

- m. Accès aux installations d'éducation et de formation: Satisfaisant
- n. Nouveaux cours
L'établissement a l'intention d'offrir des cours sur l'aménagement, la gestion et la protection du littoral; ce programme comprendra:
- introduction aux sciences de la mer;
- aménagement du littoral, I, II, III;
- océanographie générale, aspects géographiques, physiques et chimiques;
- environnemnt et travaux côtiers.
- o. Participation de l'établissement à la sensibilisation du public:
Active. Thèmes abordés: pollution marine, espèces marines menacées, surexploitation des zones de la pêche, zones humides et aménagement du littoral.
- p. L'établissement est-il disposé à participer au réseau de formation en matière d'environnement mis en place par le PNUE?
Réponse positive.
- q. Nom de la personne à laquelle peuvent être adressées les demandes de renseignements
Le Directeur de l'Institut.
- r. Nom et titre de la personne à laquelle demander les formulaires d'inscription
Le Directeur des Etudes.
2. UNIVERSITE SCIENTIFIQUE ET TECHNOLOGIQUE HOUARI BOUMEDIENNE

B.P. 32 El-Alia, Bab-Ezzouar, W.D'alger, Algeria
Téléphone: 751285
Télex: 64343 USTA-DZ
- a.I DEPARTEMENT CHARGE DE L'ADMINISTRATION DU COURS/PROGRAMME:
Institut de chimie industrielle
- b Programmes/cours offerts
Génie civil écologique
- c. Objectifs visés par les cours
Impartir des aptitudes dans la gestion de l'environnement et de ses ressources, conception de systèmes de lutte contre la pollution.
- d. Profil environnemental du cours
L'Institut offre des cours en environnement et des cours comportant des composantes d'environnement. Les cours individuels couvrent les sujets suivants dans le domaine de l'environnement: La sécurité chimique, la lutte contre les risques posés à l'environnement, la technologie de l'énergie, les aspects écologiques de la géologie (industrie minière), préparation de l'environnement, évaluation de l'impact sur l'environnement, industrie et environnement. Parmi les autres cours, on relève: écologie, microbiologie, contrôle de la pollution atmosphérique, le traitement de l'eau et celui des matières solides.
- e. Diplômes exigés
Baccalauréat de l'enseignement secondaire (mathématiques, mathématiques et technique, sciences)

- f. Autres conditions
Néant
- g. Nombre d'étudiants par promotion: 50 maximum
- h. Année universitaire: De septembre à juillet
- i. Durée de la formation: 5 ans pour la licence; 3 ans pour le Diplôme supérieur de formation technologique.
- j. Titre décerné à l'issue du cours
Diplôme d'Ingénieur et Doctorat
- k. Montant des frais d'études: non mentionné
- l. Bourses d'études: Bourses du gouvernement, ONG, Bourses privées.
- m. Personnel enseignant: Satisfaisant
- n. Matériel et infrastructure: Satisfaisants
- o. Programmes de recherche et développement: Satisfaisants
- p. Accès aux installations d'éducation et de formation: Satisfaisant
- q. Nouveaux cours:
Un cours d'une année pour former aux questions d'environnement. Il doit consister en divers types de diplômes d'ingénieur, convenant à des postes techniques de services centralisés dans diverses directions ministérielles. Il doit comprendre l'écologie, la microbiologie du milieu, le traitement de l'eau et des déchets solides, l'énergie alternative, l'évaluation de l'impact et les modèles mathématiques appliqués à l'environnement.
- r. Participation de l'établissement à la sensibilisation du public:
Active. L'établissement a prêté son concours à l'organisation d'un séminaire national sur l'environnement en 1985. Les questions traitées comprenaient: l'environnement et la santé, la protection de l'environnement et la pollution industrielle. Divers problèmes d'environnement causés par les métaux lourds (plomb, zinc, mercure, etc.), par les résidus solides et les déchets industriels.
- s. L'établissement est-il disposé à participer au réseau de formation en matière d'environnement mis en place par le PNUE?
Réponse positive.
- t. Nom de la personne à laquelle peuvent être adressées les demandes de renseignements
Le Directeur de l'Institut de Chimie industrielle
- u. Nom et titre de la personne à laquelle demander les formulaires d'inscription
Le Directeur de l'Institut de Chimie industrielle
- a.II DEPARTMENT CHARGE DE L'ADMINISTRATION DU COURS / PROGRAMMES:
Institute de Biologie

- b. Programmes/cours offerts
L'Institut offre plusieurs cours en matière d'environnement et des cours comportant une composante d'environnement ainsi qu'il est décrit ci-dessous.
- c. Objectifs visés par les cours:
Former les étudiants à comprendre les problèmes en matière d'environnement et à les résoudre en partant de la connaissance acquise dans l'étude des écosystèmes naturels.
- d. Profil environnemental du cours:
L'Institut offre des cours couvrant les sujets ci-après: lutte contre les risques posés à l'environnement, lutte contre la désertification, technologie de l'énergie, conception de l'environnement, évaluation de l'impact sur l'environnement, gestion de l'environnement, génie et technologie de l'environnement, la foresterie, la gestion des ressources forestières, industrie et environnement, science du milieu marin, ressources naturelles, la gestion et la conservation de la flore et de la faune sauvages, cours sur la pollution relative au fonctionnement des écosystèmes marins et terrestres, à l'agriculture, la microbiologie et la biophysique.
- e. Diplômes exigés
Baccalauréat plus deux ans de biologie des organismes et populations.
- f. Autres conditions: Non mentionnées
- g. Nombre d'étudiants par promotion: Varie de 20 à 60
- h. Année universitaire: de septembre à juillet
- i. Durée de la formation: 2 ans pour le diplôme, 4 ans pour la licence
- j. Titre décerné à l'issue du cours:
diplôme et licence
- k. Montant des frais d'études: non indiqué
- l. Bourses d'études:
demande directe émanant de l'étudiant, recommandation du gouvernement ou de l'ONG.
- m. Personnel enseignant: Très bon.
- n. Matériel et infrastructure: Satisfaisants
- o. Programmes de recherche et développement: Satisfaisants
- p. Accès aux installations d'éducation et de formation: Satisfaisant
- q. Nouveaux cours:
Génie écologique (5 ans), inauguré en 1988; génie de l'agriculture marine; génie microbiologique
- r. L'établissement est-il disposé à participer au réseau de formation en matière d'environnement mis en place par le PNUE?
Réponse positive
- s. Nom de la personne à laquelle peuvent être adressées les demandes de renseignements
Professor M. Bensalem, Directeur de l'Institut de Biologie

- t. Nom et titre de la personne à laquelle demander les formulaires d'inscription
Services estudiantins universitaires.

B E N I N

3. UNIVERSITE NATIONALE DU BENIN
B.P. 526, Abomey-Calavi, République populaire du Bénin
Téléphone: 36 00 74, Poste 336
- a. Département chargé de l'administration du cours/programme:
Géographie et planification régionale
- b. Programmes/cours offerts:
Eléments d'écologie et de télédétection.
- c. Objectifs visés par les cours:
Donner aux étudiants des connaissances et des compétences leur permettant de contrôler les paramètres environnementaux.
- d. Profil environnemental du cours:
Le département offre une formation en matière d'environnement dans les domaines suivants: contrôle des risques en matière d'environnement, contrôle de la désertification, planification de l'environnement, évaluation d'impact sur l'environnement, gestion et conservation de la faune et de la flore sauvages
- e. Diplômes exigés:
Baccalauréat et une année d'étude à l'université.
- f. Autres conditions: Aucune
- g. Nombre d'étudiants par promotion: 183 pour l'année 1987-88
- h. Année universitaire: D'octobre à mai
- i. Durée de la formation: Un an
- j. Titre décerné à l'issue du cours: Certificat/Diplôme
- k. Bourses d'études: Bourses du gouvernement ou bourses privées
- l. Personnel enseignant: Satisfaisant
- m. Matériel et infrastructure: Satisfaisants
- n. Programmes de recherche et développement: Très bons.
- o. Accès aux installations d'éducation et de formation: Satisfaisant
- p. Nouveaux cours:
Ecologie et urbanisme; création de complexes côtiers; industrie et environnement
- q. Participation de l'établissement à la sensibilisation du public:
Active. Thèmes abordés: écologie en action; recherche sur les forêts et leur gestion; programmes de contrôle de la désertification.

- r. Renseignements complémentaires:
Le département a l'intention d'introduire des composantes environnementales dans les sciences naturelles et les sciences de la santé.
- s. L'établissement est-il disposé à participer au réseau de formation en matière d'environnement mis en place par le PNUE?
Réponse positive.
- t. Nom de la personne à laquelle peuvent être adressées les demandes de renseignements:
Professeur Francis Flash Dossou, Chef du Département de géographie.
- u. Nom et titre de la personne à laquelle demander les formulaires d'inscription:
Le Recteur, Université nationale du Bénin.

B O T S W A N A

- 4. UNIVERSITY OF BOTSWANA
P/Bag 0022, Gaborone
BOTSWANA
Telephone 351151, Telex 2429 BD
- a.I. DEPARTMENT OF ENVIRONMENTAL SCIENCE
- b. Programmes/courses offered: Environmental Science
- c. Programme objectives
To impart sound knowledge of environment and man-environment relations.
- d. Programme outline
The programme is open to science and social science and humanities students. It is offered as a single major or combined major; or a single major with a teaching minor. The following are the principal topics covered: Quantitative techniques used in environmental science; human geography, physical environment, practical skills (interpretation of topographical maps, drafting skills in design and production of maps and diagrams); land use and development planning in developing countries, settlement studies; physical setting, water problems, population and settlements, mining, land forms, climate and man (environmental hazards and rational environmental management), population geography, soil science, geomorphology, regional development, economic geography, hydrology and utilization and conservation of natural resources.
- e. Academic entrance requirements
Cambridge Overseas School Certificate (or equivalent).
- f. Number of students: About 300 take the department's course each year
- g. Academic year: August to May
- h. Duration of training: 4 years

- i. Type of award at completion: B.Sc , B.A. or B.Ed. in a Combined Major Programme. B.Sc. or B.A. as a Single Major in Environmental Science.
- j. Staffing: Very good ,
- k. Equipment and infrastructure: Very good
- l. On-going research and development programme: Very good

- m. Availability of education and training facilities: Very good
- n. Proposed future courses/programmes
Introduction of Masters programme; large expansion of the Department of Environmental Science planned, i.e. 14 academics + 5 technical staff by 1990; complete new suite of laboratories and lecture rooms.
- o. Willingness to join UNEP Environmental Training Network: Positive
- p. Name of official to whom enquiries may be addressed
Professor H.J. Cooke, Department of Environmental Science.
- q. Name and title of person from whom admission forms may be obtained
Admissions Officer

- aII. DEPARTMENT OF PHYSICS
Faculty staff is engaged in low-cost instrumentation for environmental monitoring, cloud physics, renewable energy resources and pollution.
- b. Environmental programmes/courses offered:
The department offers the following two courses: energy technology and environmental physics.
- c. Course objective:
To offer training in physics related to atmosphere, agriculture and energy.
- d. Academic entry requirements: Year III B.Sc. (Physics)
- e. Other entry requirements: None
- f. Number of students admitted at a time: 30
- g. Academic year (beginning and end): August to April
- h. Duration of training:
One academic year, being part of a 4-year B.Sc. programme.
- i. Type of award/s at completion:
B.Sc. degree.
- j. Cost of course (US\$): Not given
- k. Sponsorship: Government, NGO, private.
- l. Staffing: Adequate
- m. Equipment and infrastructure: Adequate
- n. On-going research and development/programme: Adequate

- o. Availability of education and training facilities: Adequate
- p. Proposed future courses: None
- q. Willingness to join UNEP environmental Training Network: Positive
- r. Name of person to whom enquiries may be addressed:
Dr. K.R.S. Devan
- s. Name and title of person from whom admission forms may be obtained:
Admission Secretary, University of Botswana

a.III DEPARTMENT OF BIOLOGY

- b. Environmental programmes/courses offered:
The department offers courses in environment and courses with environmental components as follows: B.Sc. courses in ecology, entomology include the following topics: chemical safety, control of environmental hazards, desertification control, environmental management and impact assessment, natural resources, soil conservation and management, water and water resources management, wildlife management and conservation.
- c. Course objective:
To equip students with knowledge of ecology and environmental factors such as man/animal/plant interactions.
- d. Environmental profile of the course/s:
The B.Sc. programme is open to all students having the necessary entrance requirements and is normally offered as a combined major. Within the Biology Department courses in ecology, applied entomology, parasitology, fresh water biology, plant taxonomy, conservation and other environmental topics relevant to Southern Africa are offered.
- e. Academic entry requirements:
Cambridge Overseas School Certificate (or equivalent).
- f. Other entry requirements: Pre-science course success
- g. Number of students admitted at a time: Up to 165
- h. Academic year (beginning and end): August to May
- i. Duration of training: Part of a four-year B.Sc. degree programme
- j. Type of award/s at completion: B.Sc. (Biology)
- k. Cost of course (US\$): Not given
- l. Sponsorship: Government, NGO, private
- m. Staffing: Adequate
- n. Equipment and infrastructure: Adequate
- o. On-going research and development/programme: Adequate

- p. Availability of education and training facilities: Adequate
- q. Proposed future courses:
An M.Sc. course has been proposed on Pest and Conservation Management which will include much of the above, if approved. Also an inter-departmental M.Sc. has been proposed.
- r. Willingness to join UNEP environmental Training Network: Positive
- s. Name and title of person to whom enquiries may be addressed:
Prof. Christopher Wilkman
- t. Name and title of person from whom admission forms may be obtained:
Admissions officer.

a.IV. DEPARTMENT OF CHEMISTRY

- b. Environmental programmes/courses offered:
Third year Chemistry (C310)/Fourth year Chemistry(C410)
- c. Course objective:
To impart broad general training in chemistry with special emphasis on analysis as relevant to Botswana.
- d. Environmental profile of the courses:
The courses touch on various topics including: chemical safety, control of environmental hazards, energy technology, industry and environment, water and water resources management, etc.
- e. Academic entry requirements:
To take C310 Chemistry, a pass in Second year Chemistry is required. No regulations cover transfer from other institutions.
- f. Other entry requirements:
Application fee of P.10 is charged. Applications to be received by 1 April. At least a pass in Year 2 ancillary mathematics.
- g. Number of Students admitted at a time:
No formal limit at present.
- h. Duration of training:
The courses are offered during the third and fourth years of a 4-year B.Sc degree course.
- i. Type of award/s at completion:
The course is part of a 4-year B.Sc. degree course.
- j. Cost of course (US\$):
1800 per annum for non-citizens for tuition.
- k. Sponsorship:
All applicants apply directly
- l. Staffing: Adequate

- m. Equipment and infrastructure: Adequate
- n. On-going research and development/programme: Not adequate
- o. Availability of education and training facilities: Adequate
- p. Proposed future courses:
M.Sc in Analytical Chemistry. Emphasis will be on environmental analysis, eg. water quality, pollution levels, trace metal analysis.
- q. Willingness to join UNEP environmental Training Network: Positive
- r. Name and address of person to whom enquiries may be addressed
Dr. J. Woollard, Head of Chemistry.
- s. Name and title of person from whom admission forms may be obtained:
Admissions Secretary.

B U R K I N A F A S O

5. CENTRE REGIONAL DE TELEDETECTION

BP 1762 Ouagadougou

BURKINA FASO

Téléphone 300199, 300635, 300204. Téléex 5322 BF

- a. Département chargé de l'administration du cours/programme :
Département de la formation.
- b. Programmes/cours offerts:
Télé-détection appliquée
- c. Objectifs visés par les cours:
Connaissance des techniques de télé-détection dans divers domaines d'études appliquées.
- d. Profil environnemental des cours:
Le centre offre des cours touchant à l'environnement et des cours de caractère général à l'intention des dirigeants et des responsables; les cours ont des composantes environnementales telles que: le contrôle des dangers en matière d'environnement, le contrôle de la désertification, les aspects environnementaux de l'exploitation minière, la gestion de l'environnement, l'évaluation d'impact sur l'environnement, la planification de l'environnement, la foresterie et la gestion des ressources forestières, l'industrie et l'environnement, les ressources naturelles, la conservation et la gestion des sols, la gestion et la conservation de la faune et de la flore sauvages.
- e. Diplômes exigés
Licence/Maîtrise en ingénierie
- f. Nombre d'étudiants par promotion: 20
- g. Année universitaire: D'octobre à juin

- h. Durée de la formation: Une année universitaire
- i. Titre décerné à l'issue du cours:
Certificat d'études supérieures en télédétection
- j. Montant des frais d'études: Bourses du gouvernement ou bourses privées.
- k. Bourses d'études: Bourses du gouvernement ou bourses privées.
- l. Personnel enseignant: Satisfaisant
- m. Matériel et infrastructure: Satisfaisants
- n. Programmes de recherche et développement: Très bons.
- o. Accès aux installations d'éducation et de formation: Satisfaisant
- p. Nouveaux cours:
Maîtrises de télédétection dans divers domaines d'études appliquées
production de la végétation au niveau régional collecte de données de
base, introduction aux systèmes d'information en géographie.
- q. Participation de l'établissement à la sensibilisation du public:
Active. Thèmes abordés: Inventaire de l'environnement (forêts
pâturages), utilisation des terres, surveillance de l'environnement à
l'aide de données temporelles, surveillance de la remise en état,
surveillance des feux de brousse; études des bassins versants,
cartographie, caractérisant les paramètres hydrographiques et identifiant
les risques d'érosion des sols.
- r. Renseignements complémentaires:
Les cours du Centre sont donnés en français et en anglais
- s. L'établissement est-il disposé à participer au réseau de formation en
matière d'environnement mis en place par le PNUE?
Réponse positive
- t. Nom de la personne à laquelle peuvent être adressées les demandes de
renseignements:
Dr. J.P. Okang, Directeur de la formation
- u. Nom et titre de la personne à laquelle demander les formulaires
d'inscription:
Dr. J.P. Okang, Directeur de la formation

C A M E R O O N

- 6. INSTITUT DE FORMATION ET DE RECHERCHE DEMOGRAPHIQUES (IFORD)
B.P. 1556, Yaoundé,
CAMEROON
Tél: 22.24.71, Télex 8441 KN (MULPOC), 8304 KN (PNUD)
- a. Département chargé de l'administration du cours/programme:
Département de la formation

- b. Programmes/cours offerts:
Population et environnement
- c. Diplômes exigés:
Licence + admission au concours
- d. Autres conditions:
Les étudiants doivent poursuivre des études à temps complet à l'institut, après avoir réussi au concours et obtenu la licence ou le diplôme (ingénierie) avec comme matière principale les statistiques. L'institut accepte parfois des auditeurs libres. Les admissions se font après examen de chaque cas.
- e. Nombres d'étudiants par promotion: 35 à 40
- f. Année universitaire: De novembre à décembre
- g. Durée de la formation: Deux mois
- h. Titre décerné à l'issue du cours:
Pas de titre particulier. Ce cours est donné régulièrement en deuxième année
- i. Bourses d'études: Les étudiants à temps complet bénéficient de bourses accordées par le Fonds des Nations Unies pour la population
- j. Personnel enseignant: Satisfaisant
- k. Matériel et infrastructure: Satisfaisants.
- l. Programmes de recherche et développement: Satisfaisants
- m. Accès aux installations d'éducation et de formation: Satisfaisant
- n. Nouveaux cours: Aucun
- o. Renseignements complémentaires
Le cours est ouvert aux auditeurs libres. L'admission se fait après examen de chaque cas. L'Institut peut organiser des séminaires sur un thème requis si le besoin s'en fait sentir et si des fonds peuvent être trouvés pour cela.
- p. L'établissement est-il disposé à participer au réseau de formation en matière d'environnement mis en place par le PNUE?
Réponse positive
- q. Nom de la personne à laquelle peuvent être adressées les demandes de renseignements
Prof. M. Sala Diakanda, Directeur
- r. Nom et titre de la personne à laquelle demander les formulaires d'inscription
Mme. Bouh-Mana, Secrétaire de l'IFORD

C O N G O

7. ECOLE SUPERIEURE (SOCIALE ET POLITIQUE) DU PARTI
Samora Machel, de Brazzaville, B.P. 1118, Brazzaville
CONGO
- a. Département chargé de l'administration du cours/progamme
Département des Etudes
- b. Programmes/cours offerts
Un cours d'un an en administration et gestion, comportant des éléments de formation en matière d'environnement
- c. Objectifs visés par le cours
1. Donner la connaissance conceptuelle nécessaire à une gestion rationnelle de l'environnement
2. Analyser les problèmes d'environnement du pays dans le cadre des politiques nationales
3. Apprendre aux futurs décideurs à prendre en compte l'environnement dans toute la planification relative au développement socio-économique
- d. Profil environnemental du cours
1. Eléments de gestion de l'environnement
2. Problèmes d'environnement aux niveaux local, régional et international et leurs solutions
- e. Diplômes exigés
1. Ouvert à tout cadre ou fonctionnaire chargé du développement communautaire
2. Titulaires du baccalauréat
3. Ouvert aux fonctionnaires congolais et aux fonctionnaires des autres Etats africains francophones
- f. Nombre d'étudiants par promotion: Non spécifié
- g. Année universitaire: Un an
La composante formation en matière d'environnement représente 108 heures de cours
- i. Titre décerné à l'issue du cours
Diplôme supérieur des sciences sociales et politiques
- j. Montant des frais d'études: Gratuit pour les citoyens congolais
- k. Bourses d'études: Non spécifié
- l. Personnel enseignant: Satisfaisant
- m. Matériel et infrastructure: Satisfaisants
- n. Programmes de recherche et développements:
Recherche sur les rapports entre l'environnement et le développement dans le contexte des politiques nationales du Congo

- o. Accès aux installations d'éducation et de formation: Satisfaisant
- p. Nouveaux cours
Pas de détails disponibles sur les cours envisagés dans l'avenir.
Cependant des cours de formation de courte durée sont organisés toute l'année
- q. Participation de l'établissement à la sensibilisation du public
Par voie d'affiches
- r. Renseignements complémentaires
1. Le cours de formation en matière d'environnement décrit ci-dessus ne représente qu'une composante du cours d'une année.
2. Le cours est donné entièrement en français
- s. L'établissement est-il disposé à participer au réseau de formation en matière d'environnement mis en place par le PNUE?
Réponse positive
- t. Nom de la personne à laquelle peuvent être adressées les demandes de renseignements
André Boudzoumou, Directeur des Etudes
- u. Nom et titre de la personne à laquelle demander les formulaires d'inscription
André Boudzoumou, Directeur des Etudes

C O T E D' I V O I R E

8. BANQUE AFRICAINE DE DEVELOPPEMENT
01 B.P. 1387, Abidjan
COTE D'IVOIRE
Tél: 32-07-11; 32-50-10. Téléx 23717 AFDEV
- a. Programmes offerts
La Banque Africaine de développement organise des stages et des séminaires de formation sur des sujets variés comme le développement des techniques bancaires et la planification et évaluation sectorielles. Ces séminaires sont ouverts aux représentants des agences concernées comme les banques nationales de développement ou les agences gouvernementales des pays membres.
- Les séminaires externes organisés par la Banque comportent l'étude de projets et programmes. Lorsque cela est nécessaire la Banque organise des stages de formation des personnels sur les aspects environnementaux des activités de développement. Parmi les thèmes qui ont fait l'objet de discussions, citons l'évaluation économique de l'impact sur l'environnement et s'attache à la promouvoir quand l'occasion se présente, par exemple lors des conférences de presse qui ont lieu à l'occasion des réunions annuelles de la Banque.
- b. L'établissement est-il disposé à participer au réseau de formation en matière d'environnement mis en place par le PNUE?
Réponse positive

- c. Nom de la personne à laquelle peuvent être adressées les demandes de renseignements

Mme. Inger Bertilsson, Coordonnatrice de l'environnement, CEPR

E G Y P T

9. MENOUFIA UNIVERSITY

SHEBIEN EL KOOM, MENOUFIA GOVERNORATE, EGYPT

Tel: 321987-321986-321027

- a. Department responsible for the course/programme

Faculty of Arts, Geography Department

- b. Programmes/courses offered:

Special Topic, Economic Geography and Ocean Geography.

- c. Environmental profile of the course

The department offers courses with environmental components. Specific courses include: desertification control industry and environment, marine environmental science, and natural resources management.

- d. Academic requirements

Courses in human and physical geography, statistics and computer.

- e. Other requirements

None

- f. Number of students admitted at a time: 50

- g. Academic year: October to May

- h. Duration of training: 3 years

- i. Type of award at completion: Bachelors degree

- j. Cost of the course: Not indicated

- k. Sponsorship: Government/private

- l. Staffing: Not adequate

- m. Equipment and infrastructure: Not adequate

- n. Ongoing research and development programme: Adequate

- o. Availability of education and training facilities: Adequate

- p. Proposed future courses

It is intended to start a new course titled Rural Environment - its survey, resources (both human and material) planning and development. Staff in Geography and Sociology departments will cooperate in teaching and training beside relevant specialists.

- q. Institutional participation in environmental awareness building among the public: Not active

- r. Additional information: None
- s. Willingness to join UNEP Environmental Training Network: Positive
- t. Name of official to whom enquiries may be addressed
Prof. Dr. Samir Noeim Ahmed, Dean, Faculty of Arts
Dr. Salah Abdel Gaber Eisa, Chairman, Geography Dept.
- u. Name and title of person from whom admission forms may be obtained
Mr. Abdel Salam Shauki, Registrar, Faculty of Arts.

10. FACULTY OF AGRICULTURE

Moshtohor, Kaliobia, Zagzig University, Benha Branch,
EGYPT
Telephone (013) 370306 Tokh, Kalubia. Telex 92860 ZUUN

- a. Department responsible for the programme
Plant Protection Department
- b. Programmes/courses offered
Environmental pollution by pesticide residues
- c. Programme/course objectives
To throw light on the problems of environmental pollution by pesticide residues and to protect small farmers from the misuse of pesticides.
- d. Course outline
The course is a practical one with emphasis on monitoring and measuring the quantity of pesticide residues in the soils. It covers chemical safety, control of environmental hazards, soil conservation and management, water and water resources management, wildlife management and conservation. Practical field work includes: a survey of the quantities and types of pesticides used from 1952 to date; monitoring pesticide residues in two governorates in Egypt (Monifia and Kalubia); studying the relationship between the quantities of pesticides used and the number of fatal cases by cancer; studying the economic and environmental pollution by pesticide residues.
- e. Academic entrance requirement: B.Sc. in Agriculture
- f. Academic year: October to June
- g. Type of award at completion: Master of Science
- h. Cost of the course: US\$ 300
- i. Admission to course: By direct application from student
- j. Staffing: Adequate
- k. Equipment and infrastructure: Very good
- l. On-going research and development programme: Very good
- m. Availability of education and training facilities: Very good

n. Institutional participation in environmental awareness building among the public

Professor Abdel-Gawad has presented 78 television programmes about environmental pollution on Egyptian television. The subject of the programmes include: Sea and ocean pollution, food contamination, solid waste and their side effects. Environmental pollution by insects, the effect of environmental pollution on wildlife, air pollution, etc.

The Faculty of Agriculture is a centre for international and national conferences on environmental pollution. The First (1981) and Second (1985) International Congress on Soil Pollution and Protection from Pesticide Residues were held there.

o. Proposed future courses

A project to protect new reclaimed areas from environmental pollution.

p. Willingness to join UNEP Environmental Training Network: Positive

q. Name of official to whom enquiries may be addressed

Prof. Dr. Ahmed Abdel-Wahab Abdel-Gawad, Plant Protection Department

r. Name and title of official from whom admission forms may be obtained

Prof. Dr. Ibrahim Gamal El-Dean; Dean, Faculty of Agriculture.

11. INSTITUTE OF EFFICIENT PRODUCTIVITY

ZAGAZIG UNIVERSITY, ZAGAZIG, EGYPT

Tel: 322918. Telex 92860 ZU UN

a. Department responsible for the course/programme:

1. Soil Science, & 2. Agronomy

b. Programme/courses offered

Soil Science Dept offers three courses:

1. Soil Conservation and Management
2. Water and Water Resources Management
3. Desertification Control

Agronomy Dept offers: Tropical Crops Production

c. Course objectives

1. To equip students with knowledge and skills of environmentally sound management of soil.
2. To get students acquainted with water management practices including modern methods of irrigation and equipment of water control.
3. To acquaint students with desertification problems and the means with which to tackle them.
4. To impart skills of sound tropical crop production and management practices.

d. Environmental profile of the course

These are four short training courses covering soil conservation and management, water and water resources management, agronomical practices in semi-arid regions, desertification control as well as sound tropical crop production.

- e. Academic requirements
B.Sc. (Agriculture) or Higher Diploma in Agriculture
- f. Other requirements: None
- g. Number of students admitted at a time: 10
- h. Academic year: July to August
- i. Type of award at completion: Certificate
- j. Cost of the course: US\$1000
- k. Sponsorship: Government/private
Admission by direct application from the student
- l. Staffing: Adequate
- m. Equipment and infrastructure: Adequate
- n. Ongoing research and development programme: Adequate
- o. Availability of education and training facilities:
Very good. There is a well equipped computer centre
- p. Proposed future courses: None
- q. Institutional participation in environmental awareness building among the public: Active
- r. Additional information
There are plans to modify existing courses to include soil and water pollution
- s. Willingness to join UNEP Environmental Training Network: Positive
- t. Name of official to whom enquiries may be addressed
Prof. Dr. M. Wagdi Abd El-Hamid, Head, Soil Science Dept.
- u. Name and title of person from whom admission forms may be obtained
Prof. Dr. F.T. Oraby, Dean of the Institute

12. THE INSTITUTE OF ENVIRONMENTAL STUDIES AND RESEARCH

AIN SHAMS UNIVERSITY

Abbasia, Cairo

EGYPT

Tel: 835594. Telex 94070 USHMS UN

- a. Departments responsible for the courses/programmes
The Institute is composed of seven departments which offer the various courses detailed below. The departments are:
 - 1. Department of Biological & Environmental Sciences
 - 2. Department of Medical Sciences
 - 3. Department of Humanities
 - 4. Department of Pedagogy and Culture
 - 5. Department of Economy, Law and Administrative Development
 - 6. Department of Engineering
 - 7. Department of Agricultural Sciences

b. Programmes/courses offered

Certificate, diploma, masters and Ph.D in Environmental Science

c. Environmental profile of the courses

The Institute offers courses in environment, courses with environmental components, as well as general courses in environmental awareness for decision-makers and policy-makers. The following specific courses are offered by the Institute's departments. Chemical safety, control of environmental hazards, desertification control, energy technology, environmental aspects of geology (mining), environmental design, environmental management, environmental impact assessment, environmental technology/engineering, natural resources, soil conservation and management, water and water resources management, environmental remote sensing, environmental degradation, pollution (soil, water, air, food), the environment and human health, regional and urban environmental planning, industry environment and management, environment and social status, environmentally sustainable development, environmental legislation, economics of environment and development, ecosystems, environmental education.

d. Course objectives

1. To spread environmental awareness and knowledge.
2. To prepare students to join post-graduate courses.
3. To conduct integrated research and studies in environment.
4. To spread information related to environment and to help the state with planning for development of natural resources in a sustainable way.
5. To take part in solving environmental problems in different localities and governorates.

e. Academic requirements

1. For Certificate: a general level of education.
2. For Diploma: A Degree of Licence of Bachelor from any Egyptian university, or any equivalent degree in another academic institution accredited by the University.
3. For Masters Degree: A Bachelor or Licence (with grade "Good" at least) in one of A.E.R universities, or an equivalent degree in another academic institution accredited by the University.
4. For Ph.D: A Masters degree in Environment from the Institute, University of Ain Shams or equivalent degree of another university accredited by the University and approved by the Institute.

f. Other requirements

1. For Diploma: Passing an interview plus at least three years in a field related to environmental studies.
2. For Masters degree: Passing an interview plus at least three years in one of the environmental fields.
3. For Ph.D: Those from other universities are required to take written or oral examination in some subjects specified by the Institute.

- f. Number of students admitted at a time: 432
- g. Academic year: October to June
- h. Duration of training
1. One academic year for Diploma
2. Two years for Masters' Degree
3. At least two calendar years from the date of registration for Ph.D.
- i. Type of award at completion
1. A Diploma in Environmental Sciences
2. A Masters Degree in Environmental Sciences
3. Ph.D. in Environmental Sciences
- j. Cost of the course: Free for Egyptians
- k. Sponsorship: Government
- l. Staffing: Very good
- m. Equipment and infrastructure: Not adequate
- n. Ongoing research and development programme: Adequate
- o. Availability of education and training activities: Very good
- p. Proposed future courses
1. Bioengineering
2. Genetic resources
3. The following specialized courses are going to be established:
(a) Special Diploma in Desertification
(b) Special Diploma in Desert Reclamation
(c) Special Diploma in Environmental Impact Assessment
(d) Special Diploma in Environmental Remote Sensing
- q. Institutional participation in environmental awareness building among the public
The Institute organises conferences, meetings and symposia. In 1986/87 academic year an 8-day conference on "Environmental Science and Studies in Egyptian Universities" and "Environmental-Cultural Week" as well as a symposium on "Risk Assessment in Agriculture and Industry Activities" were organised by the Institute. In addition, a weekly meeting is held with an eminent environmental scientist or official figure by the Institute. Media discussions have included: pollution (air, soil and food), environmental conservation, environmental control and management, and natural resources.
- r. Willingness to join UNEP Environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed
Prof. Mohsen A. Tawfik, Dean, Institute of Environmental Studies and Research
- t. Name and title of person from whom admission forms may be obtained
The Registrar, Institute of Environmental Studies

13. UNIVERSITY OF ALEXANDRIA

INSTITUTE OF GRADUATE STUDIES AND RESEARCH

163 Horreya Avenue, Chatby 21526, P.O. Box 832, Alexandria, Egypt
Tel: 4225007/4227942' Telex: 54467 UNIVR UN Atten UNARC

a. Department responsible for environmental courses/programmes
Dept. of Environmental Studies

The Dept. has 5 scientific branches:

1. Branch of Physical Sciences of Environment
2. Branch of Environmental Technology
3. Branch of Biological Sciences of Environment
4. Branch of Environmental Health
5. Branch of Environmental management, economics and law

b. Programmes/courses offered
Certificate, Diploma, Masters and Ph.D. in Environmental Studies

c. Environmental profile of the courses

The Dept. offers postgraduate courses on two levels of the following topics: Physical environment, remote sensing, environmental impact assessment, operations research, environmental modelling, energy models, air pollution, environmental systems analysis, environmental health, urban development, environmental law, natural resources, water resources, desertification, environmental stress.

d. Course objectives

1. To spread and encourage multidisciplinary integrated understanding of environment
2. To graduate experts capable of carrying out specialised integrated problem solving and research in environmental sciences
3. To carry out research in cooperation with state authorities in order to help assess natural resources and protect environment against pollution.

e. Academic requirements

1. For Certificate: a general level of education
2. For Diploma: degree of Bachelor from any Egyptian university or any equivalent degree in another academic institution accredited by the university.
3. For Masters Degree: Bachelor (with grade "Good" at least) from one of the Egyptian universities, or an equivalent degree from another academic institution accredited by the university.
4. For Ph.D.: Masters degree in Environment from university of Alexandria or an equivalent degree from another university accredited by the university and approved by the Institute.

f. Other requirements

For Ph.D. : those from other universities are required to take written examination in subjects specified by the department.

g. Number of students at a time: 150

h. Academic year: October to June except for Diploma of Energy Conservation (12 months).

- i. Duration of training
 - 1. One calendar year for Diploma (12 months)
 - 2. At least two years for Masters degree
 - 3. At least two calendar years from the date of registration for Ph.D.
- j. Type of award at completion
 - 1. Diploma in Environmental Studies
 - 2. Masters Degree in Environmental Studies
 - 3. Ph.D. in Environmental Studies
- k. Cost of course: free for Egyptians
- l. Sponsorship: Government
- m. Staffing: Adequate
- n. Equipment and infrastructure: Not adequate
- o. On-going research and development programme: Adequate
- p. Availability of education and training activities: Good
- q. Proposed future courses
 - 1. Remote Sensing
 - 2. Air Pollution
 - 3. Environmental Radioactivity, Genetic Resources
 - 4. The following specialized courses are going to be established:
 - a) Diploma in Environmental Remote Sensing
 - b) Diploma in Environmental Impact Assessment
 - c) Diploma in Environmental Instrumentation
- p. Institutional participation in environmental awareness-building among the public

The Dept. holds weekly meetings, organises conferences (conference on Environmental Studies, April 1988), holds specialised courses, open for university graduates and contributes significantly to general lectures at various organisations.
- r. Willingness to join UNEP Environmental training Network: Positive
- s. Name of official to whom enquiries may be addressed

Prof. M. El-Raey, Head, Dept. of Environmental Studies
- t. Name and title of person from whom admission forms may be obtained

The Institute of Graduate Studies and Research, UNARC, P.O. Box 832, University of Alexandria, Egypt
- 14. MANSOURA UNIVERSITY

Mansoura, Egypt
Tel: 050344852
- a. Department responsible for environmental courses/programmes

Faculty of Education

- b. Environmental programmes/courses offered
The faculty offers general courses in environmental awareness for decision-makers and policy-makers. In addition, it offers a course in environmental management
- c. Course objective
To produce professionals at all levels who are equipped with knowledge and skills to deal effectively with environmental problems and issues at both local and national level.
- e. Academic requirements
B.Sc. degree
- f. Other entry requirements: None
- g. Number of students admitted at a time: 150
- h. Academic year: October to June
- i. Duration of training: Varies with course
- j. Type of award/s at completion
B.Sc., Masters and Ph.D
- k. Cost of course (US\$): Free for Egyptians
- l. Sponsorship: Government, NGO and private
- m. Staffing: Very good
- n. Equipment and infrastructure: Very good
- o. On-going research and development/programme: Very good
- p. Availability of education and training facilities: Very good
- r. Willingness to join UNEP environmental training Network: Positive
- s. Name of person to whom enquiries may be addressed
Prof. Emile F. Shanoda
- t. Name and title of person from whom admission forms may be obtained
Prof. Emile F. Shanoda
15. INSTITUTE OF AFRICAN RESEARCH AND STUDIES
Cairo University, 12613 Giza, Cairo, Egypt
Tel: 734144/731913 Telex: 94372 UNAIUN
- a. Department responsible for environmental courses/programmes
Dept. of Natural Resources
- b. Environmental programmes/courses offered
Natural Resources Management

- c. Course objective
To equip students with professional skills to manage the environment in a sustainable way.
- d. Environmental profile of the course
The course in natural resources management concentrates on rangeland, livestock and dry farming. It also touches on the following topics: desertification control, environmental aspects of geology (mining), environmental impact assessment and management, marine environmental science, soil conservation and management, wildlife management and conservation.
- e. Academic entry requirement: B.Sc. degree with a good grade
- f. Other entry requirements: None
- g. Number of students admitted at a time: 25
- h. Academic year: October to May
- i. Duration of training: Varies with programme
- j. Type of award/s at completion
Diploma, Masters, Ph.D.
- k. Cost of course (US\$): 200 p.a. for Egyptians
- l. Sponsorship: Government and/or private
- m. Staffing: Adequate
- n. Equipment and infrastructure: Not adequate
- o. On-going research and development/programme: Not adequate
- p. Availability of education and training facilities: Not adequate
- q. Proposed future courses: None
- r. Name and title of person to whom enquiries may be addressed
Prof. M.M. El-Gohary
- s. Name and title of person from whom admission forms may be obtained
Dean of the Faculty of Natural Resources

FACULTY OF SCIENCE, ASWAN BRANCH OF ASSIUT UNIVERSITY, ASWAN, EGYPT
Tel: 097-480-450

- a. Department responsible for environmental courses/programmes
Faculty of Science.
- b. Environmental programmes/courses offered
Training Course on Environmental Management

- c. Course objective
To impart environmental awareness and skills in environment management issues.
- d. Environmental profile of the course
The programme offers courses in environment, courses with environmental components, and general courses in environmental awareness for decision-makers and policy-makers. Specific courses include: Chemical safety, desertification control, environmental aspects of geology (mining), environmental design, environmental impact assessment, environment management, industry and environment, natural resources, soil conservation, soil biology, water and water resources management, wildlife management and conservation, plant geography, hydrogeology, energy, nuclear safety, ecological statistics, landscape ecology.
- e. Academic entry requirement: B.Sc. BSc. Agric., B.Sc. Educ.
- f. Other entry requirements: A good knowledge of English.
- g. Number of students admitted at a time: 5-50
- h. Academic year: October to May
- i. Duration of training: not given.
- j. Type of award/s at completion
Certificate, Diploma, MSc and PhD.
- k. Cost of course (US\$): 200 p.a.
- l. Sponsorship: Government, NGO and/or private
- m. Staffing: Adequate/very good.
- n. Equipment and infrastructure: Adequate
- o. On-going research and development/programme: Very good.
- p. Availability of education and training facilities: Not very good.
- q. Proposed future courses:
To establish practical site demonstrations, Irrigation and Drainage. Environmental Economics, Limnology and Oceanography and Architecture.
- r. Institutional participation in environmental awareness building among the public: Sometimes, not regular. Topics discussed include conservation areas in the Nile and desert.
- s. Name and title of person to whom enquiries may be addressed
Prof. Ahmed Esmat Belal
- t. Name and title of person from whom admission forms may be obtained
The Registrar or the Dean.

E T H I O P I A

16. ADDIS ABABA UNIVERSITY
Box 1176, Addis Ababa
ETHIOPIA
Telephone PBX 110844. Telex 21205
- a. Department responsible for the course/programme
Plant Science and Technology, Awassa Junior Agricultural College,
Box 5, Awassa, Sidamo, Ethiopia.
- b. Programmes/courses offered: Soil and Water Management
- c. Course objectives
To train junior agricultural personnel in environmentally sound methods
of soil and water management.
- d. Environmental profile of the course
The College offers training course with environmental components covering
the following issues: forestry and tree crops production, natural
resources, soil and water resources management, wildlife conservation and
management, principles and practices of silviculture. Courses are
prepared and given to agricultural students, and the question of
environment is covered as a secondary aspect of the course.
- e. Academic requirements
Completion of high school and a pass in the 12th grade leaving
examination similar to that of the GCE.
- f. Other requirements: None
- g. Number of students admitted at a time: Varies but on the average 70
- h. Academic year: October to February
- i. Type of award at completion: Diploma
- j. Sponsorship: Government/private
- k. Institutional participation in environmental awareness building among the
public
Active. Issues discussed were related to drought and crop failure. Also
some aspects dealing with the expansion of the Sahel.
- l. Willingness to join UNEP Environmental Training Network: Positive
- m. Name of official to whom enquiries may be addressed
Dr. Geremew Haile, Awassa Junior Agricultural College, Box 5, Awassa,
Sidamo, Ethiopia.
- n. Name and title of person from whom admission forms may be obtained
Registrar, Addis Ababa University

G H A N A

17. UNIVERSITY OF CAPE COAST

University Post Office, Cape Coast

GHANA

Tel: 2440-9 & 2480-9

a. I. FACULTY OF SCIENCE, PHYSICS DEPARTMENT

b. Programme/courses offered

1. Non-conventional Energy Sources
2. Environmental Physics

c. Course objectives

To introduce students to environmental aspects of physics

d. Environmental profile of the course

The department offers courses with environmental components. Specific courses include energy technology and meteorology.

e. Academic requirements

Both courses are senior undergraduate courses

f. Number of students admitted at a time: 15

g. Academic year: March to June

h. Duration of training: One academic term

i. Type of award at completion: B.Sc. degree

j. Sponsorship: Government/private

Admission to course by direct application from student

k. Staffing: Adequate

l. Equipment and infrastructure: Not adequate

m. Ongoing research and development programme: Adequate

n. Availability of education and training facilities: Not adequate

o. Proposed future courses

There are plans to broaden the scope of physics of the environment to include urban climatology with particular reference to atmospheric pollution.

p. Willingness to join UNEP Environmental Training Network: Positive

q. Name of official to whom enquiries may be addressed

Prof. A.H. Deheer-Amisshah, Dept. of Physics

r. Name and title of person from whom admission forms may be obtained

The Registrar

a. II. FACULTY OF SOCIAL SCIENCES, DEPARTMENT OF GEOGRAPHY

b. Programme/courses offered:

1. Physical Geography
2. Resource Management
3. Population and Environment
4. Urban Environmental Problems

c. Course objectives

To gain deeper insight into and understanding of the issues involved in Man-Environment/Resources Equation.

d. Environmental profile of the course

The department offers courses with environmental components and courses in environment. Specifics of the latter are: control of environmental hazards, environmental aspects of geology, environmental impact management, environmental impact assessment, forestry resources and management, industry and environment, natural resources, soil conservation and management, water and water resources management.

e. Academic requirements

According to University, Faculty & Departmental requirements

f. Number of students admitted at a time: 50

g. Academic year: October to July

h. Duration of training: 4 years for B.Sc. degree

i. Type of award at completion: B.Sc. and M.Sc. degrees

j. Sponsorship: Government/Private
Admission by direct application from student

k. Staffing: Not adequate

l. Equipment and infrastructure: Not adequate

m. Ongoing research and development programme: Not adequate

n. Availability of education and training facilities: Not adequate

o. Proposed future courses: None

p. Willingness to join UNEP environmental training network: Positive

q. Name of official to whom enquiries may be addressed
Head, Dept. of Geography

r. Name and title of person from whom admission forms may be obtained
The Registrar

18. REGIONAL INSTITUTE FOR POPULATION STUDIES
University of Ghana
P.O. Box 96, LEGON, GHANA
Telephone: 774070, 775381, Ext. 8810. Telex: 2164 RIPS GH
- a. Department responsible for the course
Regional Institute for Population Studies.
- b. Programmes/courses offered
- (i) Population change, natural resources environment and development.
- (ii) Ecological aspects and development, population distribution in sub-Saharan Africa.
- c. Course objectives
To provide students with relevant tools to study, analyse and draw conclusions from demographic and development interrelationship for policy-makers and researchers.
- d. Programme/course outline
(Course 203): Ecology and space science, man, area and environment; adjustment to the environment, population, and the eco-system and the changing balance between population, resources, organization and technology. Factors conditioning the demand and supply of resources. Environmental degradation. Desertification, deforestation and afforestation. The drought situation in Africa. Consequences of progress in agricultural technology and in genetic engineering and the anticipated changes in the environment and their societies. Environmental pollution and occupational safety.
(Course 305B): Development of the humid tropics, geographical limits. Humid tropical eco-systems, ecological and management conditions for forested lands. Tropical and sub-tropical dry zones, geographical distribution and characteristics. Coastal zone environment and management. Matching development policy with resource systems.
- e. Academic entrance requirements
B.A. or B.Sc. degree in social sciences, mathematics, statistics and geography.
- f. Other requirements
Good student with satisfactory testimonials from teachers and/or supervisors.
- g. Number of students admitted at a time: 35
- h. Academic year: October to September
- i. Duration of training: 12 months for M.A. programme
- j. Type of award at completion of course:
It is part of M.A. (Population Studies) degree
- k. Cost of the course: US\$ 5,000
- l. Sponsorship: By government/NGO/donor.

- m. Staffing: Adequate
- n. Equipment & infrastructure: Adequate
- o. On-going research and development programme: Adequate
- p. Availability of education and training facilities: Very good
- q. Proposed future courses
Impact of population and distribution on the environment with particular reference to housing, human waste and refuse disposal.
- r. Name of person to whom enquiries may be addressed: Dr. P.O. Ohadike.
- s. Name and title of official from whom admission forms may be obtained:
Dr. P.O. Ohadike, Acting Director

19. UNIVERSITY OF GHANA
Box 55, Legon, Accra
GHANA
Tel: 75381

a.I. DEPARTMENT OF BOTANY (WITH ZOOLOGY)

- b. Programmes/courses offered: Environmental Zones of West Africa
- c. Course objectives
To impart ecological principles with some special reference to human ecology
- d. Course outline
This is a course which lasts for one academic term. It deals with desertification control, environmental impact assessment, environmental management, forestry resource and management, natural resources, water and water resources management, and wildlife management and conservation.
- e. Academic requirements: First Year General Biology
- f. Other requirements: Introductory Mathematics (first year) useful
- g. Number of students admitted at a time: 10-20 (no limit)
- h. Academic year
The course normally starts in January and ends in March each year. It is a second year degree course.
- i. Duration of training: 3 months
- j. Type of award at completion: It is part of B.Sc. degree
- k. Sponsorship: Government or private
- l. Staffing: Adequate
- m. Equipment and infrastructure: Adequate

- n. Ongoing research and development programme: Adequate
- o. Availability of education and training facilities: Adequate
- p. Institutional participation in environmental awareness building among the public
Active. Issues discussed included water resources development and desertification.
- q. Willingness to join UNEP Environmental Training Network: Positive
- r. Name of official to whom enquiries may be addressed
Head, Department of Botany
- s. Name and title of person from whom admission forms may be obtained
Registrar

a. II. DEPARTMENT OF GEOGRAPHY AND RESOURCE DEVELOPMENT STUDIES

- b. Programmes/courses offered
Several courses with environmental components are offered:
 1. Environmental remote sensing and other research techniques
 2. Physical environmental systems
 3. Population geography
 4. Tropical biogeography and agro-forestry
 5. Agro-climatology
 6. Resources and development
- c. Course objectives
To impart awareness of the opportunities and problems of resources and to help students acquire research and analytical capabilities.
- d. Environmental profile of the courses
 1. Environmental remote sensing is taught as a tool for resources and environmental survey analysis, assessment and monitoring for urban studies and rural land use. Research techniques include research design and use of statistics.
 2. Physical environmental systems seeks to emphasize the inter-related nature of physical environmental processes as they relate to the atmosphere, surface forms, surface cover and subsurface composition which are important for analysis and solution of present day land use problems.
 3. Population geography examines the concept of organisation of space from point of view of population, highlighting the role of women in development, population and development and population programmes and policies.

4. Tropical biogeography and agroforestry focuses on biological environmental resources of the region in relation to development; their use and conservation with particular reference to agroforestry principles and practice.
 5. Agro-climatology deals with application of meteorology to agriculture and focuses on the relationship between weather variables and such factors as soil, plants and animals.
 6. Resources and development focuses on environmental resources and the need to integrate these and socio-economic resources is stressed, together with resources in national development and resources conservation.
- d. Academic requirements: Three passes at GCE "A" Level including geography
 - e. Number of students admitted at a time
Part 1: 70 - 90
Part 2: 50 - 60
 - f. Academic year: October to July
 - g. Duration of training: 3 years
 - h. Type of award at completion: BA degree in Geography
 - i. Sponsorship: Government/private
 - j. Staffing: Adequate
 - k. Equipment and infrastructure: Not adequate
 - l. Ongoing research and development programme: Not adequate
 - m. Institutional participation in environmental awareness building among the public
Active. Issues discussed include resource management and development
 - n. Willingness to join UNEP Environmental Training Network: Positive
 - o. Name of official to whom enquiries may be addressed:
Prof. George Benneh
 - p. Name and title of person from whom admission forms may be obtained
Registrar

20. UNIVERSITY OF SCIENCE AND TECHNOLOGY

Kumasi

GHANA

Telephone 5350, 5351-9. Telex 3036 BTH GH

University Academic Year: October to June

University Fees (per annum)

1.	<u>Undergraduate</u>	<u>Tuition</u>
	- Humanities	US\$ 1500
	- Natural, Physical Sciences (including Mining)	US\$ 1700
	- Medical	US\$ 2400
	Accommodation, Registration, Medical, Exams, Meals	US\$ 2500
2.	<u>Post-graduate</u>	
	- Humanities	US\$ 2000
	- Natural/Physical Sciences including Mining	US\$ 2200
	Medical	US\$ 2900

Departments/Institutes responsible for the Courses/Programmes

The various Institutes/Departments of the University currently offer courses in environment, courses with environmental components, as well as general courses in environmental awareness for decision-makers and policy-makers. Particulars of courses offered by each institute/department follow.

a. 1. DEPARTMENT OF PLANNING

b. Programmes/courses offered

B.Sc. Development Planning, M.Sc. Development Planning and Management

c. Course objectives

To equip students to initiate policies for the development of the environmental for social and economic benefits of society.

d. Environmental profile of the course

The course offered covers the following environmental aspects: environmental design, environmental impact assessment, environmental management, natural resources.

e. Academic requirements

3 "A" levels for B.Sc. degree; Bachelors Degree in Second Upper and above for M.Sc.

f. Other requirements

Proficiency in written and oral English

- g. Number of students admitted at a time: 40
- h. Duration of training
3 years for B.Sc., up to 2 years for M.Sc.
- i. Type of award at completion: B.Sc. and M.Sc.
- j. Sponsorship: Government/private
- k. Staffing: Very good
- l. Equipment and Infrastructure: Adequate
- m. Ongoing research and development programme: Adequate
- n. Availability of education and training facilities: Not adequate
- o. Proposed future courses
The proposed course provides an in-depth reference to settlements in both rural and urban environments as economic, social and political systems. It also equips the student to determine factors affecting morphology and structure of settlements. It provides an understanding of the parameters articulating detail planning and the preparation of the planning brief.

Components of the course include: role of rural and urban settlements; settlement growth characteristics, settlement growth and economic and social change, landscape, townscape and environmental management, settlement as economic and social systems, social mobility and settlement size, political factors and urbanization. New Town concepts and the future built environment development promotion, financing of development, settlement management, rates and rating.
- p. Institutional participation in environmental awareness building among the public
Active. Topics discussed include the issue of viewing environmental problems as an integral part of the overall development planning process.
- q. Willingness to join UNEP Environmental Training Network: Positive
- r. Name of official to whom enquiries may be addressed
Prof. Martha Tamakloe (Mrs.), Dean of Faculty
Prof. P. Austin Tetteh, Head of Planning
- s. Name and title of person from whom admission forms may be obtained
The Registrar, University of Science and Technology
- a. II DEPARTMENT OF ARCHITECTURE
- b. Programmes/courses offered: B.Sc Design plus Diploma
- c. Course objectives
To offer a basis for a broad architectural education in the total environment.

- d. Environmental profile of the course
The department offers courses with environmental components, courses in environment as well as general courses in environmental awareness for decision-makers and policy-makers. Individual courses cover the following aspects of environment: environmental design, environmental impact assessment, environmental management. The department also organises socio-economic surveys, both rural and urban, as major components of the environmental training.
 - e. Academic requirements
General Certificate of Education "A" level or equivalent
 - f. Number of students admitted at a time: 20 on average
 - g. Academic year: October to June
 - h. Duration of training
3 years for Degree; 2 years for Diploma
 - i. Type of award at completion
B.Sc. Design; Diploma in Design
 - j. Sponsorship: Government or private
 - k. Staffing: Very good
 - l. Equipment and infrastructure: Not adequate
 - m. Ongoing research and development programme: Not adequate
 - n. Availability of education and training facilities: Not adequate
 - o. Proposed future courses
 - 1. One-year M.Arch. Course for candidates with the post-graduate diploma in Architecture or its recognised equivalent professional course.
 - 2. A two-year M.Phil non-professional course for students with architectural and other backgrounds.
 - p. Institutional participation in environmental awareness building among the public
Active. Issues discussed include: rural development, housing, urban problems and ecological issues.
 - q. Willingness to join UNEP Environmental Training Network: Yes
 - r. Name of official to whom Enquiries may be addressed
Prof. J. Owusu-Addo, Head, Dept. of Architecture
 - s. Name and title of person from whom admission forms may be obtained
The Registrar, UST, Kumasi.
- a. III. DEPARTMENT OF GEOLOGICAL ENGINEERING
- b. Programmes/courses offered: Engineering Geology

- c. Course objectives
To strengthen and expand training facilities for the mineral sector; prospect and evaluate new mineral deposits; increase the production of existing mines.
- d. Environmental profile of the course
The course covers: environmental aspects of geology (mining), water and water resources management, and basic mineral science.
- e. Academic requirements
Passes in the West African School Certificate of Education (Advanced Level) in Mathematics, Physics and Chemistry. A credit at "O" level in English is essential.
- f. Number of students admitted at a time: 20
- g. Academic year: October to June
- h. Duration of training: 4 years
- i. Type of award at completion: B.Sc.
- j. Sponsorship: Private or Government
- k. Staffing: Not adequate
- l. Equipment and infrastructure: Not adequate
- m. Ongoing research and development programme: Not adequate
- n. Availability of education and training facilities: Not adequate
- o. Willingness to join UNEP Environmental Training Network: Positive
- p. Name of official to whom enquiries may be addressed
Dr. P.M. Cofie, Head of Department
- q. Name and title of person from whom admission forms may be obtained
The Registrar

a. IV DEPARTMENT OF AGRICULTURE ENGINEERING

- b. Programmes/courses offered: Soil and Water Engineering
- c. Course objectives
To enable students acquire knowledge and skills in soil and water management, environmental control, farm power and processing of agricultural products.
- d. Environmental profile of the course
The course covers: control of environmental hazards, energy, technology, environmental management, soil conservation and management, water and water resources management, soil and water engineering, environmental control and farm structures. The courses consist of environmental components which are relevant to agricultural engineering in general. Controlling the environment in farm houses, disposal of farm wastes, environmentally sound management of water and soil resources are some of the major topics related to the environment.

- e. Academic requirements
"A" Level passes in Basic Sciences and English
- f. Number of students admitted at a time: 25
- g. Academic year: October to June
- h. Duration of training: 3 years
- i. Type of award at completion: B.Sc. (Agricultural Engineering)
- j. Sponsorship: Government or private
- k. Staffing: Adequate
- l. Equipment and infrastructure: Not adequate
- m. Ongoing research and development programme: Not adequate
- n. Availability of education and training facilities: Not adequate
- o. Proposed future courses
Agrometeorology/Climatology
Irrigation Water Management
- p. Institutional participation in environmental awareness building among the public
Have written articles in the press covering: water resources management, irrigation water management, irrigation and drainage irrigation and health.
- q. Willingness to join UNEP Environmental Training Network: Positive
- r. Name of official from whom enquiries may be addressed
Dr. A. Twum, Head of Department
- s. Name and title of person from whom admission forms may be obtained
The Registrar, UST, Kumasi
- a. V DEPARTMENT OF CHEMICAL ENGINEERING
- b. Programme/courses offered
 1. Industrial Safety
 2. Industrial Pollution Control
- c. Courses objectives
To impart awareness of industrial hazards and to equip with knowledge and skills of control measures and devices.
- d. Environmental profile of the course
The two courses: industrial safety engineering and pollution control systems are offered to students who take a 4-year B.Sc. degree course in Chemical Engineering.
- e. Academic requirements
GCE "A" levels in Mathematics, Physics and Chemistry
- f. Number of students admitted at a time: 15-25

- g. Academic year: October to June
- h. Duration of training: Part of a 4-year degree course
- i. Type of award at completion: B.Sc (Chemical Engineering)
- j. Sponsorship: Government/private
- k. Staffing: Not adequate
- l. Equipment and infrastructure: Not adequate
- m. Ongoing research and development programme: Not adequate
- n. Availability of education and training facilities: Not adequate
- o. Willingness to join UNEP Environmental Training Network: Positive
- p. Name of official to whom enquiries may be addressed
Mr. Y.N. Acheampong, Head of Department
- q. Name and title of person from whom admission forms may be obtained
The Registrar, UST, Kumasi

a. VI DEPARTMENT OF GENERAL AND AFRICAN STUDIES - GEOGRAPHY SECTION

- b. Programme/courses offered
Climatology, Geomorphology, Hydrology and Biogeography
- c. Course objectives
To increase the awareness of students of the environment and its impact on development.
- d. Environmental profile of the course
The study of the environment forms part of the general course in geography in the B.A. Social Sciences Degree Programme. The environmental related courses are:
First year: Introduction to geomorphology and climatology
Second year: Geomorphology and hydrology; climatology and biogeography.
The approach used is the systems approach; so that even in the first year the relationships between land-forms and climate and other environmental phenomena are emphasised. The third year makes a close study of the West African environment, the different fauna and flora and soils. In all cases the role of man as a change agent is stressed. Management efforts by government and other agencies are highlighted. There is an elective in the third year entitled Rural Resources Development which focuses on climate, soils, vegetation, etc., their uses and management issues.
- e. Academic requirements
University entrance requirements (3 "A" level passes) including Advanced Level Pass in Geography and "O" Level in Mathematics.
- f. Number of students admitted at a time: 60 in first year and 35 in third
- g. Academic year: October to June
- h. Duration of training: 3 years

- i. Type of award at completion: B.Sc.
- j. Sponsorship: Government/Private
- k. Staffing: Not adequate
- l. Equipment and infrastructure: Not adequate
- m. Ongoing research and development programme: Not adequate
- n. Availability of education and training facilities: Not adequate
- o. Institutional participation in environmental awareness building among the public
Active. Issues discussed include (i) implications of the environment in development (ii) resource generation, utilization, depletion and conservation.
- p. Additional information
For more involvement in management issues, the department intends liaising with the Ghana Fire Service which is actively involved in fighting bush fires which are increasingly becoming a threat to Ghanaian vegetation and other biological resources.
- q. Willingness to join UNEP Environmental Training Network: Positive
- r. Name of official to whom enquiries may be addressed
Mr. W.K. Woyome, Head of Department
- s. Name and title of person from whom admission forms may be obtained
The Registrar, UST, Kumasi

a. VII DEPARTMENT OF CIVIL ENGINEERING

- b. Programme/courses offered
 - 1. Diploma in Environmental Health Technology
 - 2. B.Sc. Civil Engineering
 - 3. M.Sc. Sanitary Engineering
- c. Course Objectives
To train candidates in matters pertinent to environmental health and environmental engineering to enable them to solve the various environmental problems besetting their communities.
- d. Environmental profile of the course
The various courses offered by the department include environmental impact assessment, environmental management and environmental technology/engineering.
- e. Academic requirements
 - 1. For diploma course - Royal Certificate of Health (or equivalent)
 - 2. For B.Sc. - three "A" level passes
 - 3. For M.Sc. - B.Sc. degree in Engineering
- f. Other requirements: None

- g. Number of students admitted at a time
Diploma - 10
B.Sc. - 40
M.Sc. - 10
- h. Academic year: October to June
- i. Duration of training: Varies with course
- j. Type of award at completion
Diploma in Environmental Health Technology;
B.Sc. Civil Engineering
M.Sc. Sanitary Engineering
- k. Sponsorship: Government or private
- l. Staffing: Very good
- m. Equipment and infrastructure: Adequate
- n. Ongoing research and development programme: Very good
- o. Availability of education and training facilities: Adequate
- p. Proposed future courses
Broad-base M.Sc. programme in Civil Engineering with Environmental Components
- q. Institutional participation in environmental awareness building among the public
Active. Issues discussed include: environmental pollution, industrial wastes and recycling, rural water supply and hand-pumps, rural sanitation.
- r. Willingness to join UNEP Environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed
Prof. N.K. Kumapley, Head, Dept of Civil Engineering
- t. Name and title of person from whom admission forms may be obtained
The Registrar, UST, Kumasi

a. VIII DEPARTMENT OF BUILDING TECHNOLOGY

- b. Programme/courses offered: Building Services Engineering
- c. Course objectives
To enable candidates handle the builder's works associated with building service engineering and equipment
- d. Environmental profile of the course
The course is taught as part of B.Sc (Building Technology) degree programme. It is a 2-credit, 2-semester course at the second and third year levels of the B.Sc. programme. It covers chemical safety, and control of environment.
- e. Academic requirements
Student must be on the B.Sc. (Building Technology) Programme

- f. Number of students admitted at a time: 20
- g. Academic year: October to February; March to June
- h. Duration of training
One semester per course .
- i. Type of award at completion
Part of the B.Sc. (Building Technology) Programme
- j. Sponsorship: Government/private
- k. Staffing: Adequate
- l. Equipment and infrastructure: Not adequate
- m. Ongoing research and development programme: Not adequate
- n. Willingness to join UNEP Environmental Training Network: Positive
- o. Name of official to whom enquiries may be addressed
Head, Department of Building Technology
- p. Name and title of person from whom admission forms may be obtained
Registrar (Admissions)

a. IX DEPARTMENT OF BIOLOGICAL SCIENCES

- b. Programme/courses offered: Ecology
- c. Environmental profile of the course
This is part of the B.Sc. degree programme. It focuses on wildlife management conservation based on environmentally-sustainable ecological principles.
- d. Academic requirements: "A" level passes in Biology, Chemistry and Physics
- e. Number of students admitted at a time: 25
- f. Academic year: October to June
- g. Duration of training: Part of the B.Sc. programme
- h. Type of award at completion: B.Sc. degree
- i. Sponsorship: Government/private
- j. Staffing: Not adequate
- k. Equipment and infrastructure: Adequate
- l. Ongoing research and development programme: Adequate
- m. Availability of education and training facilities: Adequate
- n. Willingness to join UNEP Environmental Training Network: Positive
- o. Name of official to whom enquiries may be addressed
The Registrar, UST Kumasi

- a. X DEPARTMENT OF CHEMISTRY
- b. Environmental programmes/courses offered
Environmental Chemistry
- c. Course objective
To preserve natural background levels of chemicals and control of quantities of new chemicals introduced into the environment
- d. Environmental profile of the course/s
The department offers courses in environment and courses with environmental components. The course in environmental chemistry includes: chemical safety, control of environmental hazards, industry and environment, water and water resources management, goitrogenic parameters
- e. Academic requirements
For undergraduate course: 'A' level chemistry, maths, physics
For postgraduate course: good degree in chemistry, biochemistry, chemical engineering
- f. Other entry requirements: None
- g. Number of students admitted at a time: 30 undergraduate; 10 postgraduate
- h. Academic year: October to June
- i. Duration of training: 3 years for B.Sc; 2 years for M.Phil.
- j. Type of award/s at completion: B.Sc. and M.Phil.
- k. Cost of course (US\$): B.Sc.- 1700; M.Phil.- 2200
- l. Sponsorship: Application direct from student
- m. Staffing: Adequate
- n. Equipment and infrastructure: Adequate
- o. On-going research and development/programme: Adequate
- p. Availability of education and training facilities: Very good
- r. Institutional participation in environmental awareness building among public
Active. Issues discussed include environmental impact assessment
- s. Willingness to join UNEP environmental Training Network: Positive
- t. Name of official to whom enquiries may be addressed
Prof. E.H. Amonoo-Neizer
- u. Name and title of person from whom admission forms may be obtained
Registrar

21. INSTITUTE OF RENEWABLE NATURAL RESOURCES

University of Science and Technology

PMB Kumasi

GHANA

Telephone 5351

- a. Department responsible for the Course/Programme
Institute of Renewable Natural Resources
- b. Programmes/courses offered: Natural Resources Management
- c. Course objectives
To train students to manage renewable natural resources
- d. Course outline
The Institute offers courses with environmental components which include: forestry, forestry resources management, wildlife management, range management, freshwater fisheries and watershed management. At both the B.Sc. and Diploma levels, students take courses in all areas of renewable natural resources but may specialise in one of the following areas:
1. Forestry; (2) Wood Science; (3) Wildlife and Range Management, and (4) Freshwater Fisheries and Watershed.
- e. Academic requirements
Higher School Certificate ("A" Level) with passes in three of the following: biology, chemistry, physics, mathematics and agricultural science
- f. Other requirements
Foreign students who qualify for entry into their national universities will be considered for admission.
- g. Number of students admitted at a time: 25
- h. Academic year: October to July
- i. Duration of training: 3 years
- j. Type of award at completion: B.Sc. and Diploma
- k. Cost of the course: US\$ 5000 covering fees, boarding and lodging
- l. Sponsorship: Government/private
- m. Staffing: Adequate
- n. Equipment and infrastructure: Not adequate
- o. Ongoing research and development programme: Adequate
- p. Availability of education and training facilities: Adequate
- q. Proposed future courses
Introduction of a general course in environmental protection
- r. Additional information
Introduction of a general course in environmental protection is being mooted to modify existing courses.

- s. Willingness to join UNEP Environmental Training Network: Positive
- t. Name of official to whom enquiries may be addressed
Prof. E.O. Asare, Director
- u. Name and title of person from whom admission forms may be obtained
Mr. L.I. Andoh, Registrar

K E N Y A

- 22. KENYATTA UNIVERSITY
P.O. Box 43844, Nairobi
KENYA
Telephone: 810901
- a. Department responsible for the programme/course:
Centre for Environmental Education
- b. Programmes/courses offered: M.Ed. in Environmental Education
- c. Course objectives
To provide a multidisciplinary training programme in environmental education.
- d. Environmental profile of the course
Besides offering courses with environmental components and general courses in environmental awareness, the Centre offers specific courses in chemical safety, energy technology, environmental impact assessment, environmental management, environmental technology/engineering, water and water resources management, issues and problems in environmental education impact of environmental factors on socio-cultural development, educational planning and curriculum development in environmental education, human settlements. The first year is devoted to course work and the second year to research. At present, all candidates for B.Ed Degree programme take a compulsory introductory course in environmental education.
- e. Academic requirements
Undergraduate degree (upper second class and above)
- f. Other requirements
Teaching experience
- g. Number of students admitted at a time: 2
- h. Academic year: September to June
- i. Duration of training: 2 years
- j. Type of award at Completion: Master of Education (M.Ed)
- k. Cost of the course: US\$ 3200
- l. Sponsorship: Government
- m. Staffing: Adequate

- n. Equipment and infrastructure: Not adequate
- o. On-going research and development programme: Adequate
- p. Availability of education and training facilities: Not adequate
- q. Proposed future courses
There are plans to offer B.Ed. degree in Environmental Education.
- r. Willingness to join UNEP Environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed
Dr. M. Korir-Koech, Director, Centre for Environmental Education.
- t. Name and title of person from whom admission forms may be obtained:
Dr. F.N. Owako, Registrar

23. MOI UNIVERSITY

P.O. Box 3900
ELDORET, Kenya
Telephone 0321-31660
Telex 35047 Moi Varsity

- a. Department responsible for environmental courses/programmes

Institute of Environmental studies.
- b. Environmental Programmes/courses offered

Diploma in Environmental Studies
M.Sc. in environmental Studies
Ph.D in Environmental Studies
- c. Course objectives

To train professionals in interdisciplinary methods of solving environmental problems.
- d. Environmental profile of the course

The school plans to offer courses in environment, courses with environmental components and general courses in environmental awareness to decision-makers and policy-makers specific courses to be offered include: chemical safety control of environmental hazards, desertification control, energy technology, environmental aspects of geology (mining) environmental design, environmental impact assessment, environmental management, forestry and forestry resources management industry and environment, marine environmental science, natural resources, soil conservation and water resources management, wildlife management and conservation.
- e. Academic entry requirements

B.Sc. or B.A. degree first class or upper second class honours.
- f. Other entry requirements: None
- g. Number of students admitted at a time: 15

- h. Academic year (beginning and end)
September/October to May/June
- i. Duration of training
9 months: Diploma
20 months: masters
- j. Type of award/s at completion (e.g. diploma, degree, certificate)
Post Graduate Diploma in Environmental Studies (PGDES)
M.Phil in Environmental Studies
D.Phil in Environmental Studies
- k. Cost of Course (US\$):
Not yet determined
- l. Sponsorship: Govt/NGO.private
- m. Staffing: Adequate
- n. Equipment and infrastructure: Not adequate
- o. On-going research and development programme: Adequate
- p. Availability of education and training facilities: Adequate.
- q. Proposed future courses:
It is proposed to offer undergraduate courses in environment once postgraduate courses have taken off.
- r. Institutional participation in environmental awareness building among the public:
Active topics discussed include: pollution, desertification, eutrophication, aquatic weed infestation.
- s. Willingness to join UNEP environmental Training Network: Positive
- t. Name and title of official to whom enquiries may be addressed:
Professor Steven G. Njuguna, Co-ordinator of Programme, and/or Professor C.O. Okidi, Dean, School of Environmental Studies.
- u. Name and title of person from whom admission forms may be obtained:
Dean of Graduate Studies
24. AFRICAN REGIONAL ORGANISATION FOR STANDARDIZATION (ARSO)
Box 57363, Nairobi
KENYA
Tel: 24561/330882/330895. Telex 22097 ARSO
- a. Programmes/courses offered
ARSO offers workshop courses with environmental components, specifically in Environmental Standards.

- b. Course objectives
To develop skills in formulation and application of standards on environment and pollution.
- c. Course outline
- d. Academic requirements
Standards Engineers (B.Sc.)
- e. Number of students admitted at a time: 30
- f. Academic year: Periodical
- g. Duration of training: 4 weeks
- h. Type of award at completion: Certificate
- i. Cost of the course: US\$ 2000
- j. Sponsorship: Government/private
- k. Staffing: Adequate
- l. On-going research and development programme: Not adequate
- m. Willingness to join UNEP Environmental Training Network: Positive
- n. Name of Official to whom enquiries may be addressed: The Director
- o. Name & title of person from whom admission forms may be obtained
Dr. G.Y. Ahlijah, Technical Officer

25. THE INTERNATIONAL CENTRE OF INSECT PHYSIOLOGY AND ECOLOGY (ICIPE)
Box 30772, Nairobi
KENYA
Telephone 802503 Telex 22053

a.I. OUTREACH AND TRAINING UNIT

b. Programmes/courses offered

1. Safe Handling of Radioisotopes
2. Components Essential for Ecologically Sound Pest and Vector Management Systems
3. Self-reliance in Ecological Pest Management in the Tropics

c. Course objectives

1. To provide practical foundation and orientation as well as up-to-date understanding of pest and vector management in context of environmental factors.
2. To provide opportunity for exchange of experiences among participants.

d. Course outline

ICIPE offers a training course in control of environmental hazards by way of a short-term specialised course in the safe handling of radioisotopes. Two international group training courses are offered in the area of environmental management. These are International Group

Training Course on Components Essential for Ecologically Sound Pest and Vector Management Systems; and Training for Self-reliance in Ecological Pest Management in the Tropics. This training is delivered in English and French.

- e. Academic requirements
Graduates (B.Sc or its equivalent and above)
- f. Other requirements
 - 1. Experience on the job desirable but not essential
 - 2. Profile of applicant
 - 3. Recommendation from employer/institution.
- g. Number of students admitted at a time: 30
- h. Academic year: July to August
- i. Type of award at completion: Certificate
- j. Cost of the course: US\$ 1000-1500
- k. Sponsorship: Government/private firm
- l. Staffing: Adequate
- m. Equipment and Infrastructure: Adequate
- n. Ongoing research and development programme: Very good
- o. Availability of education and training facilities: Very good
- p. Institutional participation in environmental awareness building among the public
Relatively active. Topic discussed: Ecologically and environmentally sound pest management methods.
- q. Additional information
A similar course is offered in French for Francophone countries in Yaounde, Cameroon.
- r. Willingness to join UNEP Environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed
Head, Outreach and Training Unit
- t. Name and title of person from whom admission forms may be obtained
Dr. Z.M. Nyiira, Head, Outreach and Training Unit
- a. II. AFRICAN REGIONAL POSTGRADUATE PROGRAMME IN INSECT SCIENCE (ARPPIS)
 - b. Programmes/Courses offered
The course focuses on ecologically acceptable insect pest management and leads to a Ph.D in Insect Science.
 - c. Course Objectives
To train graduates in ecologically acceptable insect pest management methods and skills.

- d. Academic requirements
A good first degree and successfully examined masters degree or equivalent, in biology, biochemistry, chemistry, statistics, veterinary science, crop protection.
- e. Other requirements
Student must be a national of an OAU state, not more than 35 years old.
- f. Number of students admitted: 10
- g. Academic year: March to February
- h. Duration of training: 3 years
- i. Type of award at completion:
Ph.D. Degree in Insect Science.
- j. Cost of the course:
US\$15,000 per year (Scholarships available)
- k. Sponsorship:
Admission to course normally by direct application from student, but must be endorsed by applicant's Head of Institution, Dept. etc. Sponsorship by Govt. and NGO accepted.
- l. Staffing: Very good
- m. Equipment and infrastructure: Very good
- n. On-going research and development programme: Very good
- o. Availability of education and training facilities: Very good
- p. Institutional participation in environmental awareness building among the public:
Active. Have discussed ecological and sociological aspects of insect pest management.
- q. Proposed new courses:
There are plans to launch M.Sc. programme in insect science
- r. Additional information:
 - 1. There are 6 months of compulsory course work
 - 2. 30 months of research culminating in a Ph.D. thesis
 - 3. Each student is registered at an ARPPIS participating university, but spends whole three years at ICIPE.
- s. Willingness to join UNEP Environmental Training Network:
Positive
- t. Name of official to whom enquiries may be addressed:
ARPPIS Academic Coordinator
- u. Name and title of person from whom application forms may be obtained:
Dr. M.E. Smalley, ARPPIS Academic Coordinator.

26. LAKE BASIN DEVELOPMENT AUTHORITY (LABDA)

Box 1516, Kisumu

KENYA

Telephone 40230. Telex 31011 LABDA

a. Activities

The Lake Basin Development Authority is charged with environmentally-sound and sustainable development of the Kenya side of the Lake Victoria Basin. Environmental impact assessment (EIA) is done for all development projects undertaken by LABDA and which may affect the environment. Recommendations from EIA are implemented. LABDA has Environmental Management and Public Health Division which deals with all aspects of the environment.

b. Willingness to join UNEP Environmental Training Network: Positive

c. Name of official to whom enquiries may be addressed: The Director

27. AFRICAN INSTITUTE FOR HIGHER TECHNICAL TRAINING AND RESEARCH

Box 53763, Nairobi

KENYA

Telephone 335661/20060/20061

a. Programmes offered

The Institute promotes courses with environmental components in the series of workshops which it runs in areas of water, energy, science and technology and environmental education.

b. Proposed future programmes

The Institute intends to intensify environmental training programmes in the areas of water, energy, science and technology, and is working towards the status of Africa's Centre of Excellence for Environmental Training.

c. Willingness to join UNEP Environmental Training Network: Positive

d. Name of official to whom enquiries may be addressed

Prof. Dr. M.F. Saad, Director General

28. UNIVERSITY OF NAIROBI

Box 30197, Nairobi

KENYA

Telephone 43181-9. Telex 22095 VARSITY KE

a. I DEPARTMENT OF METEOROLOGY

b. Programmes/courses offered

1. Atmospheric Science (at under-graduate level)
2. Atmospheric Pollution at M.Sc. level

c. Course objectives

To equip students with the knowledge and skills necessary to relate meteorology to environmental issues like water, food production and atmospheric pollution

- d. Environmental profile of the course
The department offers courses with environmental components as well as courses in environment. Courses offered include the following environmental components: Chemical safety, control of environmental hazards, desertification control, environmental design, environmental impact assessment, environmental management, forestry, forestry resources and management, industry and environment, marine environmental science, soil conservation and management, water and water resources management. Other courses e.g. agrometeorology and hydrometeorology also run concurrently with the atmospheric pollution course at the M.Sc. level.
- e. Academic requirements
"A" level or equivalent for B.Sc. level, and B.Sc in Meteorology or equivalent for M.Sc level.
- f. Other requirements
At under-graduate level, it is a service course open to all B.Sc students. Students for the M.Sc course take three other units during the first year. The second year is devoted to research where the student may investigate any problem on environmental pollution for his/her M.Sc. thesis.
- g. Number of students admitted at a time: Depends on number of applicants
- h. Academic year: September to June
- i. Duration of training
For undergraduate, the course lasts 12 months
For post-graduate, the course lasts 24 months
- j. Type of award at completion: B.Sc. and M.Sc (Meteorology)
- k. Sponsorship: Government or private
- l. Staffing: Not adequate
- m. Equipment and infrastructure: Not adequate
- n. Ongoing research and development programme: Adequate
- o. Availability of education and training facilities: Adequate
- p. Proposed future courses
Introduce a unit on environmental pollution at B.Sc. level with the introduction of the "8-4-4" system at the university. The course will put together all elements of atmospheric pollution courses which have been taught under other topics. It will be based on the current B.Sc. syllabus and the introduction on some of the topics already shown above.
- q. Institutional participation in environmental awareness building among the public
Active. Discussed problems associated with environmental pollution.
- r. Willingness to join UNEP Environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed
Dr. Laban Ogallo, Chairman, Dept. of Meteorology

- t. Name and title of person from whom admission forms may be obtained
Dr. Laban Ogallo, Chairman, Dept. of Meteorology
- a. II DEPARTMENT OF GEOLOGY
- b. Programmes/courses offered: Post-graduate Course in Geology
- c. Course objectives
To master and specialise in specified aspects of geology
- d. Environmental profile of the course
The department offers courses in environment, courses with environmental components, as well as general short courses in environmental awareness for decision-makers and policy-makers. Individual courses offered are: chemical safety, control of environmental hazards, mining geology, environmental impact assessment, environmental management, marine geology, economic mineral deposits, hydrogeology, isotope geology, petroleum geology, exploration geophysics and exploration geochemistry.
- e. Academic requirements: B.Sc Degree or equivalent
- f. Other requirements: Support or recommendations from relevant authorities
- g. Number of students admitted at a time: 4-6 students
- h. Academic year: October to February
- i. Duration of training: Two years
- j. Type of award at completion: M.Sc. in Geology
- k. Cost of the course: US\$ 13,160
- l. Sponsorship: Government or private
- m. Staffing: Adequate
- n. Equipment and infrastructure: Adequate
- o. Ongoing research and development programme: Adequate
- p. Availability of education and training facilities: Adequate
- q. Institutional participation in environmental awareness Building among the public
Active. Discussed environmental water pollution
- r. Willingness to join UNEP Environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed
Dr. I.O. Nyambok, Ag. Chairman, Dept. of Geology
- t. Name and title of person from whom admission forms may be obtained
Director, Board of Post-graduate Studies

L I B E R I A

28. LIBERIA COLLEGE

University of Liberia, P.O. Box 9020,
Monrovia
LIBERIA.

- a. Department responsible for the programme: Geography
- b. Courses offered: Geography and Regional Planning
- c. Course objectives
To prepare candidates for professions in environmental management
- d. Course outline
The course deals with environmental management, environmental geography and ecology, industrial geography and spatial organisation.
- e. Academic entrance requirements
For B.Sc. degree - A good high school certificate in economics and quantitative techniques. For Masters - a good Bachelor's degree.
- f. Other requirements
Respective prerequisites e.g. economics, quantitative techniques, etc.
- g. Number of students admitted at a time: 10-15
- h. Academic year: September to December
March to June
- i. Duration of training: Bachelors degree (4 years)
Masters degree (2 years)
- j. Type of award at completion: B.Sc. degree
M.Sc. degree
- k. Cost of the course: Bachelors degree: US\$ 900
Masters degree: US\$ 3000
- l. Staffing: Adequate
- m. Equipment and infrastructure: Not adequate
- n. On-going research and development programme: Adequate
- o. Availability of education and training facilities: Not adequate
- p. Proposed future courses
Urban geography, an existing course, to be modified to emphasize the management of slums and household and industrial residences.
- q. Institution participation in environmental awareness building among the public
Active. The staff have discussed on media environmental issues such as deforestation, environmental degradation, housing, environmental impact of surface (open-cast) mining.

- r. Willingness to join UNEP Environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed:
Dr. C. Dorm-Adzobu, Associate Professor and Chairman of Geography.
- t. Name and title of person from whom admission forms may be obtained:
Mr. Moore T. Worrell, Dean of Admissions.

M A D A G A S C A R

- 29. ECOLE SUPERIEURE DES SCIENCES AGRONOMIQUES (ESSA)
(Advanced College of Agricultural Sciences)
Université de Madagascar , BP 175
101 Antananarivo
MADAGASCAR
Tél: 211-03
- a. Département chargé de l'administration du cours/programme
Département des Eaux et forêts
- b. Programmes/cours offerts
Plusieurs cours sont donnés dans le cadre de l'Ecole Supérieure de Foresterie
- c. Objectifs visés par les cours
Donner des connaissances approfondies en sciences forestières et en matière de protection de la nature aussi qu'une connaissance générale des questions d'environnement.
- d. Profil environnemental du cours
L'Ecole offre des cours touchant à l'environnement et des cours sur l'environnement: contrôle des risques pour l'environnement, lutter contre la désertification, planification de l'environnement, évaluation d'impact sur l'environnement, gestion de l'environnement, technologie/ingénierie de l'environnement, ressources forestières et leur gestion, industrie et environnement, ressources naturelles, conservation et gestion des sols, eau et gestion des ressources en eau, conservation et gestion de la faune et de la flore sauvages.
- e. Diplômes exigés
Baccalauréat + Concours + deux ans de cours en agriculture
- f. Nombre d'étudiants par promotion: 20
- g. Durée de la formation: 3 ans
- h. Titre décerné à l'issue du cours
Diplôme d'Ingénieur agronome (Option Foresterie)
- i. Montant des frais d'études
Environ 40 dollars par mois par étudiant
- j. Bourses et allocations d'études
Nationales ou privées. L'admission se fait sur demande faite directement par l'étudiant
- k. Personnel enseignant: Satisfaisant

- l. Matériel et infrastructure: Satisfaisants
- m. Programmes de recherche et développement: Très bons
- n. Accès aux installations d'éducation et de formation: Satisfaisant
- o. Nouveaux cours: Aucun
- p. Participation de l'établissement à la sensibilisation du public
Active. Thèmes abordés: hygiène des forêts, conservation des sols, protection de la nature et reboisement
- q. L'établissement est-il disposé à participer au réseau de formation en matière d'environnement mis en place par le PNUE?
Réponse positive
- r. Nom de la personne à laquelle peuvent être adressées les demandes de renseignements
Le chef du Département des Eaux et Forêts
- s. Nom et titre de la personne à laquelle demander les formulaires d'inscription
Le Directeur, Ecole supérieure des sciences agronomiques

M A U R I T A N I A

- 30. Institut Supérieur des sciences (ISS)
B.P. 5026, Nouakchott
République Islamique de Mauritanie
Téléphone 51382, Téléx 598 MTN.
- a. Département chargé de l'administration du cours/programme
Département d'Education nationale
- b. Programmes/cours offerts
 - 1. Gestion des ressources en eau
 - 2. Analyse de l'eau
 - 3. Dynamique et stabilisation des dunes de sable
 - 4. Mise en valeur des ressources minérales
 - 5. Ressources marines et ressources d'eau douce
- c. Objectifs visés par les cours
Donner des informations, des connaissances et une formation conduisant à des actions concrètes positives en faveur de l'environnement
- d. Profil environnemental du cours
L'institut offre des cours sur l'environnement, des cours touchant à l'environnement et des cours de caractère général visant à sensibiliser les responsables et les dirigeants aux problèmes relatifs à l'environnement. Les cours offerts couvrent les domaines suivants: lutte contre la désertification, technologie de l'énergie, aspects géologiques, planification de l'environnement, évaluation d'impact et sur l'environnement, technologie de l'environnement, sciences du milieu marin, ressources naturelles, conservation et gestion des sols, ressources en eau et leur gestion, production alimentaire, énergies renouvelables

- e. Diplômes exigés
Baccalauréat + un an
- f. Autres conditions: Admission par concours
- g. Nombre d'étudiants: Entre 12 et 15 par classe
- h. Année universitaire: D'octobre à mai
- i. Titre décerné à l'issue du cours
Diplôme technique supérieur ou DEUG ou admission en troisième année
- j. Bourses et allocations d'études: Nationales ou privées
- k. Personnel enseignant: Satisfaisant
- l. Matériel et infrastructure: Insuffisants
- m. Programmes de recherche et développement: Satisfaisants
- n. Accès aux installations d'éducation et de formation: Insuffisants
- o. Nouveaux cours
Envahissement des palmeraies par le sable en Mauritanie, surveillance des ressources en eau, bétail et environnement
- p. Participation de l'établissement à la sensibilisation du public
Active. Thèmes abordés: Dynamique des vents et envahissement par le sable de l'aéroport de Nouakchott, projets ceinture verte
- q. L'établissement est-il disposé à participer au réseau de formation en matière d'environnement mis en place par le PNUE?
Réponse positive
- r. Nom de la personne à laquelle peuvent être adressées les demandes de renseignements
Le Directeur de l'Institut
- s. Nom et titre de la personne à laquelle demander les formulaires d'inscription
M. Mola Salama, Directeur des Etudes

M A U R I T I U S

- 31. UNIVERSITY OF MAURITIUS
School of Industrial Technology
REDUIT
MAURITIUS, Indian Ocean.
- a. Department responsible for the programme/course
Civil Engineering Division
- b. Course objectives
To train engineers and assistant engineers in the field of public health engineering so that they can help to upgrade water and sanitation facilities and the environment in general.

- c. Course outline
In addition to offering general courses in environmental awareness for decision-makers and policy makers, the School provides professional courses at diploma and degree level. The courses are offered with environmental components, which include: control of environmental hazards, energy technology, environmental design, environmental impact assessment, environmental management, environmental technology/engineering, industry and environment, water and water resources management.
- d. Academic entrance requirements
For diploma courses: 5 'O' level passes. For B.Tech, 5 'O' level passes with at least two of the passes at 'A' level.
- e. Other requirements
For the Diploma in Public Health Engineering courses, students must have already followed a basic course in sanitary science.
- f. Number of students admitted at a time
Diploma in Sanitary Science: 25 sponsored students
Diploma in Public Health Engineering: 11 sponsored students
Bachelor of Technology: 10 students
- g. Academic year: October to June
- h. Duration of Training: Diploma 2 years, Degree 4 years
- i. Type of award at completion
Diploma in Sanitary Science (DSS)
Diploma in Public Health Engineering (DPHE)
B.Tech (Hons) Civil Engineering/B.Tech
- j. Cost of the course: US\$ 5,000
- k. Admission
For B. Tech - by direct application from student
For DSS and DPHE students - sponsorship by Government is essential.
- l. Staffing: Adequate
- m. Equipment and infrastructure: Adequate
- n. On-going research and development programme: Not adequate
- o. Availability of education and training facilities: Adequate
- p. Proposed future courses
At present the Diploma in Sanitary Science Course trains school leavers who are sponsored by the Ministry of Health (MTS) to work as Health Inspectors after their training. The Diploma in Public Health Engineering aims at upgrading Health Inspectors so that they can work as assistant engineers in the field of PHE. Students holders of Diploma in Sanitary Science are sponsored by the Commonwealth Regional Health Secretariat (CRHS) based in Arusha Tanzania. It is now proposed to combine both courses into a diploma or a degree course in 'Environmental Health Science'. This will be proposed to the CRHS for continuation of the training programme once the present protocol expires in June 1990.

- q. Willingness to join UNEP Environment Training Network: Positive
- r. Name of official to whom enquiries may be addressed
Dr. I. Fagoone, Associate Professor
- s. Name & title of official from whom admission forms may be obtained
Registrar, University of Mauritius.
32. SCHOOL OF AGRICULTURE
UNIVERSITY OF MAURITIUS
REDUIT
MAURITIUS, INDIAN OCEAN
Tel: 54-1041, Telex 4621 UNIM IW
- a. Department responsible for the Programmes/Courses: Pure Science
- b. Programmes/courses offered
B.Sc. (Hons) Pure Science in Environmental Studies.
- c. Course objectives
To provide training so as to develop expertise in rational exploitation of natural resources, and to protect and conserve the environment.
- d. Course outline
The course covers areas which include: chemical safety, control of environmental hazards, environmental design, environmental impact assessment, environmental technology and engineering, industry and environment, marine environmental science, natural resources, soil conservation and management, water and water resources management, wildlife management and conservation.
- e. Academic entrance requirements
Good Advanced Levels (Grade A, B) in three science subjects (including maths) - usually chemistry, physics, biology, geography.
- f. Other requirements
Keen interest in environment. Student can apply directly.
- g. Number of students admitted at a time: 20
- h. Academic year: September to June
- i. Duration of training
3 years for B.Sc. in Environmental Studies. More time for higher degrees.
- j. Type of award at completion: B.Sc., M.Sc., Ph.D.
- k. Cost of the course: US\$ 800 per annum (tuition fees only)
- l. Sponsorship: By government, NGO or private
- m. Staffing: Adequate
- n. Equipment and infrastructure: Adequate
- o. On-going research and development programme: Adequate

- p. Availability of education and training facilities: Adequate
- q. Institutional participation in environmental awareness building among the public
Issues dealt with include: general environmental aspects and problems, erosion, industrial, aquatic and marine pollution, natural resources, waste management, and wildlife.
- r. Willingness to join UNEP Environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed
Dr. I. Fagoone, Associate Professor
- t. Name and title of official from whom admission forms may be obtained:
Registrar, University of Mauritius

N I G E R I A

33. AHMADU BELLO UNIVERSITY
ZARIA
NIGERIA

Tel: (069) 50691, 50581-4. Telex 75241 ZARABU or 75244 CON NG

- a. Department responsible for the course/programme
Urban and Regional Planning
- b. Programmes/courses offered
 - 1. B.URP
 - 2. M.URP
 - 3. M.Sc.(URP)
 - 4. Ph.D
 - 5. Short Summer Programmes in Environmental planning
- c. Course objectives
 - 1. To produce design-oriented and environmentally-conscious practical professionals equipped with skills useful to national development.
 - 2. To expose students to the full range of issues involved in physical planning and other related areas of training at all levels to meet physical planning challenges in public and private sectors.
 - 3. To provide research opportunities and refresher courses for practising planners, administrators and other related professionals as well as consultancy and community services.
- d. Environmental profile of the courses
The department offers courses in environment, courses with environmental components, as well as general courses in environmental awareness for decision-makers and policy-makers. Specific courses with environmental components offered are: environmental science; environmental design (physical planning aspect); transport planning and environmental engineering; regional resources planning, graphic communication, land surveying; research methods; urbanization and population studies; physical geography, environmental pollution and conservation, etc.
- e. Academic requirements
For Bachelor Urban Planning (B.URP): 2 GCE "A" level passes or equivalent; a minimum of 5 GCE "O" level passes in subjects referred to by the Faculty.

- f. Number of students admitted at a time
For B.URP: (20-40); for M.URP: (10); for Ph.D: (4)
- g. Academic year: October to June
- h. Type of award at completion: Bachelors (B.URP), Masters: (M.Sc., M.URP) and Doctorate
- i. Cost of the course: Naira 4,650 per year
- j. Sponsorship:
Government/private. Admission to course normally by direct application from the student.
- k. Staffing: Adequate
- l. Equipment and infrastructure: Adequate
- m. Ongoing research and development programme: Not adequate
- n. Institutional participation in environmental awareness building among the public: Active
- o. Additional information

The Faculty of Environmental Design has five departments:

- 1. Industrial Design
- 2. Architecture
- 3. Fine Art
- 4. Urban and Regional Planning, and
- 5. Building, with a total student population of 909 made up of 765 males and 144 females for the 1986/87 Session, while the staff population for the same session is about 107 out of which about 34 are non-Nigerians.

- p. Willingness to join UNEP Environmental Training Network: Positive
- q. Name of official to whom enquiries may be addressed
Dean, Faculty of Environmental Design
- r. Name and title of person from whom admission forms may be obtained
Academic Officer, Post-graduate School

34. OBAFEMI AWOLowo UNIVERSITY

Ile-Ife, Oyo State,
NIGERIA

Telephone Ile-Ife (036) 230290-9

a.I DEPARTMENT OF ENVIRONMENTAL HEALTH AND EPIDEMIOLOGY

b. Programmes/courses offered

The university offers two programmes at the undergraduate and post-graduate levels in Environmental Health.

c. Course objectives

To train Environmental Health professionals who should be able to perform responsibilities in environmental health in communities of diverse economic and social conditions as are to be found in Nigeria.

d. Course outline

Part I covers the basic sciences of chemistry, physics and biology and introduces students to Man and His Environment and Wealth and Poverty of Nations to show the linkages between environment, development and underdevelopment.

Parts II, III and IV: The environmental dimensions and considerations are diffused throughout these parts which deal with the traditional public health courses. In addition, they introduce courses in environmental health education, environmental epidemiology, fundamentals of environmental health analysis, air pollution control, stream sanitation, environmental impact assessment, environmental chemistry and microbiology, and environmental inspection and management of community health problems. There is a period of attachment to a Public Health Department for students as part of their field training.

e. Academic entrance requirements

For B.Sc. (EVH) Part I - a pass at credit level in the West African School Certificate or the General Certificate of Education (WASC/GCE) in at least five subjects including English language, Mathematics, and at least two science subjects are taken and passed at not more than two sittings.

For B.Sc. (EVH) Part II - Admission with exemption from Part I. includes:

- (i) A good pass at Advanced Level of the General Certificate of Education or its equivalent in any two of Biology (or Zoology), Chemistry and Physics or at Principal Level at the Higher School Certificate.
- or (ii) The Public Health Inspector's Diploma of the Royal Society of Health (West Africa) with at least three other subjects which must include English and any two sciences passed with credit at the Ordinary Level;
- or (iii) Transfer from other faculties of this or other universities.

f. For M.Sc. Degree Programme in Environmental Health

g. Course objective

To educate and train qualified persons in the specialised areas of environmental health for career opportunities in higher institutions of learning as well as research and service positions in governmental, industrial and private firms and laboratories.

h. Programme outline

The programme consists of core courses, electives and dissertation. There are 5 core courses in: Principles of Environmental Health, Advanced Environmental Epidemiology, Environmental Health Management and Administration, Water and its Impurities, and Management of Liquid and Solid Wastes; and electives chosen from: Water Resources and Management, Sewage Management, Industrial Wastes Management, Food Safety, Environmental Microbiology, Air Quality Control, and Occupational Health and Safety.

- i. Academic entrance
A Bachelor's Degree (not lower than a Second Class Lower Division Honours) in the relevant sciences (e.g. physical, biological, natural and health sciences).
- j. Number of students admitted at a time: 15-20 for B.Sc. (EVH)
& 2-3 for M.Sc. (EVH)
- k. Academic year: October to August
- l. Duration of training: 3-4 years for B.Sc. (EVH)
12 months for M.Sc. (EVH)
- m. Type of award at completion: B.Sc. (EVH) and M.Sc. (EVH)
- n. Sponsorship: Government/individual
- o. Staffing: Adequate
- p. Equipment and infrastructure: Adequate
- q. On-going research and development programme: Adequate
- r. Availability of education and training facilities: Adequate.
- s. Institutional participation in environmental awareness building among the public
Active; topics covered include water supply and sanitation and industrial wastes management.
- t. Willingness to join UNEP Environmental Training Network: Positive
- u. Name of Chairman/Dean/Professor to whom enquiries may be addressed
Professor Olu.O. Songonuga, Head of Dept., Department of Environmental Health and Epidemiology.
- v. Name and title of official from whom admission forms may be obtained
 - (i) B.Sc. Programme: The Registrar, JAMB, 13, Hawksworth Road, Ikoyi, Lagos, Nigeria.
 - (ii) M.Sc. Programme: Mrs. W.A. Ladipo, Secretary.
Post graduate School, Obafemi Awolowo University.

a. II INSTITUTE OF ECOLOGY

- b. Environmental programmes/courses offered
Short courses, M.Sc. and Ph.D
- c. Course objective
 - 1. To raise the level of awareness among decision-makers and policy-makers concerning environmental issues at local and national level.
 - 2. To equip professionals with knowledge and skills to deal with current environmental issues and to anticipate new ones.

- d. Environmental profile of the course/s
The Institute, in collaboration with other departments of the University, offers courses in environment, courses with environmental components and general courses in environmental awareness for policy-makers and decision-makers. Specific courses offered cover the following topics: chemical safety, control of environmental hazards, desertification control, energy technology, environmental aspects of geology (mining), environmental design, environmental impact assessment and management, environmental technology/engineering, industry and environment, natural resources, soil conservation and management, water and water resources management, wildlife management and conservation, aquatic management, pesticide application and residue analysis, radiation biology, ecological modelling for resource use, waste management, human settlements and environment, environmental toxicity, GIS, photogrammetry and remote sensing
- f. Other entry requirements
A good B.Sc./B.A. degree for M.Sc. courses
- g. Number of students admitted at a time: 15-20 for M.Sc.
- h. Academic year: October to August
- j. Type of award/s at completion:
Certificate, Diploma, M.Sc., Ph.D
- k. Cost of course (US\$): Not given
- l. Sponsorship: Govt/NGO/private
- m. Staffing: Very good
- n. Equipment and infrastructure: Not adequate
- o. On-going research and development/programme: Adequate
- p. Availability of education and training facilities: Adequate
- q. Proposed future courses
M.Sc. course (12 months) in Food, Nutrition and Environment and Water Resources management
- s. Willingness to join UNEP Environmental Training Network: Positive
- t. Name of official to whom enquiries may be addressed
Prof. A. Imevbore, Institute of Ecology
- u. Name and title of person from whom admission forms may be obtained
The Registrar, Obafemi Awolowo University
35. UNIVERSITY OF MAIDUGURI
PMB 1069, Maiduguri, Borno State
NIGERIA
- a. Department responsible for the Course
Centre for Arid Zone Studies, Department of Biological Sciences.

b. Programmes/Courses offered

Five M.Sc. Programmes and
One Ph.D. Programme

Course 1: M.Sc. in Arid Zone Ecology

Course objectives

- (i) To train graduates in the techniques and concepts relevant to the fuller understanding of the underlying principles of arid zone ecology in the sub-Saharan Sahel and savanna zones.
- (ii) To guide graduates to use the knowledge they acquire to contribute to the long-term development of this region of limited and erratic rainfall.
- (iii) To gain an understanding of the biological principles underlying the process of desertification in order to evolve a long-term plan to halt the desert creep; to rehabilitate affected areas; and to develop the resources of this potentially productive region for the benefit of future generations.

The MSc course is complete in itself, but it can also lead on to Ph.D degree programmes in the planning, management and conservation of the natural resources of the arid zone on which depends the prosperity of a large part of Africa.

d. Course outline

Five compulsory core courses, three optional courses and a compulsory research. Core courses are: climatic factors in arid environments; geology, geomorphology and pedology of arid environments; the ecology of plant components of ecosystems in arid environments; the ecology of animal components of ecosystems of arid environments; conservation in arid environments.

Course 2 - M.Sc Degree in Applied Entomology and Parasitology

Course outline

The course consists of four compulsory core courses, in methods in entomology, methods in parasitology, medical entomology and parasitology, veterinary entomology and parasitology; entomology, aspects of control, research design; and dissertation (6 units).

Course 3 - M.Sc Degree in Plant Morphology and plant physiology

Course outline

The course consists of four compulsory Core Courses in morphology and phylogeny of non-vascular plants, morphology and phylogeny of vascular plants, plant biochemistry and plant genetics; four optional courses and a research dissertation.

Course 4. M.Sc. in Geography - Climatology

Course outline

Physical climatology, dynamic climatology, climatology of the arid lands, climatology in the humid tropics, past climates and climatic change, climatic classification and climatic regions, anthropogenic climatics.

Course 5. Master of Science (M.Sc) in Geology: Hydrogeology

Course outline

This consists of: hydrology, structural hydrogeology, hydrogeological maps, applied hydrogeology (communal water supply, irrigation, drainage, hydrogeological surveying), ground water hydraulics, chemistry of ground water, capturing of good water, management of ground water, hydrogeology of Nigeria, principles of remote sensing, application of geophysical methods in ground water exploitation, surveying, numerical analysis and modelling of ground water flow, hydrogeological aspects of engineering geology, instrumental geophysics in hydrology and hydrophysiography.

e. Academic entrance requirements

Candidates should have a B.Sc. Honours degree in the appropriate fields of zoology, botany, biology, geography, geology, with a First or Second class Honours or equivalent qualification acceptable to Senate.

f. Other requirements

Academic transcripts and copies of all certificates

g. Number of students admitted at a time: About 5 per course

h. Academic year: November to August

i. Duration of training: 18 - 24 months (Masters). 36 months (Ph.D.)

j. Type of award at completion: M.Sc. (in the appropriate discipline)
Ph.D. in Arid Zone Ecology

k. Cost of the course: US\$ 4000 p.a.

l. Sponsorship: Government or private

m. Staffing: Very good

n. Equipment and infrastructure: Adequate

o. On-going research and development: Very good

p. Availability of education and training facilities: Very good

q. Institutional participation in environmental awareness building among the public
Active. The staff have been involved in dissemination of environmental information to public through news media, including discussion of the problems of desertification in the North-Eastern Nigeria.

r. Additional information

The courses are relevant to local, regional and international needs. For Ph.D. the capacity to read relevant literature in more than one language is essential - i.e. French is essential; for field work with local farmers and stockbreeders, Kanuri or Hausa or Ffulde are essential.

s. Name of official to whom enquiries may be addressed

The Academic Registrar (Post Graduate Courses) with a copy direct to: The Head, Biological Sciences Department.

t. Name and title of person from whom admission forms may be obtained
The Registrar

36. REGIONAL CENTRE FOR TRAINING IN AEROSPACE SURVEYS (RECTAS):
OAU CAMPUS, PMB 5545, Ile-Ife
NIGERIA
Tel: 230225 Telex 34262 RECTAS NG

a. Departments responsible for the course/programme

1. Dept. of Photointerpretation and Remote Sensing
2. Dept. of Photogrammetry with inputs from the Dept. of Computer Sciences and Instrument Maintenance Unit

b. Environmental programme/courses offered

1. Technician's Diploma in Photointerpretation and Remote Sensing
2. Technician's Diploma in Photogrammetry
3. Technologist's Diploma in Photogrammetry
4. Postgraduate Diploma in Photointerpretation and Remote Sensing
5. Postgraduate Diploma in Photogrammetry

c. Course objectives

1. At the technician level: the training is to enable trainees to carry out those routine tasks relating to image interpretation, cartographic conversion of result into recommended thematic maps, and to carry out supervised routine field checking activities.
2. At the postgraduate level: a) to impart the necessary skills for processing and interpretation of aerospace images (aerial photos and satellite images) with a view to acquiring spatial information about environmental phenomena; b) to handle the planning and execution of photogrammetric projects relating to production and revision of topographic maps, 3-dimensional terrain models relevant to the development of GIS.

d. Environmental profile of the courses

The various courses culminate individual projects of specialisation in remote sensing and photogrammetric applications which are in the following disciplines and inter-disciplines:

Single disciplines

- Soil Survey and agricultural land evaluation;
- terrain analysis and general land capability classification;
- forest resources and management surveys;
- rangeland resources and management surveys;
- rural survey and land-use planning;
- urban survey and land-use planning;
- farming systems and crop surveys;
- water resources and management survey;
- geological and applied geological surveys;
- map making and updating (Cartography);
- coastal management and marine resources surveys;
- meteorological and climatological applications.

Inter-disciplines

- Rural land-use, population, development and environmental impact;
- urban land-use, population, development and environmental impact;
- natural and human-induced hazards: drought and desertification, disease environmental detection, locust/grasshoppers invasion, endemicity of schistosomiasis trypanosomiasis, etc;
- Industrial waste and pollution.

e. Academic requirements

1. Technician's Diploma: School Certificate in science and mathematical subjects.
2. Technologist's Diploma: Technician's Diploma, Higher School Certificate, or its equivalent, in science and mathematical subjects.
3. a) Postgraduate Diploma: B.Sc. , M.Sc. or Ph.D; b) Technologist's Diploma with considerable experience.

f. Other entry requirements

1. Working experience in the area of discipline to which Remote Sensing/Photogrammetry is to be applied to spatial data acquisition.
2. Stereoscopic and colour vision are absolutely necessary.

g. Number of students admitted at a time

1. Technician's Diploma (Photogrammetry): 10-12
2. technician's Dipploma (Remote Sensing): 10
3. Technologist's Diploma (Photogrammetry): 10-20
4. Postgraduate Dip. (Remote Sensing/Photogrammetry): 10 in each case

h. Academic year

1. Technician's Dip.: December and January
2. Technologist's Dip.: April
3. Postgraduate Dip.: October

i. Duration of training

1. Technician's Diploma (Remote Sensing): 9 months
2. Technician's Diploma (Photogrammetry): 22 months
3. Technologist's Diploma (Photogrammetry): 16 months
4. Postgraduate Diploma (Photogrammetry): 12 months

j. Type of award/s at completion

Technician's Diploma
Technologist's Diploma
Postgraduate Diploma

k. Cost of course (US\$)

Technician's Diploma(9 mths) Remote Sensing : 1185
Technician's Diploma (22 mths) Photogrammetry : 1500
Technologist's Diploma (16 mths) Photogrammetry: 1305
Postgraduate Diploma (12 mths) Remote Sensing : 3200
Postgraduate Diploma (12 mths) Photogrammetry: 2800

l. Sponsorship: Govt/NGO/private

m. Staffing: Adequate

n. Equipment and infrastructure: Very good

o. On-going research and development/programme: Very good

p. Availability of education and training facilities: Very good

q. Proposed future courses

Technologist's course in Remote Sensing for technical officers with considerable experience in the relevant field of environmental programmes

r. Willingness to join UNEP Environmental Training Network: Positive

- s. Name of official to whom enquiries may be addressed
Prof. D.D. Ayeni, Director
- t. Name and title of person from whom admission forms may be obtained
E. Amamoo-Otchere, Acting Head, Dept. of Photointerpretation and Remote Sensing

37. ANAMBRA STATE UNIVERSITY OF TECHNOLOGY
Independence Layout PMB 01660. ENUGU
NIGERIA
Tel: (042) 331244, 331253 Telex: 51440 ASUTEC NG

a.I DEPARTMENT OF ARCHITECTURE AND BUILDING TECHNOLOGY, FACULTY OF ENVIRONMENTAL STUDIES

- b. Programme/courses offered
M.Sc and Post-graduate Diploma in Environmental Management
- c. Course objectives
To assist the student to specialise in environmental management
- d. Environmental profile of the course
The courses deal with analysis, planning and design and maintenance of human environment within buildings, towns, cities and the surrounding regions. The unifying theme is the psychological and physiological requirements of people within the built-environment and the meeting of these requirements in the management of built-up environment and conservation of the natural environment.
The Diploma Course covers: man/environment relations (ecology and ecosystems, human settlements, environmental problems and control measures, development controls - role in maintaining, environmental standards, etc.), theory and methods of environmental analysis, modern building materials, urban design and landscape studies, building economics and management, environmental engineering and management, seminar on tropical environment.
The M.Sc Programme covers: advanced man/environment studies, managerial economics, environmental hazards, energy factors in architecture, construction plant management, operations research, theory and strategies of rural development; dynamics of management, building services, organisation, management; technology of environmental control; the government and the environment; housing (urban and rural); landscape architecture; advanced environmental engineering and management; seminars on: African and modern architecture, environmental applications of technology and pollution control.
- e. Academic requirements
Experience in any area of environmental management
- f. Number of students admitted at a time: 10
- g. Academic year: October to September
- h. Duration of training
One year for the Diploma (18 months for part-time study) and 2 years for M.Sc.

- i. Type of award at completion
Diploma and M.Sc. in Environmental Management
- j. Cost of the course: US\$ 2000 per annum
- k. Sponsorship: Government/private
- l. Staffing: Very good
- m. Equipment and infrastructure: Adequate
- n. Ongoing research and development programme
Not adequate (financial assistance needed)
- o. Availability of education and training facilities: Adequate
- p. Proposed future courses
Rural Development. This programme will focus mainly on the modalities for solving rural development problems in the developing countries.
- q. Institutional participation in environmental awareness building among the public
Active. Issues discussed include: (1) energy situation in Nigeria. This is a series of national network programmes on energy, (2) Housing development in Nigeria.
- r. Additional information
The Faculty of Environmental Sciences publishes an international journal in environmental sciences titled: Environmental Sciences: an International Journal, with an international editorial board drawn from Nigeria, UK, India, USA, Australia, Latin America. The programme is open to foreign students.
- s. Willingness to join UNEP Environmental Training Network: Positive
- t. Name of official to whom enquiries may be addressed
Prof. Nelson I. Ngoka, Dean, Faculty of Environmental Sciences
- u. Name and title of person from whom admission forms may be obtained
Registrar, Anambra State University of Technology

a.II DEPARTMENT OF URBAN AND REGIONAL PLANNING

- b. Environmental programmes/courses offered
Urban and Regional planning
- c. Course objective
To create awareness and responsibilities with regard to the social and economic development associated with rapid development and change.
- d. Environmental profile of the course/s
The Dept. offers courses in environment, courses with environmental components and general courses in environmental awareness for decision-makers and policy-makers. Individual courses cover the following environmental topics: control of environmental hazards, desertification control, environmental design, environmental impact assessment and management, environmental technology/engineering, industry and environment, soil conservation and management, natural resources.

Other specific courses are: landscaping, land-use, rural, regional and natural planning, site plan and selection.

- e. Academic entry requirements
 - 1. For undergraduates: 2 GCE 'A' level passes or equivalent; a minimum of 5 GCE 'O' level or WASC credit passes in relevant subjects
 - 2. For postgraduate Diploma: B.Sc. or HND Upper Credit pass.
 - 3. For M.Sc. and Ph.D.: B.Sc. 2nd class Upper Credit pass
- f. Other entry requirements: None
- g. Number of students admitted at a time
Undergraduate: 20
Postgraduate: 10-15
- h. Academic year: October to September
- i. Duration of training: Varies with level of course
- j. Type of award/s at completion
Diploma, Bachelors, Masters and Ph.D
- k. Cost of course (US\$): 2500 per annum
- l. Sponsorship: Govt/NGO/private - admission by direct application from student
- m. Staffing: Adequate
- n. Equipment and infrastructure: Adequate
- o. On-going research and development/programme: Adequate
- p. Availability of education and training facilities: Adequate
- q. Proposed future courses: None
- r. Willingness to join UNEP Environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed
Dr. Chidi Ugwu, or Head of Dept.
- t. Name and title of person from whom admission forms may be obtained
The Registrar

38. UNIVERSITY OF LAGOS
Akoka, Yaba, Lagos
NIGERIA

a. I DEPARTMENT OF CIVIL ENGINEERING

b. Programmes/courses offered
B.Sc. (Civil Engineering)

c. Course objectives
To produce civil engineers with public health component

- d. Course outline
The course in civil engineering includes the following environmental areas: environmental design, environmental impact assessment, environmental management, environmental technology/engineering, environmental marine science, water and water resources management.
- e. Academic requirements: GCE "O" level, GCE "A" level
- f. Other requirements: Good grades in physics, maths, chemistry and two other subjects
- g. Number of students admitted at a time: 50-60
- h. Academic year: October to August
- i. Type of award at completion: B.Sc (Civil Engineering)
- j. Cost of the course: US\$5000 - 10,000
- k. Sponsorship: Application from student, Government/private
- l. Staffing: Adequate
- m. Equipment and infrastructure: Adequate
- n. Ongoing research and development programme: Not adequate
- o. Availability of education and training facilities: Adequate
- p. Proposed future courses:
M.Sc in Environmental Engineering (with Public Health Engineering bias)
Ph.D in Environmental Engineering
- q. Institutional participation in environmental awareness building among the public:
Active. Topics covered included water supply and sanitation.
- r. Willingness to join UNEP Environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed:
Prof. K.O. Iwugo; Dr (Mrs) A.O.T. Odumosu
- t. Name and title of person from whom admission forms may be obtained:
 1. Joint Admissions Matriculation Board, 13 Hawksworth Rd, Ikoyi, Lagos, Nigeria.
 2. Dean, School of Postgraduate Studies, for postgraduate admissions.

a. II DEPARTMENT OF ARCHITECTURE AND DESIGN

- b. Programmes/courses offered
4 year 2 tier degree: Bachelor of Environmental Sciences plus a 2 year Bachelor of Architecture (B.Arch.)
- c. Course objective
The programme is structured to encourage the understanding and ability to design buildings which are sensitive and responsive to their purpose, surroundings and culture; coherent, consistent and well ordered in their

form; and which integrate appropriate forms of technology within the architectural totality. The school helps her student to develop the ability to communicate their designs coherently and succinctly to others in all its aspects at each stage of its development and it provides an ambience that encourages creative work and enthusiasm for art, architecture and urban design, so that the student becomes naturally sensitive and competent in the development and use of an architectural language whose idioms are specifically characteristic of Africa and the African heritage.

- d. Course outline
The School offers a two-tier (4/2) degree programme, ie. B.E.S. and B.Arch. All students who seek an education in architecture come through the 4 year programme and those who wish to become architects continue through with the two year programme, if they qualify after the B.E.S. Courses offered examine the building in its setting as a) Order, ie. form and pattern; b) Place, ie. image and symbol and c) Resource. More information can be obtained from the School's brochure.
- e. Academic requirements
Senior secondary school Cert/'O' level plus JAMB Examination
- f. Other requirements
Good grades in Maths, English, Physics, Fine Arts and any other two humanities subjects
- h. Academic year: October to August
- i. Type of award/s at completion: B.E.S., B.Arch.
- j. Cost of course (US\$): 8,000; 10,000
- k. Sponsorship: Govt/private; application from student
- l. Staffing: Adequate
- m. Equipment and infrastructure: Adequate
- n. On-going research and development programme: Adequate
- o. Availability of education and training facilities: Adequate
- p. Proposed future courses
Urban and Regional Planning programme: Degree in Urban Design, Landscape Design, Interior Design
- q. Institutional Participation in environmental awareness building among the public: Active
- r. Willingness to join UNEP environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed
Head of Dept., Dept. of Architecture & Design, Faculty of Environmental Sciences, University of Lagos, Akoka - Yaba, Lagos, Nigeria
- t. Name and title of person from whom application forms may be obtained
Joint Admission Matriculation Board, 13 Hawksworth Road, Ikoyi, Lagos.

39. BAYERO UNIVERSITY, KANO
PMB 3011, Kano
NIGERIA
Tel: (064) 601280/621809. Telex 77189 UNIBYRO NG
- a. Department responsible for the Course/Programme: Geography
- b. Programmes/courses offered:
1. Land Use and Conservation
2. Water Resources Evaluation
- c. Course objectives
To evaluate and monitor the exploration of land and water resources
- d. Environmental profile of the course
The courses offered cover: soil erosion and management; desertification control (as a research topic); environmental impact assessment (including project design and appraisal); natural resources; water and water resources management, and land development and monitoring. The university also holds general courses in environmental awareness for decision-makers and policy-makers.
- e. Academic requirements
Bachelors degree in Geography, Geology, Agriculture, Soil Science and other related fields.
- f. Number of students admitted at a time: 12 and above
- g. Academic year: October to July
- h. Duration of training: Up to 2 years
- i. Type of award at completion: M.Sc degree
- j. Sponsorship:
Government/private. Admission normally by application from student
- k. Staffing: Adequate
- l. Equipment and infrastructure: Not adequate
- m. Ongoing research and development programme: Adequate
- n. Institutional participation in environmental awareness building among the public
Active. Have discussed topics which include: desertification control and drought, erosion and its control; dam construction and its environmental impact.
- o. Willingness to join UNEP Environmental Training Network: Positive
- p. Name of official to whom enquiries may be addressed
Dr. E.U. Essiet, Chairman, Dept. of Geography
- q. Name and title of person from whom admission forms may be obtained
The Academic Secretary, Bayero University, Kano

40. UNIVERSITY OF BENIN

Private Mail Bag 1154, Benin City

NIGERIA

Telephone 0520242741, 200250-200289. Telex 41365

a. Departments responsible for the courses

Geography and Regional Planning; Chemistry; Microbiology; Forestry and Wildlife.

b. Programmes/courses offered

Courses with environmental considerations are offered by the various departments in Faculties of Social Sciences, Science, and Agriculture.

c. Course outline

Faculties of Science and Social Sciences offer the following courses: Chemical safety, environmental aspects of geology/mining, environmental impact assessment, environmental management, industry and environment, natural resources, water and water resources management, urban land use control and coastal planning.

The Faculty of Science offers marine environmental science and control of environmental hazards.

The Faculty of Social Sciences offers environmental design, desertification control and soil conservation and management.

The Faculty of Agriculture offers wildlife management and conservation, forestry and soil conservation and management. All the three faculties offer forestry resources management.

d. Academic requirements

General Certificate of Education ("O" level) in five subjects for undergraduate admission; a good first degree for postgraduate admission.

e. Other requirements

Relevant GCE subjects includes Mathematics, Chemistry, Physics, Geography, English Language.

f. Number of students admitted at a time: 30-50

g. Academic year:

November to February (1st Semester), March to June (2nd Semester)

h. Duration of training: 4 years for first degree

i. Type of award at completion: B.Sc. Masters and Ph.D.

j. Cost of the course: US\$1500 p.a.

k. Sponsorship: Government/private. By direct application from student.

l. Staffing: Adequate

m. Equipment and infrastructure: Adequate

n. Ongoing research and development programme: Adequate

o. Availability of education and training facilities: Adequate

- p. Institutional participation in environmental awareness building among the public
Active. Issues discussed include: housing, waste disposal, land use management, soil erosion control.
- q. Willingness to join UNEP Environmental Training Network: Positive
- r. Names of officials to whom enquiries may be addressed
Prof. A.G. Onokerhoraye, Faculty of Social Sciences
Prof. J.A. Ekundayo, Faculty of Science
Prof. P.N. Egharevba, Faculty of Agriculture
- s. Name and title of person from whom admission forms may be obtained
The Registrar (Admissions)

41. UNIVERSITY OF NIGERIA, NSUKKA

Nsukka, Anambra State,
NIGERIA

Telephone: 042-771911/771920/771939/771951

- a. Department responsible for environmental courses/programmes
Animal Science and Soil Science
- b. Environmental programmes/courses offered
Environmental Physiology, Soil Conservation
- c. Course objective
To equip students with knowledge and skills to conserve the soil during the course of agricultural activities.
- d. Environmental profile of the course
The departments offer courses in environment, covering the following topics: Environmental impact assessment, environmental management, water and water resources management, environmental physiology and soil conservation
- e. Academic entry requirements
For B.Agric., students must fulfil the entry requirements of the University of Nigeria, Nsukka.
For M.Sc. degree, students must obtain a good Bachelors degree (Upper Second and above).
- f. Other entry requirements
None
- g. Number of students admitted at a time: 20-30
- h. Academic year: November to June
- i. Duration of training: Integral part of degree programme
- j. Type of award/s at completion
B.Agric.; M.Sc.

- k. Cost of course (US\$): Not given
- l. Sponsorship: Govt/NGO/private
- m. Staffing: Adequate
- n. Equipment and infrastructure: Not adequate
- o. On-going research and development/programme: Adequate
- p. Availability of education and training facilities: Adequate
- q. Proposed future courses
Short-term workshops on soil conservation, erosion control and agriculture
- r. Institutional participation in environmental awareness building among the public
Active: Issues discussed include soil management and soil erosion.
- s. Willingness to join UNEP environmental Training Network
Positive
- t. Name of official to whom enquiries may be addressed
Prof. T.C.O. Ndubizu, Dean of Agriculture
- u. Name and title of person from whom admission forms may be obtained
For Undergraduate courses: Joint Admission and Matriculation Board, 13
Hawthorn Road, Ikoyi, Lagos, Nigeria

42. UNIVERSITY OF NIGERIA ENUGU

Enugu Campus, Enugu
Anambra State
NIGERIA

- a. Department responsible for environmental courses/programmes
Department of Architecture
- b. Environmental programmes/courses offered
Architectural Climatology
- c. Course objective
To increase environmental awareness in architectural design.
- d. Environmental profile of the course
The course deals with environmental design, environmental management and environmental technology and engineering.
- e. Academic entry requirements
'O' level with relevant credits
- f. Other entry requirements
Students with technical drawing and Fine Arts major have an advantage.
- g. Number of students admitted at a time: 50
- h. Academic year: September to June

- j. Type of award/s at completion
The course is part of a B.Sc. and Masters programme in Architecture.
- k. Cost of course (US\$): Not given
- l. Sponsorship: Govt/NGO/private - direct application from student
- m. Staffing: Adequate
- n. Equipment and infrastructure: Adequate
- o. On-going research and development/programme: Adequate
- p. Availability of education and training facilities: Adequate
- q. Proposed future courses: None
- r. Willingness to join UNEP environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed
Arc. Chris O. Oji, Dept. of Architecture
- t. Name and title of person from whom admission forms may be obtained
Joint Admission and Matriculation Board, 13 Hawkworth Road, Ikoyi, Lagos, Nigeria.

43. FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI

PMB 1526, Owerri

NIGERIA

Telephone: 083-233228

Telex: FEDUNITECH OWERRI

- a. Department responsible for environmental courses/programmes
Dept. of Geosciences
- b. Environmental programmes/courses offered
Environmental Earth Sciences
- c. Course objective
To train students to use knowledge of geosciences to solve environmental problems.
- d. Environmental profile of the course
The following courses with environmental components are offered: control of environmental hazards, environmental aspects of geology, environmental impact assessment, natural resources, geology, geophysics, meteorology and Remote Sensing.
- e. Academic entry requirements
GCE 'O' level with emphasis on mathematics and physics.
- f. Other entry requirements
None
- g. Number of students admitted at a time: 20
- h. Academic year: October to July.

- i. Duration of training
It is part of a 4-year degree programme
- j. Type of award/s at completion
B.Sc. degree
- k. Cost of course (US\$): 6,000-12,000
- l. Sponsorship: Govt/NGO/private
- m. Staffing: Adequate
- n. Equipment and infrastructure: Not adequate
- o. On-going research and development/programme: Not adequate
- p. Availability of education and training facilities: Not adequate
- q. Proposed future courses
Short-term certificate courses in the various aspects of geosciences are anticipated for serving officers who need to update their knowledge of the subjects for greater efficiency.
- r. Institutional Participation in environmental awareness building among the public
Active: Issues discussed include: earth tremors, landslides, volcanic eruptions, erosion hazards, thunder storm hazards.
- s. Willingness to join UNEP Environmental Training Network: Positive
- t. Name of official to whom enquiries may be addressed
Head, Dept. of Geosciences
- u. Name and title of person from whom admission forms may be obtained
Joint Admissions and Matriculation Board, PMB 12748, Lagos, Nigeria

SENEGAL

44. Université Cheikh Anta Diop de Dakar

Dakar - Sénégal

Téléphone 220443 P.219

Télex UNIVDAK 262 SG

a. Département chargé de l'administration du cours/Programme:

Institut des Sciences de l'environnement (ISE)

b. Programmes/cours offerts

L'institut offre un programme de formation de second cycle de l'enseignement supérieur en sciences de l'environnement.

c. Objectifs visés par les cours

Formation de spécialistes de terrain capables d'identifier les principales composantes de l'environnement et leur interaction et connaissant les techniques modernes d'évaluation pour la gestion rationnelle du milieu.

d. Profil environnemental du cours

L'Institut offre des cours en environnement. Les cours sont les suivants: contrôle des risques en matière d'environnement, contrôle de la désertification, gestion de l'environnement, planification de l'environnement, évaluation d'impact sur l'environnement, foresterie et gestion des ressources forestières, ressources naturelles, gestion et conservation des sols, ressources en eau et leur gestion, gestion et conservation de la faune et de la flore sauvages, philosophie de l'environnement, anthropologie et environnement, zoologie et environnement, législation sur l'environnement.

e. Diplôme exigés:

Maîtrise ou équivalent.

f. Autres conditions: Epreuves de sélection.

g. Nombre d'étudiants par promotion: 15

h. Année universitaire:

De septembre à juin.

i. Durée de la formation: 1, 2 ou 3 ans selon la qualification.

j. Titre décerné à l'issue du cours:

1. Attestation d'Etudes Approfondies (AEA)
2. Diplôme d'Etudes Approfondies (DEA)
3. Doctorat.

k. Montant des frais d'études

Dépend du diplôme recherché:
1700 dollars E.U pour une année de cours
3750 dollars E.U pour 2 années de cours, et
5800 dollars E.U pour 3 années (Doctorat).

l. Bourses et allocations d'études:

Nationales/privées.

m. Personnel enseignant: Très bon.

n. Matériel et infrastructure: Satisfaisants

o. Programmes de recherche et développement: Très bons.

p. Accès aux installations d'éducation et de formation: Satisfaisants.

q. Nouveaux cours

Pollution industrielle et sécurité des industries chimiques, utilisation des données et informations, statistique et démographie, éducation aux sciences de l'environnement.

r. Participation de l'établissement à la sensibilisation du public

Active. Thèmes abordés: L'économie, le tourisme, l'environnement et le développement, le Lac quiers, l'énergie, les pêcheries, l'usage multiple des forêts; une approche environnementale, approche écologique des systèmes urbains, éducation aux sciences de l'environnement, etc.

s. Renseignements complémentaires

1. Lorsque les places sont limitées les étudiants ne sont admis qu'après examen de leurs dossiers, et il est tenu compte de leur expérience professionnelle.
2. Il est conseillé aux étudiants étrangers de faire leurs demandes d'équivalence auprès du Recteur de l'Université de Dakar.
3. Le choix des 15 étudiants est basé sur la volonté de maintenir un équilibre entre les différentes disciplines et de maintenir un quota pour les étrangers: (33%). Par exemple lors du dernier recrutement (-10ème) on a choisi: 2 spécialistes des sciences naturelles, 3 économistes, 2 géographes, 2 sociologues, 1 juriste, 1 docteur, 1 chimiste, 1 historien et 1 philosophe.

t. L'établissement est-il disposé à participer au réseau de formation en matière d'environnement mis en place par le PNUE? Réponse positive.

u. Nom de la personne à laquelle peuvent être adressées les demandes de renseignements

M. Amadou Tidiane Ba, Directeur, Institut des sciences de l'environnement

v. Nom et titre de la personne à laquelle demander les formulaires d'inscription

M. Oumoar Wane, Directeur des Etudes.

45. INSTITUT AFRICAIN POUR LE DEVELOPPEMENT ECONOMIQUE ET LA PLANIFICATION (IDEP)

Rue du 18 Juin, B.P. 3166
Dakar
SENEGAL
Téléphone 224926, 221020. Télèx 579 IDEP - SG

a. Département chargé de l'administration du cours/programmes
Section de formation et de recherche

b. Programmes/cours offerts
Energie, environnement et développement en Afrique

c. Objectifs visés par les cours
Armer les étudiants d'une connaissance et de capacités avancées dans le domaine du développement économique et de la planification

d. Profil environnemental du cours
L'institut offre des cours d'environnement des cours comportant des composantes d'environnement, ainsi que des cours d'ordre général destinés

à conscientiser les responsables politiques et les preneurs de décisions aux questions relatives à l'environnement. Les cours spécifiques comprennent: la lutte contre les risques posés à l'environnement, la lutte contre la désertification, la technologie de l'énergie, la gestion du milieu, l'évaluation de l'impact sur l'environnement, la foresterie, les ressources naturelles, la défense et la protection du sol, la gestion et la conservation de la faune et de la flore sauvages, ainsi que les perspectives africaines dans le domaine de l'énergie, de l'environnement et du développement.

- e. Diplôme exigés
Personnel de haut niveau, ayant une expérience appropriée en la matière et titulaire d'un premier certificat.
- f. Nombre d'étudiants par promotion: 30
- g. Année universitaire Varie selon le cours
- h. Durée de la formation Varie selon le cours
- i. Titre décerné à l'issue du cours:
Certificat, diplôme et maîtrise
- j. Montant des frais d'études: 2 930 Dollars E.-U.
- k. Bourses et allocations d'études: de l'Etat ou privé
- l. Personnel enseignant: Satisfaisant
- m. Matériel et infrastructure: Satisfaisants
- n. Programmes de recherche et développement: Satisfaisants
- o. Accès aux installations d'éducation et formation: Satisfaisant
- p. Renseignements complémentaires
En plus des unités de formation et de recherche, l'IDEP dispose d'une bibliothèque, d'un centre de documentation, d'un centre d'information et de services d'interprétation et de traduction.
- q. L'établissement est-il disposé à participer au réseau de formation en matière d'environnement mis en place par le PNUE?: Positive
- r. Nom de la personne à laquelle peuvent être adressées les demandes de renseignements
Dr. Essam Montasser, Directeur
- s. Nom et titre de la personne à laquelle demander les formulaires d'inscription
Mr. Shimellis Tekle-Tsadik, Chef de la section de recherche et d'information

S I E R R A L E O N E

46. NJALA UNIVERSITY COLLEGE, UNIVERSITY OF SIERRA LEONE
PMB Freetown
SIERRA LEONE

- a. Department responsible for the course/programme: Geography
- b. Programmes/courses offered: B.Sc. in Geography

- c. Course objectives
To train teachers for secondary schools
- d. Environmental profile of the course
Two types of courses are offered: those which have environmental components infused into them, and those that are straight courses in environment. Courses in environment include: desertification control, forestry, forestry resources and management, natural resources, soil conservation and management, water and water resources management, and population studies.
- e. Academic requirements
Five GCE 'O' levels, including geography
- f. Number of students admitted at a time: 20
- g. Duration of training: 4 years
- h. Type of award at completion: B.Sc. degree
- i. Cost of the course: US\$3,000
- j. Sponsorship: Government or private
- k. Staffing: Adequate
- l. Equipment and infrastructure: Not adequate
- m. Ongoing research and development programme: Not adequate
- n. Availability of education and training facilities: Not adequate
- o. Proposed future courses
There is a proposal to establish an institute of environmental sciences in the University of Sierra Leone; also to train graduate teachers in environmental education.
- p. Willingness to join UNEP Environmental Training Network: Positive
- q. Name of official to whom enquiries may be addressed
Dr. Herbert B.S. Kandeh, Chairman, Dept. of Geography
- r. Name and title of person from whom admission forms may be obtained
The Registrar, Njala University College

S U D A N

- 47. INSTITUTE OF ENVIRONMENTAL STUDIES
University of Khartoum
P.O. Box 321, Khartoum
SUDAN
Tel: 80993
- a. Department responsible for the programme/course
Institute of Environmental Studies

b. Programmes/courses offered

1. M.Sc. in Environmental Studies
2. M.Sc. in Meteorology
3. Short training courses for professionals, decision-makers, policy-makers and NGO leaders.

c. Programme/course objectives

- (a) For masters programme: (i) to introduce students to various environmental issues and to develop an appreciation of the interdisciplinary nature of the problems involved;
(ii) to develop appropriate skills and competence necessary for analysis, assessment and resolution of environmental conflicts in a more comprehensive and integrated way.
- (b) For short training courses: To develop skills for practical studies and resolution of environmental problems.

d. Course Outline (Masters Programme):

The programme consists of twelve compulsory core courses and two research related optional courses, done in the first year. The core courses are: principles of environmental science; applied climatology and geomorphology; cartography and remote sensing; community health and demography; environmental economics; basic statistics for environmental research; environmental assessment, management and planning; rural development; environmental and resource law; applied ecology; production technology, engineering and the environment; methods of environmental research and assessment (including environmental case studies).

The second year is devoted to research. The Institute has selected four major research topics that are of both national and regional significance. These topics will be the focus of interdisciplinary staff research and teaching and of graduate M.Sc. theses. Research related optional courses are designed to prepare students for the research work they will undertake in the second year connected with these four research areas: fresh water ecosystem management, arid land management, coastal zone management, and urban and regional management.

e. Course outline for general programme

The Institute offers three-week short training courses designed to the needs of specific groups. Courses conducted include: environmental impact of development: for planners and administrators; water for human needs: for workers from National Water Corporation; environmental education - a continuous course for teachers and curriculum developers.

f. Academic entrance requirements

- (i) B.Sc. or BA Honours, or B.Sc. or B.A. General with at least three years experience for masters programme;
- (ii) General education for short training courses.

g. Other requirements

Experience in an activity with environmental dimension.

h. Number of students admitted at a time: 15

- i. Duration of training: 2 years
- j. Type of award at completion
M.Sc in Environmental Studies.
In case of short training courses, certificates are awarded.
- k. Cost of the course
US\$ 5000 for two years (tuition and fees only).
- l. Sponsorship
Admission by direct application from student or by sponsorship by Government/NGO. Courses open to people from Africa region and other regions.
- m. Staffing: Very good
- n. Equipment and infrastructure: Adequate
- o. On-going research and development programme: Very good
- p. Availability of education and training facilities: Adequate.
- q. Proposed future courses
(i) The M.Sc. programme in Meteorology to offer a one-year diploma.
(ii) Short-term training courses to include more target groups.
- r. Institutional participation in environmental awareness building among the public:
Very active. Have been involved in media discussion of: desertification, drought and famine; role of youth and NGOs in environmental protection; need for environmental education in schools, urban problems, sanitation, migration, etc.
- s. Additional Information
Between 1980-1986 the Institute has trained over 63 M.Sc. graduates, 14 of them women. The students came from all over Africa region, and are employed even outside the region.
- t. Willingness to join UNEP Environmental Training Network:
Positive. Has already had close dealings with UNEP.
- u. Name of official to whom enquiries may be addressed
Dr. Yagoub Abdalla Mohamed, Director
- v. Name and title of official from whom admission forms may be obtained
Dean, Graduate College, University of Khartoum.

S W A Z I L A N D

- 48. UNIVERSITY OF SWAZILAND
P.B.4, Kwaluseni
SWAZILAND, Southern Africa
Telephone 84011/2/3/4/5. Telex 2087 WD
- a. Departments responsible for the courses/programmes
Agriculture, Biology, Chemistry, Geography and Physics

- b. Programmes/courses offered
Applied Biology and Ecology; Environmental Chemistry. The various departments of the university offer courses which have environmental components as indicated below.
- c. Environmental profile of the course
Department of Biology offers courses in applied biology and ecology.
Department of Chemistry offers analytical chemistry, project (usually environmentally-oriented) and (proposed: environmental chemistry for single majors).
Department of Geography offers agricultural geography, population and settlement, biogeography, soil analysis; applied interface studies. Geomorphology/climatology and (proposed: hydrology, land evaluation, soil and water management, surveying for single subject majors).
Faculty of Agriculture: soil and water conservation.
Department of Physics: energy and power, applications of physics
- d. Academic requirements: 'O' Level
- e. Academic year: September to July
- f. Duration of training: 4 years
- g. Type of award at completion: B.Sc. degree
- h. Sponsorship: Government/private.
Application usually direct from student
- i. Staffing: Adequate
- j. Equipment and infrastructure: Adequate
- k. Ongoing research and development programme: Adequate
- l. Availability of education and training facilities: Adequate
- m. Proposed future courses
More courses will be designed and tailored specifically to environmental monitoring and protection
- n. Willingness to join UNEP Environmental Training Network: Positive
- o. Name of official to whom enquiries may be addressed
The Heads of Departments of Biology, Chemistry, Geography, Physics; and the Dean of Faculty of Agriculture.
- p. Name and title of person from whom admission forms may be obtained
The Registrar

T A N Z A N I A

- 49. EASTERN AND SOUTHERN AFRICAN MANAGEMENT INSTITUTE (ESAMI)
Box 3030 Arusha
TANZANIA OR Box 56628 Nairobi, KENYA
Telephone 2881/5 Arusha. Telex 42076 EACOMI, Arusha

- a. Programmes/courses offered: Environment Management Programme
- b. Course objectives
1. To improve the quality of environmental management and to broaden the scope of the environmental problems within Eastern and Southern Africa sub-region.
 2. To establish environmental management as an important aspect of management systems and specialisation.
 3. To provide governments in Eastern and Southern African subregion with scientific resource base (research and training) to enable them to take appropriate managerial approaches in responding to environmental challenges within their national development policies and plans.

c. Environmental profile of the course

Training will take place in the following five subject areas:

1. Drought and desertification and their social and economic implications;
2. Environmental health and sanitation;
3. Environmental aspects of population trends and resources use;
4. Environmental management for development;
5. Environmental assessment and standardizations.

Research and publication will be centred around the five training areas, together with the development of training materials and audio-visual aids.

d. Academic requirements

A good general education, usually a university degree, plus relevant experience in the field of training.

- e. Number of students admitted at a time: 1200 p.a. (projected)
- f. Academic year: 60 courses run throughout the year
- g. Duration of training: 4 weeks per course (20 students per course)
- h. Type of award at completion: Certificate
- i. Cost of the course: US\$900 p.a.
- j. Sponsorship: Government/private companies
- k. Staffing: Very good
- l. Equipment and infrastructure: Very good
- m. Ongoing research and development programme: Adequate
- n. Availability of education and training facilities: Adequate

- o. Proposed future courses
The above course is projected to be initiated between Jan 1988 & Dec 1990
- p. Institutional participation in environmental awareness building among the public
In the pipeline
- q. Additional information
ESAMI serves the following 18 member countries - Angola, Botswana, Comoros, Djibouti, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Seychelles, Somalia, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe.
- r. Willingness to join UNEP Environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed
Mr. Deryok O. Omuodo, Coordinator, Health Services/Population Programmes
- t. Name and title of person from whom admission forms may be obtained
Registrar
- 50. COLLEGE OF AFRICAN WILDLIFE MANAGEMENT MWEKA
P.O. Box 3031, Moshi
TANZANIA
Telephone: Kibosho 18 and 24
- a. Programmes offered
Wildlife Management and Conservation
- b. Course objective
To train practical wildlife managers.
- c. Course outline
The main course offered by the College is Wildlife Management and Conservation. In the process of teaching this course, the following areas are touched: desertification control, environmental impact assessment, environmental management, forestry, forestry resources and management, marine environmental science, natural resources, soil conservation and management, water and water resources management.
- d. Academic entrance requirements
 - (i) "Ordinary" School Certificate (or equivalent);
 - (ii) "A" level School Certificate (or equivalent);
 - (iii) First degree.
- e. Other requirements
Certificate in forestry, fisheries, etc. 9 months training at Maun Wildlife Training Centre.
- f. Number of students admitted at a time: 30-50.
- g. Academic year: August to June
- h. Type of award at completion of course
Certificate, Diploma or Postgraduate Diploma in Wildlife Management and Conservation.

- i. Cost of the course: US\$ 5030
- j. Sponsorship:
Admission to course, normally by direct application from student if student is self-sponsored or by government/NGO, etc.
- k. Staffing: Adequate
- l. Equipment and infrastructure: Adequate
- m. On-going research and development programme: Not adequate
- n. Availability of education and training facilities: Adequate.
- o. Proposed future courses

The college has plans to start new courses/programmes in conservation education. The objective of the proposed course is to teach participants - i.e. administrators, teachers, students/pupils and politicians about the problems of environmental conservation, and to give them experience of these problems, especially the detriment due to misuse of environment, and suggest solutions.

There are also plans to modify the existing programmes to include new environmental components which emphasize environmental conservation aspects taught in the 23 subjects offered by the college.
- p. Institutional participation in environmental awareness building among the public. Active discussions included:

Wildlife conservation and management training, and use of wildlife resources and poaching.
- q. Willingness of institution to participate in proposed network: Positive
- r. Name of person to whom enquiries may be addressed
Mr. J.I. Boshe, Deputy Principal
- s. Name and title of official from whom admission forms may be obtained:
Mr. B.N. Mbanjo, Principal
Mr. J.I. Boshe, Deputy Principal

U G A N D A

51. MAKERERE UNIVERSITY

Box 7062, Kampala
UGANDA

- a. Department responsible for the Course/Programme: Geography
- b. Programmes/courses offered: Geography with Environmental Science
- c. Course objectives
To train graduates to enter the Public Service (e.g. Ministry of Environment Protection) or continue with postgraduate/research work.

- d. Environmental profile of the course
Students take geography and two other subjects (e.g. chemistry, botany, zoology) in Year I. In years II and III take (a) geography courses such as resources assessment, settlement geography, elements of physical geography, biogeography, air photo-interpretation and remote sensing and population geography; and (b) environmental courses including wildlife management, ecology, forestry and forestry management and chemistry.
 - e. Academic requirements
Usually "A" level subjects, including geography and science subjects.
 - f. Other requirements: Proficiency in English
 - g. Number of Students admitted at a time: Up to 20
 - h. Academic year: October to June
 - i. Duration of training: 3 years
 - j. Type of award at completion: B.Sc. degree
 - k. Cost of the course: US\$ 3000 per year for non-Ugandans
 - l. Sponsorship: Government/private
 - m. Staffing: Adequate
 - n. Equipment and infrastructure: Adequate
 - o. Ongoing research and development programme: Not adequate
 - p. Availability of education and training facilities: Adequate
 - q. Willingness to join UNEP Environmental Training Network: Positive
 - r. Name of official to whom enquiries may be addressed
Associate Professor V. Mwaka
 - s. Name and title of person from whom admission forms may be obtained
The Academic Registrar, Makerere University
52. MAKERERE UNIVERSITY
Box 7062, Kampala
UGANDA
- a. Department responsible for the course/programme
Institute of Environment and Natural Resources
 - b. Programmes/courses offered: M.Sc./Ph.D Programme
 - c. Course objectives
To train in applied aspects of environment and natural resources
 - d. Environmental profile of the course
The institute has just been established. It plans to offer post-graduate training in the following courses with these environmental components: chemical safety, forestry, forestry resources and management, natural resources, wildlife management and conservation.

- e. Academic requirements
A good first degree in an appropriate subject
- f. Other requirements: Proficiency in English
- g. Number of students admitted at a time: No fixed limit
- h. Academic year: October to June
- i. Duration of training
Depends on the programme. About two and a half years for M.Sc.
- j. Type of award at completion: M.Sc. or Ph.D
- k. Cost of the course: US\$ 5000 per year for non-Ugandans
- l. Sponsorship: Government/private
- m. Staffing: Adequate
- n. Equipment and infrastructure: Adequate
- o. Ongoing research and development programme: Adequate
- p. Availability of education and training facilities: Adequate
- q. Proposed Future Courses
 - 1. A B.Sc. in Environmental Science, broadly based
 - 2. Further M.Sc. programmes
 - 3. Periodic workshops on practical environmental aspects
- r. Institutional participation in environmental awareness building among the public
Occasionally. General discussion on wildlife conservation and related issues.
- s. Additional information
M.Sc. is usually by course work and thesis. Syllabuses are available in some areas; others are being prepared.
- t. Willingness to join UNEP Environmental Training Network: Positive
- u. Name of official to whom enquiries may be addressed
Prof. E.M. Tukahirwa, Director of the Institute
- v. Name and title of person from whom admission forms may be obtained
Academic Registrar, Makerere University
- 53. INSTITUTE OF TEACHER EDUCATION KYAMBOGO (ITEK)
P.O. Box 1
Kyambogo, UGANDA
Telephone, Kampala, 285001/2/3
- a. Department/s responsible for environmental courses/programmes:
Centre for Environmental Science Education, Training and Research.

b. Environmental Programmes/courses offered:

Undergraduate courses in environmental education, training and research for teachers and community workers.

c. Course objectives:

To generate environmental awareness and impact skills for effective environmental management

d. Environmental profile of the course/s:

The Centre offers courses in environment as well as courses with environmental components. Specific courses cover environmental impact assessment, environmental management, wildlife management, and conservation, and environmental education/training for community development.

e. Academic entry requirements:

GCE "A" Level and/or a professional diploma in education.

f. Other entry requirements:

Mature students who have taught for at least five years.

g. Number of students admitted at a time: 20

h. Academic year (beginning and end): October to June

i. Duration of training:

2/3 years for Diploma; 3 years for BEd.

j. Type of award/s at completion:

Diploma in Teacher Education
Bachelor of Education

k. Cost of course (US\$): 2,500

l. Sponsorship: Govt/NGO/Private

m. Staffing: Very good

n. Equipment and infrastructure: Adequate

o. On-going research and development/Programme: Adequate

p. Availability of education and training facilities: Very good

q. Proposed future courses:

- (i) Environment and development in the content of Uganda's rehabilitation plans and programmes.
- (ii) Environmental management with particular emphasis on grass roots training for community action.

(iii) Postgraduate programmes planned.

r. Institutional participation in environmental awareness building among the public:

Active environmental issues discussed include: problems of deforestation and soil erosion, environmental health, environmental aspects of development plans.

s. Willingness to join UNEP Environmental Training Network: Positive

t. Name and title of official to whom enquiries may be addressed:

Professor V.O.I Johnson, Dean of the Faculty of Science and Director of the Centre.

u. Name and title of person from whom admission forms may be obtained

Mr. J. Rusoke, Secretary/Registrar, ITEK.

Z A M B I A

54. THE COPPERBELT UNIVERSITY

P.O. Box 21692, Kitwe

ZAMBIA

Tel: 215151/215526/215761. Telex ZA 53270

a. Department responsible for the programmes/courses
School of Environmental Studies

b. Programmes/courses offered:

Courses: ESA 330 and 430: Environmental Design
ES 452: Conservation of Natural Resources, and
ESA 420: Landscape Design.

c. Course objectives:

(i) Environmental Design:

To enable students acquire knowledge and skills concerned with climatic response of a building.

(ii) Conservation of Natural Resources:

To study the Zambian urban and rural environment and to establish where development priorities should lie.

(iii) Landscape Design:

To understand ecosystems and the resulting design of urban landscapes.

d. Course outlines

Environmental Design course covers topics which include thermal environment, comfort conditions and indices; heat flow, active and passive control; shading device design; energy conservation; solar water heating systems; ventilation and air movement, design for specific climates; aural and thermal environment within the building.

Conservation of Natural Resources course looks closely at the Zambian rural and urban environment in order to establish where priorities should lie. The course covers: natural resources, methods of conservation, urban ecology, cost implications, environmental dangers to be combatted and/or avoided.

Landscape Design course covers geomorphology, soil formation and soil erosion; the biosphere; tropical vegetation; afforestation and irrigation; use of urban land; space between buildings; communal recreation areas, pavements, playgrounds.

- e. Academic entrance requirements: Five 'O' levels
- f. Other requirements
The ES 330, 420 and 430 are for 3rd and 4th year students in architecture. The ES 452 is an elective for students of architecture, B.Sc. Land Economy and Planning.
- g. Number of students admitted at a time: 12
- h. Academic year: October to August.
- i. Duration of training: 5 years
- j. Type of award at completion: B.Sc.
- k. Sponsorship: Government, company or individual
- l. Staffing: Adequate (one lecturer to less than 10 students).
- m. Equipment and infrastructure: Adequate
- n. On-going research and development programme: Not adequate
- o. Availability of education and training facilities: Adequate
- p. Willingness to join UNEP Environmental Training Network: Positive
- q. Name of official to whom enquiries may be addressed: Mr. W.F. Hill, Dean
- r. Name and title of person from whom admission forms may be obtained
Registrar, P.O. Box 21692, Kitwe.

Z I M B A B W E

55. UNIVERSITY OF ZIMBABWE

P.O. Box MP 167, Mount Pleasant, Harare

ZIMBABWE

Telephone 303211, Telex 4-152 ZW

- a.I CENTRE FOR APPLIED SOCIAL SCIENCES (CASS)
- b. Programmes/courses offered: M.Phil/D.Phil Studies
- c. Course objectives
To impart advanced level professional competence in research and planning on environmental management

- d. Environmental profile of the course
The Centre offers courses for M.Phil/D.Phil. degrees. The students are integrated into the Centre's extensive research programme on natural resource management in Zimbabwe's communal lands. The Centre's focus is on the socio-economic and management dimensions of environmental issues, but its research programme is coordinated with departments of Biological Sciences and Agricultural Economics. Research includes topics such as: environmental impact assessment, environmental management, forestry resources and management, natural resources, water and water resources management, wildlife management and conservation, livestock/grazing management.
- e. Academic requirements
M.A/M.Sc. or (exceptionally) first or upper second honours degree.
- f. Other requirements
Relevant employment experience an advantage
- g. Number of students admitted at a time: 4
- h. Duration of training
3 years full time for M.Phil and 4 years for D.Phil.
- i. Type of award at completion: M.Phil/D.Phil
- j. Cost of the course: US\$15,000 (includes field work expenses)
- k. Sponsorship: Government/private
Admission to course normally by direct application from student
- l. Staffing: Adequate
- m. Equipment and infrastructure: Not adequate
- n. Ongoing research and development programme: Very good
- o. Availability of education and training facilities: Adequate
- p. Institutional participation in environmental awareness building among the public
Active. Have discussed topics such as wildlife utilization; environmental/land use planning; grazing management, management of artisanal fisheries; socio-legal issues in environmental management.
- q. Willingness to join UNEP Environmental Training Network: Positive
- r. Name of official to whom enquiries may be addressed
Prof. M.W. Murphree, Director
- s. Name and title of person from whom admission forms may be obtained
Asst. Registrar, Faculty of Social Studies, University of Zimbabwe

a.II.DEPARTMENT OF GEOGRAPHY

- b. Programmes/courses offered
Several physical geography courses forming part of BA or B.Sc. degree in Geography

- c. Environmental profile of the course
These courses cover topics such as control of environmental hazards, desertification control, environmental management, natural resources, soil conservation and management, water and water resources management.
- d. Academic requirements
"A" level (or equivalent) with C grade in Geography and minimum of B grade in "0" level mathematics and English.
- e. Number of students admitted at a time: 90 in first year
- f. Academic year: March to November
- g. Duration of training: 3 years
- h. Type of award at completion: BA or B.Sc. degree
- i. Cost of the course: US\$2000 per year
- j. Sponsorship: Government/private
Admission by direct application from student
- k. Staffing: Not adequate
- l. Equipment and infrastructure: Adequate
- m. Ongoing research and development programme
Very good (in cases of a few staff members)
- n. Availability of education and training facilities: Adequate
- o. Institutional participation in environmental awareness building among the public
Active. Have discussed topics such as soil erosion, air pollution, deforestation.
- p. Willingness to join UNEP Environmental Training Network: Positive
- q. Name of official to whom enquiries may be addressed
Dr. C.C. Mutambirwa, Head, Dept. of Geography
- r. Name and title of person from whom admission forms may be obtained
Academic Registrar, University of Zimbabwe

a. III. DEPARTMENT OF ANIMAL SCIENCE

- b. Programmes/courses offered
Range Animal Production
- c. Course objectives
To increase range animal and game production but preserving the ecological stability

- d. Environmental profile of the course
Biology and ecology of range and animals - The range ecosystem.
Characteristics of grazing process: Animal feed requirements, measures of productivity, the animal as a regulator of ecosystem processes; feeding strategies in relation to body size and abundance of forage. Characteristics of the forage resource: productivity, forage quality, antiquality factors, examples of nutritive values of Zimbabwean grazing-land plants. Hierarchies of biological efficiency - an overview of secondary production: harvest efficiency, ingestive efficiency, digestive efficiency; metabolic efficiency; subsistence vs production systems: parasite-host, predator-prey.

Application of principles to range-animal management - Ranch management. Animal management. Supplementation of veld to meet animal requirements. Management of wildlife and the wildlife-domestic animal interaction: management of protected areas, wildlife and land use. African large mammals, wildlife management, ranching, farming and utilization, techniques.

- e. Academic requirements
"A" levels in appropriate science subjects
- f. Academic year: March to December
- g. Duration of training: 3 years
- h. Type of award at completion: B.Sc. degree
- i. Cost of the course: US\$2000 per year
- j. Sponsorship: Government/private
Application direct from student
- k. Staffing: Not adequate
- l. Equipment and infrastructure: Adequate
- m. Ongoing research and development programme : Not adequate
- n. Availability of education and training facilities: Not adequate
- o. Willingness to join UNEP Environmental Training Network: Positive
- p. Name of Official to whom enquiries may be addressed
Dr. N.T. Ngongoni, Chairman, Dept. of Animal Science
- q. Name and title of person from whom admission forms may be obtained
Deputy Registrar (Academic), University of Zimbabwe

a.IV. DEPARTMENT OF SOIL SCIENCE AND AGRICULTURAL ENGINEERING

- b. Programmes/courses offered
Introduction to Soil Science (SL 101)
Land Use and Natural Resource Evaluation (SL 204)
Soil Fertility and Fertilizers (SL 301)

- c. Course objectives
To impart knowledge and skills for practical application for sustainable agricultural production.
- d. Environmental profile of the course
The three courses have environmental components in them. These include desertification control, environmental impact assessment, environmental management, natural resources, soil conservation and management, water and water resources management, soils and fertilizers.
- e. Academic requirements
"A" level in chemistry/biology/geography or other acceptable science subjects
- f. Number of students admitted at a time: Varies from year to year
- g. Academic year: March to November
- h. Duration of training: 3 years
- i. Type of award at completion: B.Sc. Hons. Agriculture
- j. Cost of the course: US\$ 2000 per person
- k. Sponsorship: Government/private.
Admission by direct application from student
- l. Staffing: Adequate
- m. Equipment and infrastructure: Very good
- n. Ongoing research and development programme: Very good
- o. Availability of education and training facilities: Adequate
- p. Institutional participation in environmental awareness building among the public
Active. Issues discussed include soil conservation, water conservation and management, deforestation
- q. Additional information
The courses are offered as part of a full three-year programme leading to the B.Sc. Hons. degree in agriculture and are not offered in isolation except if a special request is lodged for such offerings.
- r. Willingness to join UNEP Environmental Training Network: Positive
- s. Name of official to whom enquiries may be addressed
Dr. K. W. Nyamapfene
- t. Name and title of person from whom admission forms may be obtained
Assistant Registrar, Faculty of Agriculture

a.V. DEPARTMENT OF COMMUNITY HEALTH

b. Programmes/courses offered

Environmental Health and Occupational Health

c. Course objectives

To equip future District Medical Officers with knowledge and skills of Environmental and Occupational Health for future application in their profession.

d. Environmental profile of the course

The Department offers courses in environment as well as courses with environmental components and general courses in environmental awareness for decision-makers and policy-makers. The two major courses - Environmental Health and Occupational Health - include control of environmental hazards, environmental design, water and air pollution.

e. Academic requirements: "A" Levels

f. Number of students admitted at a time: 80 per year

g. Academic year: March to November

h. Duration of training

5 years. The course is part of the M.B, Ch.B medical course

i. Type of award at completion: M.B. Ch.B. degree

j. Cost of the course: US\$ 2000 per year

k. Sponsorship

By direct application from student or sponsorship by Government/NGO

l. Staffing: Not adequate

m. Equipment and infrastructure: Not adequate

n. Ongoing research and development programme: Not adequate

o. Availability of education and development programme: Not adequate

p. Proposed future courses

Master in Public Health (MPH) with a possibility of launching a Diploma in Occupational Health

q. Institutional participation in environmental awareness building among the public

Active. Issues discussed included agro-chemical hazards

r. Willingness to join UNEP Environmental Training Network: Positive

s. Name of official to whom enquiries may be addressed

Dr. P.K. Runyowa, Chairman

t. Name and title of person from whom admission forms may be obtained

Dr. P.K. Runyowa

a.VI DEPARMENT OF CROP SCIENCE

- b. Programmes/courses offered: Grassland Science (CR 202 and CR 302)
- c. Course objectives
To equip students with knowledge and skills of range and pasture management
- d. Environmental profile of the course
The course includes range and pasture management in a sustainable way. It is offered as a component to second and third year students studying for a B.Sc. Agric, majoring in either animal science or crop science.
- e. Academic qualifications: GCE "A" Level
- f. Number of students admitted at a time: About 60
- g. Academic year: March to November
- h. Duration of training: 3 years
- i. Type of award at completion: B.Sc. Agric
- j. Cost of the course: Approx. US\$ 2000 per year
- k. Sponsorship: Government/private
Admission by direct application from student
- l. Staffing: Adequate
- m. Equipment and infrastructure: Adequate
- n. Ongoing research and development programme: Adequate
- o. Availability of education and training facilities: Adequate
- p. Institutional participation in Environmental Awareness Building among the public
Active. Have discussed range condition and range management
- q. Willingness to join UNEP Environmental Training Network: Positive
- r. Name of official to whom enquiries may be addressed
Prof. M.A. Schweppenehauser
- s. Name and title of person from whom admission forms may be obtained
Academic Registrar

CHAPTER TWO

OTHER TERTIARY LEVEL INSTITUTIONS IN AFRICA

CHAPITRE DEUX

AUTRES ETABLISSEMENTS SUPERIEURS EN AFRIQUE

CHAPTER TWO

OTHER TERTIARY LEVEL INSTITUTIONS IN THE REGION

(WHICH HAVE NOT RETURNED THE QUESTIONNAIRE IN ANNEX I)

CHAPITRE DEUX

AUTRES ETABLISSEMENTS SUPERIEURS EN AFRIQUE

ALGERIA

1. University of Algeria
2 Rue Didouche Mourad, Algiers, Algeria
Principal Officers: Rector, Secretary-General
Contact: Dean, Institute of Natural Sciences
2. Université d'Oran
Rue du Colonel Lofti, Oran, Algérie
Principal Officers: Rector, Secretary-General
3. University of Constantine
Route d'Ain El Bey Constantine, Algeria
Principal Officers: Rector, Secretary-General
Contact: Dean, Institute of Psychology & Educational Science
4. Centre National de Recherches et Expérimentations Forestières
BP 63, El Mouradia, Algiers
Contact: Director
5. Institut National de la Recherche Agronomique, Jardin d'Essais du Hamma
BP 15, El Annasser, Algiers
Contact: Director
6. Centre de Recherches Océanographiques et des Pêches (CROP)
Jetée Nord, Amirauté, Algiers
Contact: Director
7. Centre National de Recherche sur les Zones Arides (CNRZA)
Université d'Alger, 2 rue Didouche Mourad, Algiers
Contact: Director

ANGOLA

8. Universidade Agostinho Neto
CP 815, Avenue de Feyerreiro 7, 2 andar, Luanda, Angola
Principal Officers: Rector, Registrar
Contact: Deans - Faculties of Engineering, Sciences, Agriculture
9. Instituto de Investigacao Agronomic
CP 406, Huambo, Angola
Contact: Director

BURKINA FASO

10. University of Ouagadougou
BP 7021, Ouagadougou, Burkina Faso
Principal Officers: Rector, Secretary-General
Contact: Dean, College of Engineering, Higher Polytecnic

BURUNDI

11. University of Burundi
BP 1550, Bujumbura, Burundi
Principal Officers: Rector, Secretary-General
Contact: Dean, Faculty of Agriculture

CAMEROON

12. University of Yaoundé
BP 337, Yaoundé, Cameroon
Principal Officers: Vice-Chancellor, Secretary-General
Contact: Deans, Faculty of Science, Ecole Normale Supérieure
13. School for the Training of Wildlife
Specialists at Garoua
Box 271, Garoua, Cameroon
Contact: Director

CAPE VERDE

14. Direction du Service de Formation/INIA
Ministère de Développement et des Pêches
BP 50 MDRP
Praia, Cape Verde

CENTRAL AFRICAN REPUBLIC

15. Son Excellence (AMCEN Focal Point)
Le Ministre de la Santé Publique et des Affaires Sociales
BP 1416
Bangui, Central African Republic

CHAD

16. University of Chad
BP 1117, N'Djamena, Chad
Principal Officers: Rector, Secretary-General
Contact: Dean, Institute of Science Education, Psychology & Sociology

COMOROS

17. Son Excellence (AMCEN Focal Point)
Monsieur le Ministre de l'équipement, de l'environnement et du logement
BP BI
Moroni, Comoros

CONGO

18. Université Marien-Ngouabi
BP 69, Brazzaville
Principal Officers: Rector, Secretary-General
Contact: Director, Higher Institute of Educational Sciences
BP 237, Brazzaville
19. Centre Technique Forestier Tropical
BP 2141, Brazzaville
Contact: Director

COTE D'IVOIRE

20. University of Abidjan
BP V.34, Abidjan, Côte D'Ivoire
Principal Officers: Rector, Secretary-General
Contact: Deans, Faculties of Science, Institute of Technology, Institute of Tropical Geography, Higher National College of Agriculture

DJIBOUTI

21. Son Excellence (AMCEN Focal Point)
Monsieur le Ministre de l'agriculture et de l'aménagement rural
Djibouti, Djibouti

EGYPT

22. The American University in Cairo
113 Kasr El Aini Street
Cairo, Egypt
Telex 92224 AUCAI UN, Tel: 354-2964/21830
Principal Officers: President, Provost Vice-President, Registrar
Contact: Depts. of Desert Development Centre
23. University of Cairo
Giza, Egypt
Cable: Cairo University, Giza
Tel: 846144, 845186, 846247-48
Principal Officers: Rector, Vice-Rector
Contact: Deans. Faculties of Science, Engineering, Agriculture
24. Tanta University
Tanta, Egypt
Tel: 4958, 4987
Telex 93312 Un
Principal Officers: President, Vice-President, Secretary-General
Contact: Deans, Faculties of Science, Agriculture
25. Academy of Scientific Research and Technology
101 Sharia Kasr El-Aini, Cairo
Contact: Director
26. National Research Centre
Al-Tahrir St, Dokki, Cairo
Contact: Director
27. Suez Canal University
Ismailia, Egypt
Principal Officers: President, Secretary General
Contact: Deans, Faculties of Science, Engineering, Technology

EQUATORIAL GUINEA

28. Son Excellence (AMCEN Focal Point)
Le Ministre
Ministerio de Obras Publicas
Viviendas y Urbanismo
Bioko-Norte, Malabo-Equatorial Guinea

ETHIOPIA

29. Institute of Agricultural Research
Box 2003
Addis Ababa, Ethiopia
Principal Officer: Director

GABON

30. Omar Bongo University
BP 13131, Liberville, Gabon
Principal Officers: Rector, Secretary-General
Contact: Dean, Faculty of Science
National College of Forestry, National College of Engineering

GUINEA-BISSAU

31. Instituto Nacional
Complexo Escolar 14, De Novembro, Barro Gaborne
Contact: Mr. Carlos Lopes, Director
32. Mr Cipriano Cassama
Directeur-Général des Forêts et de la Chasse
CP 71, Bissau, Guinea-Bissau

KENYA

33. Egerton University
P.O. Njoro, Kenya
Contact: Vice-Chancellor
34. International Laboratories for Research in Animal Diseases (ILRAD)
Box 30709, Nairobi, Kenya
Contact: Director

LIBYA

35. Garyounis University
Box 1308, Benghazi, Libyan Arab Republic
Tel: 2966, 1961, 2858, 3362
Principal officers: President, Vice-President, Secretary-General
Contact: Deans, Faculties of Science, Engineering
36. University of Tripoli
Box 398, Libyan Arab Republic
Principal Officers: President, Secretary-General
Contact: Deans, Faculties of Science, Engineering, Agriculture

MALAWI

37. University of Malawi
Box 2781, Zomba, Malawi
Principal Officers: Vice Chancellor, Registrar
Contact: Dean, School of Agriculture

MAURITANIA

38. University of Nouakchott
BP 798, Nouakchott, Mauritania
Principal Officers: Rector, Registrar

MOROCCO

39. Mohamed V. University
3 Avenue Michlifin
BP 554, Rabat-Chellah, Morocco
Principal Officers: Rector, Secretary-General
Contact: Deans, Faculties of Science, Engineering

MOZAMBIQUE

40. Universidade Eduardo Mondlane
CP 257, Maputo, Mozambique
Principal Officers: Rector, Administration Officer, Academic Director
Contact: Deans, Faculties of Agricultural Sciences, Engineering & Biology

NIGER

41. University of Niamey
BP 237, Niamey, Niger
Principal Officers: Rector, Secretary-General
Contact: Deans, School of Science, Agriculture

NIGERIA

42. University of Calabar
PMB 1115, Calabar, Nigeria
Tel: 222855, 222695
Principal Officers: Vice-Chancellor, Registrar
Contact: Deans, Faculties of Science, Agriculture
43. University of Ibadan
Ibadan, Nigeria
Tel: 400500
Principal Officers: Vice-Chancellor, Registrar
Contact: Deans, Faculties of Science, Agriculture & Forestry Technology
44. International Institute of Tropical Agriculture
Oyo Road, PMB 5320, Ibadan, Nigeria
Tel: 31417
Contact: Director-General
45. University of Ilorin
PMB 1515, Ilorin
Principal Officer: Vice-Chancellor, Registrar
Contact: Deans of Faculties of Agriculture, Science, Engineering & Technology
46. University of Jos
PMB 2084, Jos, Nigeria
Principal Officers: Vice-Chancellor, Registrar
Contact: Deans, Faculties of Environmental Sciences, Natural Sciences

47. Ogun State University
PMB 2002, Ago-Iwoye
Principal Officers: Vice-Chancellor, Registrar
48. Rivers State University of Science and Technology
PMB 5080, Port Harcourt, Rivers State
Principal Officers: Vice-Chancellor, Registrar
Contact: Deans, Faculties of Agriculture, Engineering, Environmental Science
49. University of Port Harcourt
PMB 5323, Port Harcourt, Nigeria
Tel: 224351, 227085
Principal Officers: Vice-Chancellor, Registrar
Contact: Deans, School of Biological Sciences, Engineering
50. University of Sokoto
PMB 2346, Sokoto, Nigeria
Principal Officers: Vice-Chancellor, Registrar
Contact: Dean, Faculty of Science Agriculture

RWANDA

51. National University of Rwanda
BP 117, Butare, Rwanda
Principal Officers: Rector, Administration-Treasurer, Secretary-General
Contact: Dean, Faculty of Sciences

SIERRA LEONE

52. Fourah Bay College
Freetown, Sierra Leone
Tel: 27266
Principal Officers: Vice-Chancellor, Registrar
Contact: Deans, Faculties of Pure & Applied Sciences, Engineering, Director, Marine Biology and Oceanography

SEYCHELLES

53. His Excellency (AMCEN Focal Point)
The Minister of Planning and External Relations
Box 656, National House, Victoria, Seychelles

SOMALIA

54. Somali National University
Box 15, Mogadishu
Principal Officers: Rector, Registrar
Contact: Deans, Faculties of Agriculture, Engineering

SUDAN

55. University of Gezira
Box 20, Wad Medani, Sudan
Principal Officers: Vice-Chancellor, Secretary-General
Contact: Deans, Faculties of Agriculture Sciences, Sciences and Technology, Economics and Rural Development

56. University of Juba
Box 82, Juba, Sudan
Principal Officers: Vice-Chancellor, Secretary-General
Contact: Deans of Colleges of: Natural Resources & Environmental Studies
57. Omdurman Islamic University
Box 382, Omdurman, Sudan
Principal Officers: Vice-Chancellor, Secretary-General
Contact: Dean, Girls College

TANZANIA

58. University of Dar-es-Salaam
Box 3509, Dar-es-Salaam, Tanzania
Principal Officers: Vice-Chancellor, Chief Academic Officer
Contact: Faculty of Engineering, Science
59. Sokoine University of Agriculture
Box 3000, Chuo Kikuu, Morogoro, Tanzania
Principal Officers: Vice-Chancellor, Registrar
Contact: Deans, Faculties of Agriculture, Forestry, Veterinary Medicine

TOGO

60. University of Benin
BP 1515, Lome, Togo
Principal Officers: Rector, Secretary-General
Contact: Deans, School of Science, School of Agriculture

TUNIS

61. University of Tunis
Boulevard Bab Benat, Tunis; Tunis
Principal Officers: Director of University Establishment,
Secretary-General
Contact: Deans, Ecole Normale Supérieure,
National School of Engineering

ZAIRE

62. National University of Zaire
BP 13.399, Kinshasa, Zaire
With campuses at Kinshasa, Lubumbashi and Kisangani
Principal Officers: Rector, Vice-Rector, Secretary-General, Academic
Secretary General, Administration
Contact: Deans, Faculty of Science, National Institute of Agriculture

ZAMBIA

63. University of Zambia
Box 31338, 32379, Lusaka
Principal Officers: Vice-Chancellor, Registrar
Contact: Deans - Schools of Engineering, Agriculture
Mines, Natural Sciences

C H A P T E R T H R E E

INFORMATION ON PERSONNEL ACTIVE IN ENVIRONMENTAL TRAINING
AND RESEARCH IN TERTIARY LEVEL INSTITUTIONS IN AFRICA

C H A P I T R E T R O I S

INFORMATION SUR LES PERSONNELS TRAVAILLANT DANS
LES DOMAINES DE LA RECHERCHE ET DE LA FORMATION
EN MATIERE D'ENVIRONNEMENT

CHAPTER THREE

PERSONNEL ACTIVE IN ENVIRONMENTAL TRAINING AND RESEARCH

BOTSWANA

1. Name: Prof. Harold John COOKE
 - a. Academic Qualifications: B.A. (Hons) Ph.D.
 - b. Professional Address: University of Botswana
Private Bag 0022, Gaborone, Botswana.
 - c. Professional Title: Professor
 - d. Academic Discipline: Environmental Science.
 - e. Main Environmental Interest: The Kalahari Region: land forms, climate, resources: conservation and planning of natural resources.
 - f. Current Environmental Activities:
Teaching, research and work with NGO's (Botswana Society, Kalahari Conservation Society).
 - g. Level of Target group(s): General Public, College/University & Research.
 - h. Language(s) spoken and written:
English, Swahili (both fluent), French, German (reading only).

2. Name: Kumaroth R.S. DEVAN
 - a. Academic Qualifications: Ph.D. (OHIO), FIETE, M.Sc. (KERALA) M.S. (OHIO), MIEEE B.Sc. (KERALA)
 - b. Professional Address: Head, Physics Department
University of Botswana,
P/Bag 22, GABORONE, Botswana
 - c. Professional Title: Doctor
 - d. Academic Discipline: Electronics atmospheric Physics and Nuclear Physics
 - e. Main Environmental Interest: Physics of lightning, Design and Development of low cost microprocessor-based instruments for environmental monitoring, pollution
 - f. Current Environmental Activities: Lightning studies low-cost instrumentation for environmental monitoring
 - g. Level of Target groups: General public, college, university, research
 - h. Language spoken and written: English

3. Name: Rohan JAYARATNE

a. Academic Qualifications: BSc (Colombo) PhD (Manchester) FRMet S

b. Professional Address: Dept. of Physics
University of Botswana
Private Bag 0022
GABORONE, Botswana

c. Professional Title: (Lecturer in Physics) Dr.

d. Academic Discipline: Cloud Physics

e. Main Environmental Interest: Atmospheric physics

f. Current Environmental Activities: Atmospheric Electricity, Thunderstorms,
Cloud Physics and Solar radiation.

g. Level of Target group: College/University and Research

h. Language spoken and written: English

4. Name: M.A. JONES

a. Academic Qualifications: BSc (Hons) Zoology

b. Professional Address: Hwange Research Units
P. Bag Dt. 5776
DETE, BOTSWANA

c. Professional Title: Senior Ecologist.

d. Academic Discipline: Ecology

e. Main Environmental Interest: Conservation and Management of wildlife in
both protected and unprotected areas

f. Current Environmental Activities: Research, Park planning and management
in Hwange National Park Extension Service provided to neighbouring
communities and other government departments.

g. Level of Target group: General Public, College/University and Research

h. Language spoken and written: English

5. Name: Eduardo MARTINS

a. Academic Qualifications: Ph.D (Lund, Sweden)

b. Professional Address: Dept. of Chemistry of University of Botswana
Aud F Analytisk Kemi, Lundsuniversitet,
Sweden

c. Professional Title: Lecturer

- d. Academic Discipline: Analytical Chemistry
 - e. Main Environmental Interest: Freshwater chemistry, metals, metal specialization
 - f. Current Environmental Activities: -
 - g. Level of Target group: College/University and Research
 - h. Language spoken and written: Swedish, French, English, Portuguese and Spanish
6. Name: Gerald Musoke SAWULA
- a. Academic Qualifications: B. Sc(Hons.) (Nairobi) M.Sc. Ph. D. (Bristol U.K).
 - b. Professional Address: Dept. of Chemistry, University of Botswana
Private Bag 0022, Gaborone, Botswana
 - c. Professional Title: Lecturer
 - d. Academic Discipline: Analytical Chemistry
 - e. Main Environmental Interest: Analytical methodology for determination of environmental pollutants. Water and wastewater analysis. Air and water pollution surveillance.
 - f. Current Environmental Activities: Reservoir and borehole water analysis. Development of methodology for detection of sulphur dioxide in air. Planning of project on characterisation of water quality in the Okavango Delta System, Botswana.
 - g. Level of Target group: College/University and Research.
 - h. Language spoken and written: Luganda, English, Swahili
 - i. Other relevant information: Formerly Head of Water Resources Research Unit and leader of the Unit's Environmental Research Programme at the National Council for Scientific Research, Lusaka, Zambia.
7. Name: Christopher WILKINSON
- a. Academic Qualifications: B Sc (Special Honours), ARCS, Ph.D. MI Biol.
 - b. Professional Address: University of Botswana
Department of Biology
Private Bag 0022
GABORONE, BOTSWANA
 - c. Professional Title: Professor
 - d. Academic Discipline: Biology
 - e. Main Environmental Interest: Ecology; Applied Entomology; Biogeography, Conservation.

- f. Current Environmental Activities: Research on Man/Animal/Plant inter-relationships; Man's influence on the environment.
- g. Level of Target group: General Public, College/University and Research.
- h. Language spoken and written: English, Dutch, Some German and French

BURKINA FASO

- 1. Name: Mr. Joseph Paul OKANG
 - a. Academic Qualifications: B.Sc. (Engineering), M.Sc., Ph.D., FGIS.
 - b. Professional Address: Centre Régional de Télédétection
B.P. 1762, Ouagadougou, Burkina Faso.
 - c. Professional Title: Director of Training.
 - d. Academic Discipline: Geodetic Science (Photogrammetry & Remote Sensing)
 - e. Main Environmental Interest
Monitoring the environment from satellite images and aerial photographs.
 - f. Current Environmental Activities:
Teaching and supervision of trainees in applications of remote sensing techniques in the earth sciences including studies of floods, bushfires, erosion, etc.
 - g. Level of Target group(s):
Graduates mainly in the earth sciences working for their Governments.
 - h. Language(s) spoken and written: English, Ga.

- 2. Name: Mr. Jacques PARNOT
 - a. Academic Qualifications:
"Diplôme d'Etudes Approfondies" in Soil Science; "Maîtrise" in Geology.
 - b. Professional Address: Centre Régional de Télédétection (CRTO)
B.P. 1762 Ouagadougou, Burkina Faso.
 - c. Professional Title: Director of Users' Assistance Service.
 - d. Academic Discipline: Remote Sensing.
 - e. Main Environmental Interest:
Inventory and monitoring of natural resources (soil, vegetation, water), study of degradation processes (erosion, desertification).
 - f. Current Environmental Activities:
Training, information, studies for projects or development programs, cooperation with research institutes.

- g. Level of Target group(s): High School/Vocational, College/University, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: French, English.
- i. Other Relevant Information:
Training includes CRTO's regular courses in remote sensing and applications (9 months sessions). Conferences in University or high schools and training seminar in or out of CRTO.

3. Name: Nouh Ahmadou SOW

- a. Academic Qualifications: Ingénieur Agropastoraliste (Rangeland Manager) (Mali and U.S.A) Certificate in Soil Survey, Diploma in Rural Survey, M.Sc. Degree in Rural Survey and Range Ecology (1981) (ITC, The Netherlands)
- b. Professional Address: Direction Assistance aux Utilisateurs (D.A.U) C.R.T.O, B.P. 1762, OUGADOGO, Burkina Faso.
- c. Professional Title: Expert Agropastoraliste (Rangeland Expert)
- d. Academic Discipline: Agriculture and Range Science and Forage Production
- e. Main Environmental Interest: Rangeland and Desertification.
- f. Current Environmental activities: Project studies on land use and grazing (rangelands) in Burkina Faso, Tapoa (East Burkina), Mouhoun (North West Burkina), Kassou/Yako (Central Burkina)
- g. Level of Target group: College/University and Research
- h. Language spoken and written: French, English (Thesis M.Sc. Written in English at I.T.C., Enschede, the Netherlands)

EGYPT

- 1. Name: Mr. Fouad Zaki ABDEL-LATIF
- a. Academic Qualifications: B.Sc (Agriculture).
- b. Professional Address: 95 Haron Rashid Street - Heliopolis - Cairo, Egypt.
- c. Professional Title: Manager.
- d. Academic Discipline: Agricultural planning.
- e. Main Environmental Interest: Planning.
- f. Current Environmental Activities
Feasibility studies of different local environmental projects.
- g. Level of Target group(s): General Public.

- h. Language(s) spoken and written: Arabic and English.
- i. Other relevant Information
Socio-economic experience for 5 years with FAO.
2. Name: Ramadan Mohamed Abdallah AWADALLAH.
- a. Academic Qualifications: B.Sc., M.Sc. Ph.D).
- b. Professional Address: Faculty of Science, Aswan African University
ASWAN EGYPT.
- c. Professional Title: Professor of Analytical and Inorganic Chemistry, and
Vice Dean, Faculty of Science, Aswan.
- d. Academic Discipline: Supervising research in environmental and
analytical chemistry, teaching for undergraduate and postgraduate studies.
- e. Main Environmental Interest: Study the trace elements in river Nile.
High Dam lake and drinking waters, sand and sediments of Aswan High Dam
lake, crops, vegetables, medicinal plants, blood and food.
- f. Current Environmental Activities: Ecological and environmental studies on
Allaqi area, River Nile and Aswan High Dam (macro, micro, trace and
ultratrace elements).
- g. Level of Target groups: College/University and research
- h. Language spoken and written: English and French, Arabic
- i. Other Relevant information: Biological activity studies on using metal
coordination compounds as bactericides and fungicides, or Antimicrobials,
in general.
3. Name: Prof. Dr. Ahmed Esmat BELAL
- a. Academic Qualifications: Ph.D in Physics and Mathematics from Leningrad
State University.
- b. Professional Address: Faculty of Science, Aswan Egypt.
- c. Professional Title: Deputy Vice President of Aswan Branch, Assiut
University and Dean of Faculty of Science.
- d. Academic Discipline: Photovoltaic and photoconductivity.
- e. Main Environmental Interest: Energy, Conservation and Pollution.
- f. Current Environmental Activities: Teaching in the University in
conservation areas as a Director of Aswan Branch of Environmental Agency
and held workshops and seminars on the environmental problems.
- g. Level of Target groups: General Public, College/University and Research
- h. Language spoken and written: Arabic, English and Russian.

4. Name: Sayed Mohamed Nour ELDIN

a. Academic Qualifications: B.Sc. M.SC.

b. Professional Address: Faculty of Science
Aswan Africa University
Aswan, Egypt

c. Professional Title: Assistant Lecturer.

d. Academic Discipline: Teaching and Research.

e. Main Environmental Interest:
Environmental Chemistry.

f. Current Environmental Activities:
Study of the trace elements in the sediments of the High Dam Lake (Aswan (Egypt))

g. Level of Target group(s): College/University & Research.

h. Language(s) spoken and written: Arabic, English, .

5. Name: Prof. Dr. Mohamed Wagdi Abdi EL-HAMID

a. Academic Qualifications: B.Sc. (Ag., Soil Science), M.Sc. Ph.D. (Soil Science and Agric. Chem.).

b. Professional Address: Institute of Efficient Productivity
Zagazig University
Egypt

c. Professional Title: Vice-Dean.

d. Academic Discipline: Soil science with special interest in soil and water management in arid and semi-arid regions.

e. Main Environmental Interest: Soil erosion, conservation measures, management practices in arid regions, desertification, water resources management.

f. Current Environmental Activities:
Teaching and conducting research work, leading projects on soil and water management, re-use of irrigation water and water and soil pollution.

g. Level of Target group(s): College/University & Research.

h. Language(s) spoken and written: Arabic, English.

6. Name: Mohamed EL-RAEY

a. Academic Qualifications: Ph.D.

b. Professional Address: Dept. of Environmental Studies
Inst. of Graduate Studies and Research
163 El-Horreya Ave
P.O. Box 832
Alexandria, Egypt

c. Professional Title: Prof. and Head of Dept

d. Academic Discipline: Space Physics and Remote sensing.

e. Main Environmental Interest: Environmental Modelling, Environmental Impact Assessment, Remote Sensing.

f. Current Environmental Activities:
Teaching and Research in the above topics.

g. Level of Target group(s): General Public, Research.

h. Language(s) spoken and written: Arabic, English.

7. Name: Shedid Mohamed GABR

a. Academic Qualifications:
M.Sc. Botany (Ecology), 1987, Faculty of Science, Botany Dept., Assiut Univ. Aswan Branch.

b. Professional Address: Botany Dept. Faculty of Science
ASWAN.

c. Professional Title: Assistant Lecturer, Botany Dept. Faculty of Science, Aswan.

d. Academic Discipline: Research and Teaching.

e. Main Environmental Interest:
Desert development and conservation.

f. Current Environmental Activities:
Studying the Egyptian Desert and increasing its productivity.

g. Level of Target group(s): College/University & Research.

h. Language(s) spoken and written: English and Arabic.

8. Name: Prof. Dr. Samir I. GHABBOUR
- a. Academic Qualifications: Diploma Education & Psychology 1955, B.Sc. 1954, M.Sc. 1964, Ph.D., Zoology (Ecology) 1971.
- b. Professional Address: Dept. of Natural Resources
Institute of African Research and Studies
Cairo University, 12613, Giza, Egypt.
- c. Professional Title: Professor, Animal Ecology - Soil Biology.
- d. Academic Discipline: Animal Ecology (Soil Fauna).
- e. Main Environmental Interest:
Conservation, Ecosystem Management, Land Reclamation, Desertification.
- f. Current Environmental Activities:
Effect of land use on soil Fauna, Environmental characterization of sites, Ecology of Pest Invasions, etc.
- g. Level of Target group(s):
General Public, College/University, Research and Pastoralists.
- h. Language(s) spoken and written: Arabic, English and French.
- i. Other Relevant Information: Winner of Kuwait Prize for Environmental Sciences 1985 (with Prof. M. Ayyad) 1985.
9. Name: Mustafa Mohammed KHOGALI
- a. Academic Qualifications: Ph.D. (Geography), Diploma in Education
Diploma in Population Geography.
- b. Professional Address: (Temporary) Faculty of Education,
P.O. Box 344, MADINA, SAUDI ARABIA.
- c. Professional Title: Department Prof. Dr. - Chairman, Social Science.
- d. Academic Discipline: Geography.
- e. Main Environmental Interest:
Land Degradation - Desertification Population and Resources.
- f. Current Environmental Activities:
Environmental Education and Desertification - Population and Resources .
- g. Level of Target group(s):
High School/Vocational, College/University, Research and farmers,
pastoralists etc
- h. Language(s) spoken and written: Arabic and English.
- i. Other Relevant Information: On secondment basis from Sudan to Saudi Arabia.

10. Name: Dr. Haroun Aly El-Sayed MADKOOR
- a. Academic Qualifications:
Ph.D.(Physics) and Lecturer in Solid State Physics.
 - b. Professional Address: Aswan Faculty of Science Physics Department.
 - c. Professional Title: Lecturer Physics Department Aswan - Faculty of Science Egypt.
 - d. Academic Discipline: Research and teaching solid state physics.
 - e. Main Environmental Interest:
Studies on renewable energy, solar energy, energy from wind and biogas.
 - f. Current Environmental Activities:
Studies on Renewable energy in Alaki projects.
 - g. Level of Target group(s): College/University and Research.
 - h. Language(s) spoken and written: English and Arabic.
11. Name: Ali Mohamed M. MAGDI
- a. Academic Qualifications:
B. Sc. (Botany) 1982 M. Sc. (Ecology) 1987 Faculty of Science, Botany Dept Assiut Univ. Aswan.
 - b. Professional Address: Faculty of Science, Botany Dept., Aswan, Egypt.
 - c. Professional Title: Assistant Lecturer, Botany Dept., Faculty of Science.
 - d. Academic Discipline: Research and teaching.
 - e. Main Environmental Interest:
Ecophysiological Studies on the local environment and conservation.
 - f. Current Environmental Activities:
Ecophysiological studies on the aquatic macrophytes in the Upper Egypt.
 - g. Level of Target group(s): College/University and Research.
 - h. Language(s) spoken and written: English and German.
12. Name: Dr. Hassan El-Amin MOHAMMAD
- a. Academic Qualifications: Ph. D (Geology), Assistant Prof.
 - b. Professional Address: Geology Dept., Faculty of Sciences Aswan, Egypt.
 - c. Professional Title: Assistant Prof., Geology (Minerals and Rocks) .

d. Academic Discipline:

Field Geological/Mapping (Regional and Detailed)
Nuclear geology - Remote Sensing
Mineral Assessment
Geochemical prospection and interpretation.

Main Environmental Interest:

Geology, Geochemistry, Economic Geology.

f. Current Environmental Activities:

Desert Development Programmes.

g. Level of Target group(s): College/University and Research.

h. Language(s) spoken and written: Arabic and English.

i. Other Relevant Information:

Wide experience in field mapping, Petrographical studies, Remote Sensing, Geochemistry Data Interpretation, Mineral prospecting, etc.

13. Name: Prof. Mostafa Hassan MOSTAFA

a. Academic Qualifications: Ph.D.

b. Professional Address: Dept. of Environmental Studies
Inst. of Graduate Studies and Research
Alexandria University, 163 El-Horreya Ave.
P.O. B 832, Alexandria, Egypt.

c. Professional Title: Prof. of Environmental Biochemistry and
Carcinogenesis and Vice Dean.

d. Academic Discipline: Environmental Biochemistry (Research and teaching).

e. Main Environmental Interest:

1. Environmental Carcinogenesis.
2. Environmental Toxicology.

f. Current Environmental Activities:

1. Research interests concern environmental causes of cancer, how environmental factors interact to influence cancer risk.

g. Level of Target group(s):

General Public, Elementary School, High School/Vocational,
College/University, Research, & Other (e.g. farmers, pastoralists).

h. Language(s) spoken and written: English and Arabic.

14. Name: Prof. Dr. F.T. ORABY

a. Academic Qualifications: B. Sc. (Ag.), Dip. Agric. M. Sc. Ph. D.
(Agronomy).

b. Professional Address: Institute of Efficient Productivity Zagazig
University; Egypt.

- c. Professional Title: Dean.
- d. Academic Discipline: Agronomy with special interest in plant breeding, crop production
- e. Main Environmental Interest: tropical crops, cereals, oil crops in desert soils, plant breeding for drought and salinity resistance.
- f. Current Environmental Activities: Teaching, conducting research work in the field of agronomy, supervising post-graduate students, leading national projects for high yielding varieties of important crops.
- g. Level of Target group(s): College/University, Research and other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: Arabic, English, Hungarina.

15. Name: Emile F. SHENODA

- a. Academic Qualifications: B.A 1955, Dip. of Educ. 1957, M/A. (Educ.) 1966, Ph.D. 1973.
- b. Professional Address: Faculty of Education, Mansoura University, Mansoura, Egypt.
- c. Professional Title: Professor.
- d. Academic Discipline: Environmental Management.
- e. Main Environmental Interest:
 - 1. Environmental Management.
- f. Current Environmental Activities: Courses: Diploma
Theses Masters
Ph.D.
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English and Arabic.
- i. Other Relevant Information: Contributed and participated in many workshops on Youth and the Environment.

16. Name: Mohamed E. SOLTAN

- a. Academic Qualifications: B.Sc. M.Sc.
- b. Professional Address: Faculty of Science, Aswan African University, Egypt.
- c. Professional Title: Assistant Lecturer
- d. Academic Discipline: Teaching and Research.

- e. Main Environmental Interest:
Environmental Chemistry
- f. Current Environmental Activities: Study of Water Pollution of the River Nile
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English and Arabic.

17. Name: Dr. Irina SPRINGUEL

- a. Academic Qualifications: B.Sc. (Leningrad State University) 1966 M.Sc. (Assiut University) 1974, Ph.D. (Faculty of Science in Aswan) 1981.
- b. Professional Address: Botany Dept., Faculty of Science, Aswan, Egypt.
- c. Professional Title: Assistant Prof., Head of Botany Dept.
- d. Academic Discipline: Plant Ecology, Geobotany, Plant Geography.
- e. Main Environmental Interest:
Desert Ecosystems, Conservation. Sustained Utilisation of Natural Resources.
- f. Current Environmental Activities: Teaching in University, Work in conservation area (First Cataract Islands), Work in the Project on Sustainable Development of Wadi Allaqi.
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English, Russian, Arabic (spoken).

ETHIOPIA

- 1. Name: Mr. Mulugeta ZELEKE
- a. Academic Qualifications: B.Sc. in Agricultural Engineering,
M.Sc. in Soil Survey for erosion survey.
- b. Professional Address: Community Forest & Soil Conservation Dept.
Ministry of Agriculture, Box 1034, Addis Ababa, Ethiopia
- c. Professional Title: Head of Soil Conservation Division.
- d. Academic Discipline: Agricultural Engineering, Soil Survey for erosion survey and conservation planning purpose.
- e. Main Environmental Interest:
Soil erosion survey, erosion, problem identification assessment and analysis, conservation measures, identification and planning, impact assessment of conservation measures with special attention on intensive peasant agricultural lands.

- f. Current Environmental Activities:
Conservation programme technical adviser in the nation wide programme, supervise and give the technical guidance in the watershed soil conservation development programme. Assist the physical conservation measure with afforestation and rehabilitation of degraded lands etc.
- g. Level of Target group(s):
General Public, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English.
- i. Level of Target group(s):
General Public, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English.

GHANA

1. Name: Mr. Yaw Nsonwah ACHEAMPONG
- a. Academic Qualifications: M.Sc. (Chemical Engineering)
- b. Professional Address: Dept. of Chemical Engineering
University of Science and Technology
KUMASI, GHANA
- b. Professional Title: Lecturer
- d. Academic Discipline: Chemical Engineering (Refractory and Glass Engineering)
- e. Main Environmental Interest:
Industrial and Environmental pollution control.
- f. Current Environmental Activities:
Treatment of Industrial wastes
- g. Level of Target group(s):
General Public, College/University, Research .
- h. Language(s) spoken and written: Russian, English and TWI.
- i. Other Relevant Information: Member, Ghana Science Association;
Member Ghana Animal Science Association; Member, Energy Research Group (E.R.G) Ghana.
2. Name: Mr. Crescence ADJIMAH
- a. Academic Qualifications: B.Sc. (Hons, M.Sc., Dr. rer nat.).
- Professional Address:
Institute of Mining and Mineral Engineering
U.S.T. KUMASI GHANA

- b. Professional Title: Lecturer.
- c. Academic Discipline: Mining Geology
- d. Main Environmental Interest: Mineral exploration, especially the search for gold in Archean Greenstone shield terranes.
- e. Current Environmental Activities:
Gold mineralization in the Birimian Rocks of Ghana with particular reference to the prestea Gold-Belt of Ghana.
- f. Level of Target group(s): College/University and Research.
- g. Language(s) spoken and written: German and English.
- h. Other Relevant Information: None

3. Name: Sampson Kwaku AGODZO

- a. Academic Qualifications: B.Sc. (Agric. Eng.); MSc (Soil and Water Eng.).

Professional Address:

Agricultural Engineering Department,
University of Science and Technology
KUMASI Ghana

- b. Professional Title: Agricultural Engineer.
- c. Academic Discipline: Soil and Water Engineering
- d. Main Environmental Interest: Irrigation, water management, soil and water conservation.
- e. Current Environmental Activities:
 1. Short course in environmentally sound management of water resources organised by UNEP/CEFIGRE, Arusha, 2-20 Oct. 1987.
 2. Prepared Workshop training manual on methods and techniques of irrigation for the African institute for higher technical training and research, Nairobi Oct/Nov 1987.
 3. Research in environmental management of a selected irrigation project in Ghana.
 4. Soil and water management.
- f. Level of Target group(s): College/University and Research.
- g. Language(s) spoken and written: French and English (Ewe Mother Tongue).
- h. Other Relevant Information: Pollution caused by agricultural activity such as the use of fertilizers and pesticides is also a main research interest.

4. Name: Kwasi Osei AGYEMAN

a. Academic Qualifications: B.Sc. (Hons) Development Planning

MPhil Development Studies

MSc Resource Assessment for Development Planning.

Professional Address:

Department of Planning

Faculty of Environmental and Development Studies, U.S.T

KUMASI, GHANA

b. Professional Title: Lecturer in Resource Planning

c. Academic Discipline: Natural Resource Assessment Techniques.

d. Main Environmental Interest: The Natural Environment.

Maintenance of ecological balance in the utilization of natural resources for development.

e. Current Environmental Activities:

Natural resource inventorization, utilization and control.

f. Level of Target group(s): College/University and Research.

g. Language(s) spoken and written: English.

h. Other Relevant Information: Preparing research papers on effective mobilization of natural resources under a district development management strategy and land acquisition policies and land resource development in Ghana.

5. Name: Dr. G.T. AGYEPONG

a. Academic Qualifications: B.A. M.Sc. Ph.D.

Professional Address:

Department of Geography and Resource Development

University of Ghana, Legon.

b. Professional Title: Senior Lecturer

c. Academic Discipline: Geography.

d. Main Environmental Interest:

(a) Land Degradation.

(b) Environment and Land use Planning at Community and Farm Levels.

(c) Land Resource Information System Development

(d) Remote Sensing applications in resources and Environmental Planning

e. Current Environmental Activities:

(a) Compilation of a resource survey directory of Ghana.

(b) Research into the informal knowledge of the environmental indicators of land degradation

(c) Resource person: Draft Science and Technology Plan of the CSIR, Ghana.

(d) Resource Person: Environmental Action Plan of EPC, Ghana.

- f. Level of Target group(s): College/University and Research Other (e.g. farmers, pastoralists).
- g. Language(s) spoken and written: English.
6. Name: Prof. E.H. AMONOO-NEIZER
- a. Academic Qualifications:
BSc. PhD (London).
- b. Professional Address: Department of Chemistry
University of Science and Technology
Kumasi, Ghana.
- c. Professional Title: Professor and Head.
- d. Academic Discipline: Chemistry.
- e. Main Environmental Interest:
Control of Environmental Health Hazards.
- f. Current Environmental Activities:
a. Monitoring and Evaluating Airborne Particles.
b. Determination of Arsenic Pollution in air foods, vegetation and water around mining areas.
c. Water Quality and Pollution Survey of land waters:
d. Study of goitrogenic parameters in an endemic region.
- g. Level of Target group(s):
General public, College/University, Research & other (e.g. miners).
- h. Language(s) spoken and written: English.
- i. Other Relevant Information:
None.
7. Name: Dr. Percy Mark COFIE
- a. Academic Qualifications: M.Sc. (Mining Geology),
Ph.D. (Geology and Mineralogy)
- b. Professional Address: Institute of Mining and Mineral Engineering
University of Science and Technology
KUMASI.
- c. Professional Title: Mine Geologist (Lecturer).
- d. Academic Discipline: Stratigraphy, mineralogy, basic mineral science.
- e. Main Environmental Interest: Sedimentary Environment.
- f. Current Environmental Activities:
Physiographic setting of environment by relations of land, sea, stream, etc.
- g. Level of Target group(s): Research.

h. Language(s) spoken and written:
English.

8. Name: Nicholas Kwasi KUMAPLEY

a. Academic Qualifications: B.Sc. (Eng) in Civil Engineering; MSc. (Eng);
DIC PhD in Soil Mechanics.

b. Professional Address: School of Engineering,
University of Science and Technology
Kumasi, Ghana.

c. Professional Title: Associate Professor.

d. Academic Discipline: Civil Engineering, Soil Mechanics, Geotechnical
Engineering, Engineering Geology.

e. Main Environmental Interest: Mitigation of the effects of industrial
pollution, particularly of groundwater and surface water resources.

f. Current Environmental Activities:

1. Hydrogeological investigation of the pollution potential of leachates
from waste dumps in Tema and Obuasi .
2. Design of mine tailing dams and waste disposal sites to reduce
pollution impact.

g. Level of Target group(s): General Public, College/University, Research
and Workers.

h. Language(s) spoken and written: English, and French to a limited extent

i. Other relevant information: Actively involved in research and consultancy
in hazardous waste disposal facility design.

9. Name: Peter A NORTEY.

a. Academic Qualifications: B.A. Hons. (Geography), Post-graduate Certificate
in Education, M.A. (Community and Regional Planning, Ph.D. Resource
Development).

b. Professional Address: Dept. of Planning, University of Science and
Technology, Kumasi Ghana

c. Professional Title: Senior Lecturer in Planning

d. Academic Discipline: Development Planning.

e. Main Environmental Interest:

- (a) Environmental and ecological considerations in the development
planning process.
- (b) Methods of estimating and mitigating the adverse impact of modern
technology on the environment.
- (c) How to mobilise local communities to adopt environmentally sound
practices in agriculture and forestry.

- f. Current Environmental Activities: Teaching: Natural resource planning and development at the undergraduate and graduate levels. In preparation: A Manual on the Practical Application of Ecological Principles for the Development Planner Concerned with Grassroots Development.
- g. Level of Target group(s): College/University.
- h. Language(s) spoken and written: English.
- i. Other relevant information: The Dept of Planning, UST, Kumasi runs a SPRING programme one of the main thrusts of which is environmentally sound and sustainable development.

10. Name: Prof. E.O. ASARE

- a. Academic Qualifications: B.Sc. (Lond), M.Sc. (Arizona).
Ph.D (Wales, Aberystwyth).
- b. Professional Address: Institute of Renewable Natural Resources
University of Science & Technology
Kumasi, Ghana.
- c. Professional Title: Professor and Director.
- d. Academic Discipline: Agriculture - Pasture Agronomy & Range Management.
- e. Main Environmental Interest:
 - 1. Management & Utilization of the Grasslands of Ghana (Range Ecology Management).
 - 2. Fodder Production (Pasture Agronomy).
 - 3. Agroforestry.
- f. Current Environmental Activities:
 - 1. Introduction, establishment and management of multipurpose tree crops with special emphasis on their use as fodder for sheep, goats and cattle.
 - 2. Biomass production in the grasslands of Ghana.
- g. Level of Target group(s):
College/University, Research and Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English.
- i. Other Relevant Information: Member of (1) the Ghana Man and the Biosphere (MAB) Committee, (2) National Committee on Drought and Desertification; (3) National Ecosystems Committee of the Ghana Environmental Protection Council.

11. Name: Mr. Clement DORM-ADZOBU

- a. Academic Qualifications: B.A. 1965, Ph.D. 1969.
- b. Professional Address: Environmental Protection Council, Box M326, Accra.

- c. Professional Title: Director of Programme.
- d. Academic Discipline: Geography.
- e. Main Environmental Interest:
Natural Resource Use, Impact Assessment and Human Settlements.
- f. Current Environmental Activities:
Planning and execution of projects related to deforestation, mining, oil exploration and human settlements.
- g. Level of Target group(s):
General Public, Research and Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English.

12. Name: Mr. Josiah OFORI-BOATENG

- a. Academic Qualifications: Bachelor of Law (London), Barrister-at-Law (Lincoln's Inn), Specialist Environmental Law (Harvard Law School), (Environmental Law Institute, Washington DC).
- b. Professional Address: Ghana School of Law, Box 179, Accra, Ghana.
- c. Professional Title: Director of Legal Education.
- d. Academic Discipline: Environmental Law.
- e. Main Environmental Interest: Water Laws, Air Pollution Laws, General Environmental Protection Laws, Municipal and International.
- f. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English.
- i. Other Relevant Information:
Member of International Juridical Organisation.
Member of International Council of Environmental Law.

13. Name: Dr. Patrick O. OHADIKE

- a. Academic Qualifications: B.A (Hons); Ph.D.
- b. Professional Address: Regional Institute for Population Studies
Box 96, Legon, Ghana.
- c. Professional Title: Demographer; Director.
- d. Academic Discipline: Sociology, Economics and Demography.
- e. Main Environmental Interest: Human settlements, shelter and the growth of slums; shelter deterioration and urbanization and rural exodus.
- f. Current Environmental Activities:
Essentially training and research in the areas indicated above.

g. Level of Target group(s): College/University and Research.

h. Language(s) spoken and written: English and French.

14. Name: Dr. Daniel Kwame OFORI

a. Academic Qualifications: Doctor of Philosophy in Public Health Engineering; Master of Science in Public Health Engineering; Diploma of Imperial College in Public Health Engineering; Bachelor of Science in Chemical Technology.

b. Professional Address: Department of Civil Engineering
University of Science and Technology
Kumasi Ghana

c. Professional Title: Engineer.

d. Academic Discipline: Public Health Engineering.

e. Main Environmental Interest: Environmental pollution particularly from industrial sources, wastewater treatment technology, water treatment and sanitation.

f. Current Environmental Activities:

a. Studies on environmental pollution from industrial sources in Ghana

b. Development of smallscale systems for the removal of iron and manganese from groundwaters.

c. Training for public health inspectors in environmental health technology.

d. Teaching environmental quality engineering to undergraduate and postgraduate students.

g. Level of Target group(s): College/University, Research and Industrialists.

h. Language(s) spoken and written: English.

i. Other Relevant Information:

Co-ordinator of the Diploma Course in Environmental Health Technology for Public Health Inspectors.

Active participation in the organisation of workshops on the environment e.g. Resource Person for Workshop on Waste Management held in Accra, Ghana, in November 1987 and Workshop on Rural Water Supply held in Kumasi, Ghana in January 1988.

15. Name: John OWUSU-ADDO

a. Academic Qualifications: DIP, ARCH, RIBA, FGIA, cert. in Trop Arch (AA London)

b. Professional Address: Department of architecture
University of Science and Technology.
Kumasi, Ghana

c. Professional Title: Architect/Professor.

- d. Academic Discipline: Architecture
- e. Main Environmental Interest:
Architecture, Urban and rural design.
- f. Current Environmental Activities: Directing architectural education in U.S.T. Kumasi, Ghana and IMO State University, Okigwe, Nigeria and practising architecture.
- g. Level of Target group(s): General Public, College/University & Research.
- h. Language(s) spoken and written: English and Akan (Ghanaian language).
- i. Other Relevant Information: Was chairman of Commonwealth Board of Architectural Education 1983 - 1986, and Foundation Chairman of Board of Education of the Africa Union of Architects - up to 1985.

16. Name: Dr. Joseph H. PRAH

- a. Academic Qualifications: B.Sc. (Legon), M.Sc. (Essex) M Phil (London), D.I.C. PhD (Suny).
- b. Professional Address: Physics Dept., University of Cape Coast
Ghana, West Africa.
- c. Professional Title: Visiting Senior Lecturers.
- d. Academic Discipline: Physics.
- e. Main Environmental Interest:
Non-conventional energy sources.
- f. Current Environmental Activities:
Variation of solar radiation intensity with time of day and year.
- g. Level of Target group(s):
High School/Vocational, College/University and Research.
- h. Language(s) spoken and written: English.

17. Name: Dr. Semion James QUASHIE-SAM

- a. Academic Qualifications: Ph.D. Crop Science, University of Guelph (Canada); M.Sc. Crop Physiology (University of Ghana); B.Sc. Agriculture (University of Ghana). Certificates in: Beekeeping, Rhizobium Technology, and Agroforestry.
- b. Professional Address: Institute of Renewable Natural Resources
University of Science & Technology, Kumasi, Ghana.
- c. Professional Title: Lecturer.
- d. Academic Discipline: Agronomy/Agroforestry.

- e. Main Environmental Interest: Degradation of crop lands leading to shortages of food, fuelwood, fodder, and animal feed. Alternative systems for farmers to stop decline of the quality of the environment, forest areas and Southern Savannah of Ghana and Northern Savannah, and tropics in general.
- f. Current Environmental Activities:
Research in agroforestry systems.
Alley cropping with various tree species.
Multipurpose trees.

Silvipastoral systems with oil palm.
Fuel-wood plantations.
Agroforestry in cocoa plantations.
Short courses in agroforestry to extension officers.
- g. Level of Target group(s): General Public, College/University, Research, Farmers and Extension Officers.
- h. Language(s) spoken and written: English, (Ga, Fanti)
- i. Other Relevant Information: Have taken courses in Animal Science (Production). Certificate in Beekeeping which would be relevant in agroforestry involved in aquaculture research; taken course in rhizobium technology and agroforestry. Involved in studies in Upper and Ashanti Regions of Ghana.

18. Name: Dr. Steve SOBOTIE

- a. Academic Qualifications: B.Sc., M.Sc. Ph.D.
- b. Professional Address: Faculty of Engineering.
University of Science and Technology
Kumasi, Ghana.
- c. Professional Title: Lecturer.

Academic Discipline: Industrial Engineering, (safety engineering and pollution control systems).
- e. Main Environmental Interest:
Control and treatment of industrial wastewater to receiving streams, rivers, etc.
- f. Current Environmental Activities: Use of biological methods to treat industrial wastewater
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English and some French

18. Name: Ms. Eva D. TAGOE

- a. Academic Qualifications: B.A. (Hons) ED. Post-Grad Dip. Pop. Studies, M. Phil (Pop Studies).

- b. Professional Address: Dept. of General & African Studies UST.
Kumasi, Ghana.
 - c. Professional Title: Sectional Head of Geography Section.
 - d. Academic Discipline: Geography, Population Studies.
 - e. Main Environmental Interest:
 - 1. Man and His Environment.
 - f. Current Environmental Activities:
 - 1. Movement of population and the spread of disease with regards to man-made lakes and other irrigation projects. 2. The impact of human activities and the Sahel question.
 - g. Level of Target group(s): Research and other (e.g. farmers, pastoralists and fishermen).
 - h. Language(s) spoken and written: English.
19. Name: Dr. Kwami E. N. TSIDZI
- a. Academic Qualifications: BSc. (Hons) Geology (University of Ghana), MSc. PhD Engineering Geology (University of Newcastle upon Tyne).
 - b. Professional Address: Department of Geological Engineering,
Institute of Mining and Mineral Engineering
University of Science and Technology
Kumasi, GHANA.
 - c. Professional Title: Lecturer.
 - d. Academic Discipline: Engineering Geology.
 - e. Main Environmental Interest:
 - 1. The Role of Engineering Geology in Environmental protection in Ghana.
 - f. Current Environmental Activities:
 - 1. Investigation of the possible causes and environmental impacts of instability in rock/soil slopes and excavations in Ghana.
 - 2. Compilation of data for an engineering geological map of Ghana.
 - g. Level of Target group(s): General Public, College/University and Research.
 - h. Language(s) spoken and written: English.

KENYA

1. Name: Dr. Graphiel Yao AHLIJAH
 - a. Academic Qualifications: B.Sc., M. Phil., Ph.D. (Lond).
Professional Address:
African Regional Organisation for Standardization, Box 57363, Nairobi, Kenya.
 - b. Professional Title: Chemical Officer.
 - c. Academic Discipline: Chemistry.
 - d. Main Environmental Interest: Environmental Standards.
 - e. Current Environmental Activities:
Promotion of standardization in the field of environmental protection and pollution control.
 - f. Level of Target group(s): Research/Standards Engineers.
 - g. Language(s) spoken and written: Ewe and English.
 - h. Other Relevant Information: None

2. Name: Dr. Joel Nyambao BONUKE
 - a. Academic Qualifications:
B.A. (Economics) 1964, Morgan State College.
M.A. (Economics) 1965, Bucknell University.
Ph.D (Indiana State University) 1965-1967.
 - b. Professional Address: Regional Planner
Lake Basin Development Authority
Box 1516, Kisumu, Kenya.
 - c. Professional Title: Regional Planner.
 - d. Academic Discipline: Economic Planning.
 - e. Main Environmental Interest:
Dynamics of Inland Lakes and Rivers on Development.
 - f. Current Environmental Activities:
River and Lake Basin Development Assessment.
Environmental Impact Studies.
Integrated Land Use Statistics.
 - g. Level of Target group(s): General Public.
 - h. Language(s) spoken and written:
Kishwahili, English & Working Knowledge of French.

i. Other Relevant Information: Founder Member of Primary Coop. Society. Experience in Regional Corporation i.e. worked as Principal Economist with former East African Community and the East Africa Development Bank.

3. Name: Dr. S.J. GACIRI

a. Academic Qualifications:

Fil Kand (Uppsala), M.Sc. (Nairobi), Ph.D (Sheffield).

b. Professional Address: Dept. of Geology, University of Nairobi
Box 30197, Nairobi, Kenya.

c. Professional Title: Senior Lecturer.

d. Academic Discipline: Geology (Geochemistry, Hydrochemistry).

e. Main Environmental Interest:

Water Pollution, Mining Contamination and Desertification.

f. Current Environmental Activities:

Teaching at University, research in domestic, industrial and agriculture contamination, and groundwater investigation.

g. Level of Target group(s): General Public, College/University & Research.

h. Language(s) spoken and written: English, Kiswahili.

4. Name: Mr. Bernard Oloo K'OMUDHO

a. Academic Qualifications: B.Sc. (Education), M.Ed. (Teacher Education).

b. Professional Address: National Environment Secretariat
Box 67839, Nairobi, Kenya.

c. Professional Title: Assistant Director (Environmental Protection).

d. Academic Discipline:

Chemistry, Geography, Science Education, Curriculum Development, Environmental Education.

e. Main Environmental Interest:

Promotion of environmental awareness, publication of environmental materials and organising seminars and workshops in environment.

f. Current Environmental Activities:

Lectures to schools and colleges organising activities for World Environment Day, public education in Agricultural Shows, liaison with Ministry of Information, Broadcasting for Public Education in Radio and T.V. and supervising INFOTERRA work. In-pur of environmental dimensions in formal school curriculum.

g. Level of Target group(s): General Public, Elementary School, High School/Vocational, College/University, & Other (e.g. farmers, pastoralists).

h. Language(s) spoken and written: English, Kiswahili.

5. Name: Dr. M. KORIR-KOECH

a. Academic Qualifications: B.Sc. Biology and Environmental Studies, M.Ed. Educational Administration, Ed.D. Science/Environmental Education.

b. Professional Address: Centre for Environmental Education
Kenyatta University, Box 43844, Nairobi, Kenya.

c. Professional Title:
Director & Senior Lecturer in Environmental Education.

d. Academic Discipline:
Science/Environmental Education and Curriculum Development.

e. Main Environmental Interest:
Sustainable Development and Environment; Materials Development in Environmental Education; Teacher Training in EE; Chemicals and Environment; Environmental Impact Assessment.

f. Current Environmental Activities:

1. Teaching undergraduates and post-graduate courses in environmental education and supervising theses and research projects.
2. In the process of compiling annotated bibliography on environmental issues.
3. Writing teaching materials for University and secondary students.

g. Level of Target group(s): General Public, High School/Vocational, College/University and Research.

h. Language(s) spoken and written: English and Kiswahili.

6. Name: Dr. John K. NGANGA

a. Academic Qualifications: B.Sc., M.Sc., Ph.D.

b. Professional Address: Department of Meteorology, University of Nairobi
Box 30197, Nairobi, Kenya.

c. Professional Title: Senior Lecturer.

d. Academic Discipline: Meteorology.

e. Main Environmental Interest:
Meteorology and Climatology of Air Pollution, Air Pollution emission and transport, effects of air pollution on climate. Acidification of rain water and its impact on the environment.

f. Current Environmental Activities:

Air pollution source inventory in Kenyan towns, measurement of particulate pollutants in Nairobi, composition of rain water in Kenya, chemical ozone measurement.

g. Level of Target group(s): General Public, College/University and Research.

h. Language(s) spoken and written: English, Swahili.

i. Other Relevant Information:

Presently involved in monitoring of total ozone using Dobson's ozone spectrophotometer.

7. Name: Prof. Steven G. NJUGUNA

a. Academic Qualifications: B.Sc. (First Class Hons.), M.Sc., Ph.D. Dip. Ed. MI Biol.

b. Professional Address: School of Environmental Studies
Moi University
P.O. Box 3900,
Eldoret, Kenya

c. Professional Title: Associate Professor of Environmental Studies

d. Academic Discipline: Aquatic ecology.

e. Main Environmental Interest:

Pollution effects, Eutrophication, Biological Diversity, Limnology and Wild-life Conservation.

f. Current Environmental Activities:

Aquatic weeds research, eutrophication research, environmental education and training.

g. Level of Target group(s): General Public, College/University and Research.

h. Language(s) spoken and written: English, Swahili.

i. Other Relevant Information:

Involved in environmental impact assessment consultancy.

8. Name: Dr. Isaac Orure NYAMBOK.

a. Academic Qualifications: Fil Kand (Earth Sciences); M.Sc. (Economic Mineral Deposits); Fil Dr. (Petrology - Geochemistry).

b. Professional Address: Department of Geology, University of Nairobi
Box 30197, Nairobi, Kenya.

c. Professional Title: Head of Department.

d. Academic Discipline: Geology with special interest in environmental geology, hydrogeology and geotechnology.

e. Main Environmental Interest:

Earthquakes, geotechnical problems, groundwater pollution, environmental protection (including marine environment) remote sensing and disaster mitigation.

f. Current Environmental Activities:

Geotechnical characteristics for the determination of land use patterns. Dangers posed by volcanic activities (especially gases). Groundwater quality.

g. Level of Target group(s): General Public, College/University and Research.

h. Language(s) spoken and written: English.

9. Name: Dr. Zerubabel M. NYIIRA

a. Academic Qualifications: Ph.D., M.Sc, B.Sc. (Hons).

b. Professional Address:
International Centre of Insect Physiology & Ecology (ICIPE)
Box 30772, Nairobi, Kenya.

c. Professional Title: Senior Principal Research Scientist.

d. Academic Discipline: Pest Management Sciences.

e. Main Environmental Interest: Ecological aspects of pest management. Head of unit responsible for training in this area.

f. Current Environmental Activities:
Training ecologically sound, socially acceptable pest management systems.

g. Level of Target group(s): College/University and Research.

h. Language(s) spoken and written: English, Swahili (can write some French).

i. Other Relevant Information:
Organises training which takes place in Nairobi once every year in July or August in form of International Group Training Course.

10. Name: Dr. Laban OGALLO

a. Academic Qualifications: B.Sc., MSc., Phd.

b. Professional Address: Department of Meteorology University of Nairobi
P.O. Box 30197
NAIROBI, Kenya.

c. Professional Title: Lecturer

d. Academic Discipline: Meteorology.

e. Main Environmental Interest: Climate, Oceans, Renewable natural resources, Climate impacts.

f. Current Environmental Activities: Climate variability over East Africa and their impacts.

g. Level of Target group(s): College/University and Research.

h. Language(s) spoken and written: English.

11. Name: Michael E. SMALLEY
- a. Academic Qualifications: B.Sc. (Hons), Lond., PhD, Lond.
- b. Professional Address: ICIPE.
P.O. Box 30772
NAIROBI, Kenya
- c. Professional Title: Academic Coordinator.
- d. Academic Discipline: Zoology; parasitology.
- e. Main Environmental Interest:
Food production and community health.
- f. Current Environmental Activities: Coordinator Postgraduate Training
Network for Insect Pest Management.
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English.
12. Name: Dr. Mwakio P.TOLE
- a. Academic Qualifications: Ph.D.
- b. Professional Address: School of Environmental Studies
Moi University
Box 3900, Eldoret, Kenya.
- c. Professional Title: Associate Professor
- d. Academic Discipline: Geochemist.
- e. Main Environmental Interest:
1. Teaching Environmental Chemistry (Post-graduate).
 2. Teaching Environmental Geology (Post-graduate).
 3. Carrying out research on Pollution of Aqueous Systems.
- f. Current Environmental Activities:
1. Teaching postgraduate students in Environmental Chemistry.
 2. Teaching postgraduate students in Environmental Geology.
 3. Carrying out research on the effects of Industrial Pollutants on Aqueous Systems.
 4. Carrying out research on the Containment of Radioactive Wastes.
 5. Chemistry of Geothermal Systems.
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English, Swahili, Taita and French.

LIBERIA

1. Name: Dr. George BOTCHIE
 - a. Academic Qualifications: PhD (Regional Planning) University of Ghana Legon, Ghana, Post-doctoral diploma (System Dynamics and Planning) M.I.T., Cambridge, USA.
 - b. Professional Address: Graduate Programme,
Regional Planning University of Liberia
P.O. Box 9020
MONROVIA, Liberia
 - c. Professional Title: Associate Professor and Co-ordinator Regional Planning.
 - d. Academic Discipline: Regional Planning, Environmental Planning and Management.
 - e. Main Environmental Interest:
 1. Environmental planning and management.
 2. Multinational Enterprises and the Environment.
 3. Desertification and ecosystem management
 4. Man and Forest Ecosystem Management (MAB Projects).
 - f. Current Environmental Activities:
Training of students and other professionals and environmental planning and management. Research on multinational enterprises and the environment. Impact of man on forest ecosystems.
 - g. Level of Target group(s): General Public, College/University.
 - h. Language(s) spoken and written: English.
 - i. Other Relevant Information: Active member of MAB Network on forest ecosystems. Collaborated actively with C.E.I (Environmental Management) Geneva on environmental management seminars and research.
-
2. Name: Dr. Franklin Ellis KLU
 - a. Academic Qualifications: B.A (Hons), M.A., Ph.D.
 - b. Professional Address: Dept. of Geography, University of Liberia
Monrovia, Liberia, West Africa.
 - c. Professional Title:
Assistant Professor of Geography & Associate, Faculty of Regional Planning
 - d. Academic Discipline: Geography or Development Planning.
 - e. Main Environmental Interest:
Urban Environmental Pollution, Urban Decay and Slums, Urban Infrastructure and Problems.

- f. Current Environmental Activities: Urban Environmental Management.
- g. Level of Target group(s): General Public, College/University, Research.
- h. Language(s) spoken and written: English and little French.

MALAWI

- 1. Name: Mr. Laban Anderson Chibvunde BWEYA
- a. Academic Qualifications:
B.Sc. (Malawi 1970), Diploma in Soil Surveys (ITC, The Netherlands 1974),
Certificate in Extension Methodology (Israel 1980).
- b. Professional Address:
Ministry of Forestry and Natural Resources, P.Bag 350, Lilongwe 3, Malawi.
- c. Professional Title: Deputy Environmental Coordinator.
- d. Academic Discipline:
Geography & Chemistry, Land Use Planning, Soil Survey, Remote Sensing.
- e. Main Environmental Interest: Soil and Water Conservation, Land Use
Planning and Management, Soil Survey and Remote Sensing.
- f. Current Environmental Activities: Deputy of the National Environmental
Coordinator to assist in coordination of environmental activities in
Malawi. The department is young and we are developing its functions at
national level: conducting seminars for schools, public and technicians,
ensuring inclusion of environmental aspects in development projects and
legislation, encouraging better natural resource management.
- g. Level of Target group(s): General Public, Elementary School, High
School/Vocational, College/University, Research, Other (e.g. farmers,
pastoralists).
- h. Language(s) spoken and written: English
- i. Other Relevant Information: Participated in many seminars on shifting
cultivation, Land Use Planning, environment, remote sensing, extension and
administration since 1972.

MAURITIUS

- 1. Name: Dr. Indurlall FAGOONE
- a. Academic Qualifications:
Licence es Sciences (Paris VI); Maîtrise en Biologie Animale (Paris XI);
Docteur de Spécialité (Paris XI); PostMasters's Marine Science (Univ
Miami, Florida, USA).
- b. Professional Address: University of Mauritius, Réduit, Mauritius.

- c. Professional Title:
i. Associate Professor & Head, Marine Resources.
ii. Adviser to Ministry of Agriculture, Fisheries & Natural Resources in Marine Affairs and Environment.
- d. Academic Discipline: Zoology, Ecology and Biological Oceanography.
- e. Main Environmental Interest:
Marine environment: baseline studies, pollution assessment and monitoring, protection and conservation of corals and reefs, and marine flora and fauna.
- f. Current Environmental Activities:
1. Initiated a B.Sc (Hons) Course in Pure Science, Environmental Studies (EVS); Coordinator of EVS.
2. Teaching general oceanography, marine ecology and environment generally.
3. Research in coastal marine environment.
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English and French.
- i. Other Relevant Information:
Chairman of National Environmental Education Committee; and Member, National Environment Committee.
2. Name: Mr. Camille Pierre FRANCOIS
- a. Academic Qualifications:
B.Sc Land Surveying, M.Sc Highway Engineering, ARICS, MIHT.
- b. Professional Address: University of Mauritius
Réduit, Mauritius.
- c. Professional Title: Lecturer.
- d. Academic Discipline: Surveying, Highway Engineering.
- e. Main Environmental Interest:
Application of Remote Sensing to environmental problems.
- f. Current Environmental Activities:
Lectures to students on environmental studies - a subject on the B.Sc. Pure Science Course. Member of remote sensing group on campus. Presently trying to set up image processing and analysis on a microcomputer.
- g. Level of Target group(s): College/University & Research.
- h. Language(s) spoken and written: English and French.
- i. Other Relevant Information: Lecturer.

3. Name: Prof. G.T.G. MOHAMEDBHAI
- a. Academic Qualifications: B.Sc (Hons) in Civil Engineering (University of Manchester), Ph.D (University of Manchester).
- b. Professional Address: School of Industrial Technology
University of Mauritius, Réduit, Mauritius.
- c. Professional Title: Professor.
- d. Academic Discipline: Civil Engineering.
- e. Main Environmental Interest: In charge of courses in public health engineering and coordinator of research activities in public health engineering.
- f. Current Environmental Activities:
In charge of Regional Diploma in Public Health Engineering sponsored by the CRHS of Tanzania (Arusha).
Coordinator of research team "Physical Resources Planning".
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English and French.

NIGERIA

1. Name: Dr. Ahmadv ABDULKADIR
- a. Academic Qualifications:
B.A. (Hons) Geography, M.Sc., Ph.D.
- b. Professional Address: Department of Geography
Bayero University, PMB 3011,
Kano, Nigeria
- c. Professional Title: Lecturer
- d. Academic Discipline: Geography/Soil Science.
- e. Main Environmental Interest: Soil and water investigations including quality assessment, land degradation, remote sensing application in land resource survey and assessment.
- f. Current Environmental Activities:
Land evaluation for irrigation, soil erosion, impact of dam construction on areas down stream, impact of irrigation practice on soil properties.
- g. Level of Target group(s): College/University, Research, Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English & Yoruba.

i. Other Relevant Information: Member of the following Societies: Nigerian Field Society, Science Association of Nigeria, Freshwater Biological Association, IAEA Fellow (1983/84).

2. Name: Dr. I. F. ADENIYI

a. Academic Qualifications: B.Sc. (Hons.) Zoology (Ife) Ph.D (Hydrobiology) Ife.

b. Professional Address: Dept. of Zoology
Obafemi Awolowo University, Ile-Ife

c. Professional Title: Lecturer in Zoology, Fellow of the Institute of Ecology.

d. Academic Discipline: Limnology, Water, Chemistry and Water Quality, Radio-Ecology.

e. Main Environmental Interest:
Water quality and pollution, biological production and productivity of aquatic environment, environmental radioactivity.

f. Current Environmental Activities:
Acid-Precipitation of free-fall rain, relationship between water chemistry and the distribution of Simulium damnosum in NOCP, Nigeria. Production studies of Opa Reservoir.

g. Level of Target group(s):
General Public, College/University, and Research.

h. Language(s) spoken and written: English.

i. Other Relevant Information: Member of the following Societies: Nigerian Field Society, Science Association of Nigeria, Freshwater Biological Association, IAEA fellow (1983/84).

3. Name: Dr. Modupe Taiwo ADENIYI-ODUBELA

a. Academic Qualifications:
B.Sc. (Special Botany), Ph.D. (Environmental Biology).

b. Professional Address: Ministry of Works and Housing. 24 Keffi St, Lagos
P.O. Box 52542 Falomo, Ikoyi.

c. Professional Title: Chief Scientific Officer.

d. Academic Discipline: B.Sc. (Special Botany), Ph.D.(Environmental Biology).

e. Main Environmental Interest:

1. Environmental Management in General - Public Awareness.
2. Integrated Water Resources Development.

f. Current Environmental Activities:

Head of Environmental and Planning Protection Division in Kaduna State, which activities include Waste Water (industrial and domestic), Hazards and Toxic Wastes disposal, Solid Waste Management (domestic and industrial), Air Pollution, Water Quality, Agricultural Wastes and Pesticide residue and liaison with state (local governments) on environmental matters.

g. Level of Target group(s): General Public, High School/Vocational College/University, Research, & Other (e.g. farmers, pastoralists).

h. Language(s) spoken and written: English and Yaruba

4. Name: Dr. D.A. ADESANYA

a. Academic Qualifications: M. Phil, PhD.

Professional Address:

Faculty of Environmental Design
Obafemi Awolowo University, Ile-Ife

b. Professional Title: Engineer.

c. Academic Discipline: Building Services Engineering and Building Technology

d. Main Environmental Interest: Thermal comfort in buildings, water supply and sewage disposal.

e. Current Environmental Activities:

1. Measurement of air flows in courtyard building designs and monitoring of thermal comfort in traditional and conventional building designs.
2. Monitoring of environmental effects of the effluent discharge from oxidation ponds into streams and agricultural areas.

f. Level of Target group(s): General Public College/University and Research.

g. Language(s) spoken and written: English, Yoruba and Hausa.

h. Other Relevant Information: None

5. Name: Prof. Emmanuel A. ADUAYI

a. Academic Qualifications: B.Sc. (Agric.) Arizona Ste, M.Sc. (Soil Science/Agronomy) Beirut, Dip. Agric. Sc., (Wales) Ph.D. (Soil Science), Nairobi.

Professional Address:

Soil Science Department
Obafemi Awolowo University, Ile Ife.

b. Professional Title: Prof. of Soil Science.

c. Academic Discipline: Soil Fertility and Plant Nutrition, Agronomy.

d. Main Environmental Interest: Residual levels of Mineral Micro-and Macro-nutrient elements e.g. Nitrate, Nitrogen, Sulphur, Copper, Iron, Manganese, Chromium, etc. in agricultural soils and plants.

- e. Current Environmental Activities:
Research in the interaction of micro-and macro-nutrients in soil and plants, with reference to their critical and toxic levels.
- f. Level of Target group(s): College/University, Research and other (e.g. farmers, pastoralists).
- g. Language(s) spoken and written: English, French (written only) Ibo, Ewe (Togo).
- h. Other Relevant Information: Worked on the residual and nutritional effects of copper on coffee in Kenya for over five years.
6. Name: Dr. O.A. AGINYEMIJU
- a. Academic Qualifications: B.Sc. , M.Sc., Ph.D. (Weed Science).
Professional Address:
Dept. of Plant Science Obafemi Awolowo University.
Ile-Ife, Nigeria
- b. Professional Title: Senior Lecturer in Weed Science and Senior Research Fellow, Institute of Ecology, Obafemi Awolowo Univ. Ile-Ife, Nigeria.
- c. Academic Discipline: Agronomy/Weed Science.
- d. Main Environmental Interest: Weed control in aquatic and irrigation systems, use of herbicides.
- e. Current Environmental Activities:
Research on Aquatic weeds and weeds of irrigation systems. Herbicide residue in water and tropical soils.
- f. Level of Target group(s): General Public, College/University and Research.
- g. Language(s) spoken and written: English and Yoruba.
- h. Other Relevant Information: President, Weed Science Society of Nigeria, Member, Weed Science Society of America.
7. Name: Dr. Charles T. AKANBI
- a. Academic Qualifications: B.Sc. University of Ife, 1980, M.Sc. University of Reading 1982, PhD. University of Leeds, 1985 IFST (U.K).
Professional Address:
Department of Food Science & Technology Obafemi Awulowo University,
Ile-Ife, Nigeria.
- b. Professional Title: Lecturer, Department of Food Science and Technology, Research Fellow in Ecology.
- c. Academic Discipline: Food Science and Technology Food Process Engineering Option.
- d. Main Environmental Interest: Food wastewater disposal and treatment: Interaction between foods and equipment surfaces, food storage stability.

- e. Current Environmental Activities:
Food preservation in relation to physical parameters such as humidity and temperature.
- f. Level of Target group(s): General Public College/University and Research.
- g. Language(s) spoken and written: English.
- h. Other Relevant Information: None

8. Name: Dr. Funso A. AKEREDOLU

- a. Academic Qualifications: B.Sc.(Hons) Chem Eng., M.Sc. Plant and Process Design, Ph.D. Chemical.
- b. Professional Address: Department of Chemical Engineering
Obafem Awolowo University
Ile-Ife, Nigeria.
- b. Professional Title: Engineer.
- c. Academic Discipline: Chemical Engineering.
- d. Main Environmental Interest: Air pollution control, industrial pollution control, and urban air pollution monitoring.
- e. Current Environmental Activities:
 - 1. Assessment of ambient total suspended particulate matter, atmospheric deposition rates of particulates in Ile-Ife.
 - 2. Assessment of air pollution levels in two cement works.
 - 3. Participating on the Background Air Pollution, Monitoring Project at AES, Dounsirea, Canada (especially on the real-time measurement of particulate black carbon).
- f. Level of Target group(s): Research.
- g. Language(s) spoken and written: English and some French.
- h. Other Relevant Information: Maintain very good active contact with researchers in the field of air pollution control/monitoring in several laboratories around the world and would like to see a GEMS station sited in Nigeria. I would be willing to collaborate in any way possible.

9. Name: Dr. T.O. AKINLUYI

- a. Academic Qualifications: B.Sc. Microbiology; M.Sc. Microbiology; PhD Microbiology.

Professional Address:
Department of Microbiology,
Obafemi Awolowo Univeristy
Ile-Ife, Nigeria.
- b. Professional Title: Research Fellow, Institute of Ecology and Lecturer, Department of Microbiology.

- c. Academic Discipline: Environmental, Soil and Aquatic Microbiology.
- d. Main Environmental Interest: Environmental, Soil and Aquatic Microbiology.
- e. Current Environmental Activities:
 - 1. The use of solar energy in water purification.
 - 2. Energy generation from waste materials.
 - 3. Biological control of Schistosoma.
 - 4. The role of aquatic plants in water purification.
- f. Level of Target group(s): General Public, College/University and Research.
- g. Language(s) spoken and written: English.
- h. Other Relevant Information: Member of Nigerian Biotechnology Society, Nigerian Society of Microbiologists.

10. Name: Dr. Tonie Victoria I. AKPATA

- a. Academic Qualifications: B.Sc. Botany; M.Sc., Ph.D Biology.
- b. Professional Address: Dept. of Biological Sciences,
University of Lagos, Akoka, Lagos, Nigeria.
- c. Professional Title: Lecturer.
- d. Academic Discipline: Microbiology.
- e. Main Environmental Interest:
Water pollution assessment, monitoring and control
Environmental Impact Assessment (EIA).
- f. Current Environmental Activities:
Teaching courses in Environmental Microbiology at University levels -
B.Sc., M.Sc., Ph.D.
Research (studies & supervision) on (i) bacterial indicators of water
pollution, (ii) Fate of poultry faecal bacteria in the receiving
environment, (iii) Decomposition of chitinous wastes in estuarine
sediments.
Membership of Nigerian National Committee of Man & the Biosphere (MAB), a
UNESCO programme. In subcommittee on (i) Environmental Impact Assessment
seminar, (ii) Strategies for public awareness of pollution impacts.
- g. Level of Target group(s): General Public, College/University and Research.
- h. Language(s) spoken and written:
English, French (little) (GCE 'O' levels in oral and written).
- i. Other Relevant Information:
Attended the International Seminar on Environmental Impact Assessment at
CEMP, Aberdeen University, UK in 1985 (certified).

11. Name: Mr. Emmanuel AMAMOO-OTCHERE

- a. Academic Qualifications: B.A. (Hons.) Geography; PGD (image interpretation ITC-M.Sc.) (Rural land use/land evaluation).
- b. Professional Address: Regional Centre for Training in Aerospace Surveys
PMB 5545, ILE-IFE
- c. Professional Title: Lecturer, Head of Department of Photo Interpretation and Remote Sensing, Research Fellow, Institute of Ecology.
- d. Academic Discipline: Geography - remote sensing application to spatial analysis of land use and land form relationships.
- e. Main Environmental Interest: Land use mapping with satellite images and aerial photographs, relating land use to associated environment data integration for land evaluation, cartographic rendition of results from land evaluation.
- f. Current Environmental Activities:
1. Land use data revision with aerial photos: case study of Dagana Irrigation Project in Senegal River Basin.
 2. Up-dating land use information of plot map for the repartitioning of agricultural research station-Nyankpala in Northern Ghana.
 3. Land sat miss data interpretation for information on (a) Flood plain utilization (b) population and land use changes.
 4. Spot image interpretation for information on (a) Urban expansion and associated environmental changes (b) changing structure of land cover and estimation of forest balance in the humid tropical forest.
 5. Papers on these activities have been presented at the following Conferences: (a) International Symposium on Remote Sensing of Environment, ITC, Enchede in Netherlands (b) International symposium on Remote Sensing of Environment (ERIM) Nairobi. (c) Wili Nordberg Symposium on Remote Sensing: Towards Cartographic Application, Graz, Austria (d) ISPKS Congress in Kyoto.
- g. Level of Target group(s): General Public, College/University and Research.
- h. Language(s) spoken and written: English.
- i. Other Relevant Information:
Co-ordinator-Workshop on Remote Sensing Applications (RECTAS). Have been consultant on UNEP Programmes in Ghana, participating in the Coastal Savannah Productivity Project.

12. Name: Dr. Pius Amaeze ANADU

- a. Academic Qualifications: B.Sc. (Hons), Zoology, University of London;
Ph.D. Zoology, University of Ibadan.
- b. Professional Address: Department of Forestry and Wildlife
University of Benin, PMB 1154, Benin City, Nigeria
- c. Professional Title: Senior Lecturer.

- d. Academic Discipline: Zoology.
- e. Main Environmental Interest: Wildlife Conservation.
- f. Current Environmental Activities:
Ecology and conservation of threatened rainforest mammals, with particular reference to primates and ungulates.
- g. Level of Target group(s): College/University.
- h. Language(s) spoken and written: Igbo and English.
- i. Other Relevant Information:
Member, Nigerian Conservation Foundation and International Primatological Society.

13. Name: Dr. S.E. ANANABA

- a. Academic Qualifications: B.Sc. Diploma Met., M.Sc., PhD.
- b. Professional Address: Department of Geosciences,
Federal University of Technology,
Owerri, Nigeria
- c. Professional Title: Senior Lecturer.
- d. Academic Discipline: Geophysics, Meteorology and Remote Sensing.
- e. Main Environmental Interest: Inventory of natural resources and effect of weather and its excesses on the environment.
- f. Current Environmental Activities:
Application of remote sensing techniques in geophysical, geological and meteorological studies. This includes (1) Inventory of natural resources - mineral, surface and ground water resources (2) Study of the effects of various meteorological variables on the environment, including storm and erosion hazards.

g. Level of Target group(s): General Public, University and Research.

h. Language(s) spoken and written: English.

i. Other Relevant Information:

Have already published the results of Regional Inventory of Mineral and Surface Water Resources in Nigeria as mapped from satellite (LandSat) Imagery.

14. Name: Dr. Esther BALOGH.

a. Academic Qualifications: M.Sc. - Biology and Chemistry; PhD. - Biochemistry and Microbiology.

b. Professional Address: Dept. of Food Science and Technology
Obafemi Awolowo University
Ile-Ife, Nigeria.

c. Professional Title: Senior Research Fellow in Ecology, Senior Lecturer, Department of Food Science & Technology.

d. Academic Discipline: Microbiology: industrial fermentations technology (Applied microbiology/biotechnology).

e. Main Environmental Interest: Industrial/agricultural waste treatment and utilization. Ecology of post-harvest damages of food crops caused by microorganisms. Microbial toxins and food-borne diseases. Food quality control. Biological control of pests. Food plant sanitation.

f. Current Environmental Activities: Cellulolistic waste utilization. Food crop losses in post-harvest handling. Food preservation.

g. Level of Target groups: College/University and research

h. Language spoken and written: Hungarian, English & German

i. Other Relevant information: Associate Editor, Nigerian Food Journal. Council Member, Nigerian Institute of Food Science and Technology (Western Chapter); Consultant in Brewing Technology Training Programme.

15. Name: Mr. Marian Oritsejomi BENKA-COKER

a. Academic Qualifications: B.Sc., M.Sc.

b. Professional Address: Department of Microbiology, Faculty of Science
University of Benin, Benin City, Nigeria.

c. Professional Title: Assistant Lecturer.

d. Academic Discipline: Microbiology (Environmental).

e. Main Environmental Interest:

1. Effects of heavy metals and pathogenic bacteria from/on surface waters.
2. Effects of heavy metals and bacteria of public health significance from crude oil leachates on surface and ground water.

- f. Current Environmental Activities:
Studies on the contamination of soil and groundwater by heavy metal and bacterial leachates from a crude oil waste pit.
- g. Level of Target group(s): General Public, College/University and Research.
- h. Language(s) spoken and written: English.
16. Name: Mr. Nagarajupalli M. DAVID.
- a. Academic Qualifications: B.A., B. Arch. (Hons), Dip. Urb. Des.
- b. Professional Address: Department of Urban and Regional Planning
Anambra State University of Technology,
PMB 01660 ENUGU, Nigeria.
- c. Professional Title: Senior Lecturer.
- d. Academic Discipline: Architecture, Urban Planning and Urban Design.
- e. Main Environmental Interest: The Built-Environment: Its symbiotic relationship with natural environment. Psychological aspects of urban environment. Cultural symbolism, proportions and aesthetic appeal in urban design and architectural design.
- f. Current Environmental Activities: Teaching undergraduate and post-graduate courses in urban planning, urban design and architecture. Writing teaching material for University students. Informal personal discussions with people and planners in authority drawing attention to environmental problems and possible solutions.
- g. Level of Target groups: College/university.
- h. Language spoken and written: English, Hindi, Telugu.
- i. Other Relevant Information: Designed undergraduate and postgraduate programmes in urban and regional planning.
17. Name: Dr. John Ono EDEWOR
- a. Academic Qualifications: B.Sc. Chemical Eng., M.Sc. Petrochemicals, Ph.D. Energy Economics, Certificate of Industrial Management.
- b. Professional Address: Chemical Engineering Dept.
University of Lagos, Akoka, Lagos, Nigeria.
- c. Professional Title: Senior Lecturer in Chemical Engineering.
- d. Academic Discipline:
1. Waste recycling with particular emphasis on conversion of municipal and agricultural wastes to usable matters.
 2. Production of chemicals from "wastes" e.g. seaweed to fertilisers and other chemicals like ammonia.

- e. Main Environmental Interest:
1. Conversion of combustible municipal and agricultural wastes to synthetic oils and gases.
 2. Conversion of same to products other than synthetic oils.
- f. Current Environmental Activities:
1. Production of ammonia, detergents and fertiliser from seaweeds of Nigeria.
 2. Investigating the potential of commercial plants based on cellulose hydrogenation to synthetic oils.
 3. Developing pesticides for farming purposes.
- g. Level of Target group(s):
General Public, Research, & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English.
- i. Other Relevant Information:
Ultimate goal to achieve the construction of a commercial high pressure plant for "wastes" conversions to various useful end-products like liquid fertiliser and synthetic oils.

18. Name: Prof. Patrick N. EGHAREVBA

a. Academic Qualifications: B.Sc., M.Sc., Ph.D.

b. Professional Address: Faculty of Agriculture, University of Benin,
PMB 1154, Benin City, Nigeria.

c. Professional Title: Professor.

d. Academic Discipline: Agronomy, Crop Production and Management.

e. Main Environmental Interest: Environmental Sanitation.

f. Current Environmental Activities:
Engaged in the provision of pipe-borne water, adequate drainage system, sewage disposal system, rural domestic child care and overall health status of communities.

g. Level of Target group(s): General Public.

h. Language(s) spoken and written: English and Edo.

19. Name: Dr. Johnson Adebola EKUNDAYO

a. Academic Qualifications: B.Sc, Ph.D.

b. Professional Address: Dept. of Microbiology, Faculty of Science
University of Benin, Benin City, Nigeria.

c. Professional Title: Professor of Environmental Microbiology and Dean,
Faculty of Science.

d. Academic Discipline: Environmental Microbiology.

- e. Main Environmental Interest
 - 1. Microbiological and physico-chemical quality of water for human consumption and for aquaculture.
 - 2. Effect of oil pollution on water and soil quality and on vegetation.
- f. Current Environmental Interest:
 - 1. Survey of microbiological and physico-chemical qualities of surface and groundwaters of Bendel State of Nigeria.
 - 2. Baseline and post-impact studies of oil-polluted waters and soil of oil-producing delta areas of Nigeria.
 - 3. Training of undergraduate and postgraduate students and staff of water boards and oil companies on water quality analysis.
- g. Level of Target group(s): General Public, College/University, Research.
- h. Language(s) spoken and written: English.
- i. Other Relevant Information:

Have organised short-term courses on water quality assessment for State and Federal Ministries of Environment at the University of Lagos, Nigeria for over ten years and have trained on attachment basis staff from these places.

20. Name: Dr. E.U. ESSIET

- a. Academic Qualifications: B.Sc. (Hons) Plant/Soil Science.
Ph.D (Soil Survey and Land Evaluation).
- b. Professional Address: Department of Geography, Bayero University
PMB 3011, Kano, Nigeria.
- c. Professional Title: Senior Lecturer.
- d. Academic Discipline: Soil Science.
- e. Main Environmental Interest:
 - 1. Impact of Harmattan Dust on Soil Fertility.
 - 2. Irrigation Projects and Effects on Soil Properties.
- f. Current Environmental Activities:

Harmattan Dust deposition and Soil Fertility in Kano Region, Nigeria.
Effects of irrigation on soil and water quality in Southern Kano, Nigeria.
- g. Level of Target Group(s):

College/University & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English.

21. Name: Dr. Olusola A. FAKANKUN

- a. Academic Qualifications: B.Sc. (Hons), Ibadan., M.Sc. Tech.
Manchester, England, Ph.D. Chemistry, Ile-Ife.
- b. Professional Address: Department of Chemistry
Obafemi Awolowo University
Ile-Ife, Nigeria

- c. Professional Title:
Research Fellow, Institute of Ecology and Lecturer in Chemistry, Obafemi Awolowo University, Ile-Ife.
 - d. Academic Discipline: Analytical Chemistry (with bias for Environmental Pollution).
 - e. Main Environmental Interest:
Environmental Pollution Monitoring
 - f. Current Environmental Activities:
Analysis of priority pollutants in environmental samples.
Characterisation of sewage effluents from the primary oxidation pond of the University.
 - g. Level of Target group(s):
General Public, College/University & Research.
 - h. Language(s) spoken and written: English.
 - i. Other Relevant Information: Member of Research Group to Nigerian National Petroleum Corporation.
22. Name: Prof. A.M.A. IMEVBORE
- a. Academic Qualifications: B.Sc. (Hons.) Ph.D. London, FAS.
 - b. Professional Address: Institute of Ecology Obafemi Awolowo University Ile-Ife, Nigeria.
 - c. Professional Title: Research Professor & Director, Institute of Ecology, Professor of Zoology, Fellow of the Academy of Sciences (Nigeria).
 - d. Academic Discipline: Hydrology, General Ecology, Environmental Management.
 - e. Main Environmental Interest:
 1. Dam & Large Fluvial Works Feasibility Studies.
 2. Environmental Impact Assessment of Development Projects.
 3. Pollution Monitoring for Air, Land and Water.
 4. Disease Vector Implications of Agricultural Projects.
 5. Toxicity and Impacts of Hazardous Substances.
 - f. Current Environmental Activities:
 1. Feasibility of Hydro-electric Project Scheme at Asaba.
 2. Toxicity of Crude Oil and Dispersants
 3. Environmental Considerations of Irrigation Projects.
 4. Environmental Management, e.g., Koko Toxic Waste Impact and Management.
 - g. Level of Target group: General Public, College/University Research & Other (e.g. farmers pastoralists).
 - h. Language spoken and written: English
 - i. Other Relevant Information: Member of WHO/FAO/UNEP PEEM, ICOLD, ICID.

23. Name: Dr. A.O. ISICHEI
- a. Academic Qualifications: B.Sc., Ph.D.
 - b. Professional Address: Botany Department, Obafemi Awolowo University
Ile-Ife, Nigeria.
 - c. Professional Title: Head, Botany Department.
 - d. Academic Discipline: Ecology.
 - e. Main Environmental Interest: Savanna Ecology, Forest Ecology.
 - f. Current Environmental Activities:
Nutrient Cycling in Savannas Effects of Forest Degradation.
 - g. Level of Target group: General Public, College/University Research &
Other (e.g. farmers pastoralists).
 - h. Language spoken and written: English
 - i. Other Relevant Information: Societies: (i) British Ecological
Society, (ii) Ecological Society of Nigeria, (iii) Nigerian Field
Society.
24. Name: Dr. Olugbemiga Frederick KAMSON
- a. Academic Qualifications: B.Sc Hons (Chemistry), M.Sc. (Analytical
Chemistry), Ph.D (Chemistry).
 - b. Professional Address: Dept. of Chemistry, University of Lagos
Akoka, Lagos, Nigeria.
 - c. Professional Title: Lecturer in Analytical and Environmental Chemistry.
 - d. Academic Discipline: Analytical Chemistry and Environmental Pollution.
 - e. Main Environmental Interest:
 - 1. Water supply and quality in the urban area and its environs.
 - 2. Toxic trace metal pollution in the city and industrialized
environments.
 - 3. Pesticide residues in water bodies.
 - f. Current Environmental Activities:
 - 1. Study of the patterns, progress, and problems of lead pollution in
the Lagos Metropolis.
 - 2. Study of the problems associated with water supply using galvanized
steel as material for water storage tank manufacture in Nigeria.
 - 3. Development of relevant test methods for the measurement of nitrate
content of rain water.
 - g. Level of Target group(s): General Public, College/University & Research.
 - h. Language(s) spoken and written: English and Yoruba.

25. Name: Mr. Mamadou NDOYE
- a. Academic Qualifications: Photogrammetric Engineer (I.I.C) Post-graduate Dip. Remote Sensing (INPE).
- b. Professional Address: Regional Centre for Training in Atmospace Surveys
P.M.B. 5545, Ile-Ife, Nigeria.
- c. Professional Title: Principal Lecturer, HOD, Aerospace Lab. Department.
- d. Academic Discipline: Remote Sensing: Photogrammetry - Space Imagery.
- e. Main Environmental Interest:
Environmental Impact on National Development.
- f. Current Environmental Activities:
Cartography/Application of remotely sensed data on environmental monitoring.
- g. Level of Target group(s): General Public.
- h. Language(s) spoken and written: French, English and Portuguese.
- i. Other Relevant Information: Was initially a Field Surveyor before embarking on photogrammetry, then on space imagery.
26. Name: Dr. Abayomi S. NOIBI
- a. Academic Qualifications: Ph.D.(1981 Iowa), M.Sc.(1977 Iowa) Science Education (Environmental Science), B.Sc. (1974) Environmental Health Science/Integrated Studies - The University of Nebraska, Lincoln N.B. U.S.A. 1974.
- b. Professional Address: Institute of Education,
University of Lagos, Akoka, Lagos, Nigeria.
- c. Professional Title:
Research Fellow I - Environmental Science and Science Education.
- d. Academic Discipline:
Science Education (Environmental Education/Training).
- e. Main Environmental Interest:
Application of environmental concepts and principles to the management of the environment at community level. Conceptual environmental education/training for the development of positive environmental attitude and action among teachers and sanitarians. Evaluation of environmental education programmes. Topical interests: Water conservation, energy education, wastes management and environmental ethics.
- f. Current Environmental Activities:
Teacher education and in-service training in environmental education. Integrating environmental education into national environmental programmes. In-service course on "Environmental Studies for the Community" for sanitarians. Development of evaluation instrument in environmental education. Research studies on the cognitive and affective processes involved in environmental education training.

- g. Level of Target group(s):
College/University, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English and Yoruba.
- i. Other Relevant Information:
International exposure to environmental problems and environmental education. Participated in a few environmental short-courses in the USA including the UNEP Environmental Education Programme for students from developing countries and the Harvard School of Public Health Training in Evaluation and Control of Environmental Hazards.
27. Name: Dr. Olu ODEYEMI
- a. Academic Qualifications: B.Sc. Agronomy, M.Sc. Soil Science, Ph.D. Microbiology.
- b. Professional Address: Department of Microbiology,
Obafemi Awolowo University
Ile-Ife, Nigeria.
- c. Professional Title: Associate Professor of Microbiology, Fellow of the Institute of Ecology.
- d. Academic Discipline: Agronomy, Soil Science, Ecology and Microbiology.
- e. Main Environmental Interest:
Environmental Impact Assessment, Water Quality and Water Resources Management, Control of Environmental Hazards, Biomass Energy Technology, Pesticide Pollution and Degradation, Waste Recycling.
- f. Current Environmental Activities:
Environmental Impacts of Pesticides, Water Quality and Pollution, Biomass Energy Technology, Waste Recycling.
- g. Level of Target group(s):
College/University & Research.
- h. Language(s) spoken and written: English and Yoruba.
28. Name: Dr. E.A. ODU
- a. Academic Qualifications: B.Sc. (Ife), Ph.D. (Wales).
- b. Professional Address: Department of Botany,
Obafemi Awolowo University
Ile-Ife, Nigeria.
- c. Professional Title: Reader in Botany.
- d. Academic Discipline: Botany.
- e. Main Environmental Interest:
Ecology of Bryophytes. The use of Bryophytes and Lichens as Bioindicators of Environmental Pollution.

- f. Current Environmental Activities: Distribution of Bryophytes in the Nigerian Environment. Accumulation of Metallic Elements by Bryophytes. The reproductive strategies of Bryophytes.
- g. Level of Target group(s):
Research.
- h. Language(s) spoken and written: English and Yoruba.
- i. Other Relevant Information: I am at present a Reader in the above University. I lecture third year, final year and postgraduate students.
29. Name: Dr. Oluwole Adeoye ODUMADE
- a. Academic Qualifications: B.Sc. (Mech. Eng.), M.Sc., Ph.D. (Environ Eng).
3. Professional Address: Federal Ministry of Works & Housing,
Environmental Planning and Protection Division
24 Keffi Street, Ikoyi Lagos, Nigeria.
- c. Professional Title: Chief Scientific Officer.
- d. Academic Discipline: Mechanical Engineering, Environmental Engineering, and Air Pollution Control.
- e. Main Environmental Interest:
General environmental management, air pollution assessment, and air pollution control.
- f. Current Environmental Activities:
Head of Environment Division in Kano State (Nigeria) with activities in: Water Quality Control, Industrial and Domestic Wastes Management, Environmental Education and Awareness, Air Pollution Pesticides, Environmental Sanitation.
- g. Level of Target group(s):
General Public, Elementary School High School/Vocational, College/University, Research, & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English and Yoruba.
30. Name: Mr. Abimbola Oyindamola ODUMOSU
- a. Academic Qualifications: B.Sc. (Hons), Ph.D., Ds.E.
- b. Professional Address: H.R.U. Civil Engineering Dept.
University of Lagos, Nigeria.
- c. Professional Title: Research Fellow in Water and Wastes Engineering.
- d. Academic Discipline: Sanitary Engineering.
- e. Main Environmental Interest: Industrial waste water treatment processes, with special interest in anaerobic treatment of industrial wastes oil pollution of underground water, and textile wastes.

- f. Current Environmental Activities:
1. On-going study on anaerobic treatment of brewery wastes.
 2. Examination of a textile waste in order to recommend a feasible treatment option.
 3. A study of oil contamination of groundwater of a leaky underground petrol tanker.
- g. Level of Target group(s): College/University and research.
- h. Language(s) spoken and written: English and Yoruba.
31. Name: Mr. I.E. OFOENZIE
- a. Academic Qualifications: B.Sc. (Zoology) Ife), M.Sc. (Hydrobiology/Parasitology) I (Ife).
- b. Professional Address: Institute of Ecology
Obafemi Awolowo University, Ile-Ife
- c. Professional Title: Research Fellow, Institute of Ecology.
- d. Academic Discipline: Hydrobiology, Parasitology and Disease Vector Ecology.
- e. Main Environmental Interest:
1. Research on the disease vector-borne problems of water resources projects.
 2. Environmental impact assessment of development projects.
- f. Current Environmental Activities:
- a. Feasibility of Hydro-electric project scheme at Asaba
 - b. Disease vector problems of Oyan Dam and Reservoir.
 - c. Impact of small ponds on prevalence of Dracunculiasis.
- g. Level of Target group(s): General Public & Research.
- h. Language(s) spoken and written: English.
32. Name: Professor M.O. OGEDENGBE
- a. Academic Qualifications: B.Sc. Civil Engineering, Univ. of Wisconsin, Madison USA (1968) MSc., PhD Sanitary (Civil) Engineering, Iowa State University, Ames. (1970 and 1972).
- b. Professional Address: Department of Civil Engineering
Obafemi Awolowo University
Ile-Ife, Nigeria.
- c. Professional Title: Professor and (current) Head, Dept of Civil Engineering.
- d. Academic Discipline: Sanitary (Civil) Engineering.
- e. Main Environmental Interest: Water treatment problems/solutions, Water resources engineering. Research on local inputs to water systems and teaching at undergraduate, postgraduate levels.

- f. Current Environmental Activities: Teaching/Research; Consulting (part-time) feasibility studies on water supply, short courses. Workshops etc.
- g. Level of Target group(s): General Public and Research.
- h. Language(s) spoken and written: English and French.
- i. Other Relevant Information: Would be willing to interact and participate at the African regional level

33. Name: Dr. Olayinka O. OGUNKOYA

- a. Academic Qualifications: B.Sc. (Hons), Ph.D.
- b. Professional Address: Department of Geography/Institute of Ecology
Obafemi Awolowo University
Ile-Ife, Nigeria.
- c. Professional Title: Senior Lecturer in Geography and Senior Research Fellow in Ecology.
- d. Academic Discipline: Geography - Fluvial Geomorphology, Drainage Basin Processes.
- e. Main Environmental Interest: Water Resource Planning and Management, Hydrology.
- f. Current Environmental Activities:
 - 1. Water Resource Planning and Management, especially contribution of subsurface flows to river chemistry, etc.
 - 2. Disease Vector Implications of Oyan Dam and Reservoir
 - 3. Radio Programmes/Newspaper Articles.
- g. Level of Target group(s): General Public, College/University Research and Other (e.g. farmers pastoralists).
- h. Language(s) spoken and written: English.

34. Name: Dr. S.I.A. OJO

- a. Academic Qualifications: B.Sc., Diploma H.E., Ph.D.
- b. Professional Address: Civil Engineering Dept., University of Lagos
Akoka, Nigeria.
- c. Professional Title:
Senior Research Fellow in Hydraulics and Water Resources Engineering.
- d. Academic Discipline: Hydraulics Engineering.
- e. Main Environmental Interest:
Flooding & River Engineering Effects, Courses, etc. Erosion.
- f. Current Environmental Activities: Flood analysis for selected areas in Nigeria. Erosion/sedimentation effects.
- g. Level of Target group(s): General Public, and Research.

- h. Language(s) spoken and written: English.
35. Name: Dr. Francis C. OKAFOR
- a. Academic Qualifications: B.Sc (Hons) Geography, M.Sc. Geography, Ph.D. Geography & Environmental Management.
- b. Professional Address: Dept. of Geography & Regional Planning
University of Benin, Benin City, Nigeria.
- c. Professional Title: Associate Professor.
- d. Academic Discipline: Environmental Management and Planning
- e. Main Environmental Interest:
1. Research in Land Resource Depletion.
 2. Environmental Decay in the Rural-Urban Fringe.
 3. Rural Housing Quality.
- f. Current Environmental Activities:
Research in the following areas:
1. Rural housing quality and decay.
 2. Rural industrialization and environmental quality.
- g. Level of Target group(s): General Public and Rural People.
- h. Language(s) spoken and written: English
- i. Other Relevant Information:
Served as a Consultant to the UN Centre for Regional Development on Environmental Issues.
36. Name: Prof. O. OKE
- a. Academic Qualifications: B.Sc. Ph.D.
- b. Professional Address: Chemistry Dept.
Obafemi Awolowo University,
Ile-Ife Nigeria.
- c. Professional Title: Professor.
- d. Academic Discipline: Nutritional Chemistry.
- e. Main Environmental Interest: Toxicology, Pollution.
- f. Current Environmental Activities:
Pollution of rivers by oil, PCB determination and other pollutants.
- g. Level of Target group(s): General Public, College/University, and Research.
- h. Language(s) spoken and written: English

- i. Other Relevant Information: Environmental Monitoring Research in Progress.
37. Name: Dr. Dorcas Izegbua OKOR
- a. Academic Qualifications: B.Sc., M.Sc., Ph.D (Chemistry).
- b. Professional Address: Dept. of Chemistry, University of Benin
Benin City, Nigeria.
- c. Professional Title: Senior Lecturer.
- d. Academic Discipline: Organic/Environmental Chemistry.
- e. Main Environmental Interest: Toxic chemicals in the environment, especially pesticide residues and other potential carcinogens.
- f. Current Environmental Activities:
1. Survey of organochlorine pesticide residues in Nigerian environment with a view to establishing baseline data.
 2. Screening of Nigerian baby-foods for nitrates, nitrites and nitrosamines.
 3. Formaldehyde content of some foodstuffs, consumer products and worker environment.
- g. Level of Target group(s): General Public, College/University, & Research.
- h. Language(s) spoken and written: English and Ishan.
- i. Other Relevant Information: Interested in collaborative work on toxic chemicals in African environment. We have manpower but there is acute shortage or absence of facilities.
38. Name: Dr. Christopher Chukwuemeka OKORO
- a. Academic Qualifications: B.Sc (Hons), M.Sc., D.I.C., Ph.D, C.Eng, MIEE.
- b. Professional Address: Dept. of Electrical Engineering
Faculty of Engineering, University of Lagos.
- c. Professional Title: Senior Lecturer.
- d. Academic Discipline: Electrical Engineering.
- e. Main Environmental Interest: Use of alternative energy sources (solar energy, wind power) for power supplies in isolated areas and farm houses.
- f. Current Environmental Activities:
Use of solar power for operation of pumps used in water treatment and irrigation systems. University of Lagos SATEC Project.
- g. Level of Target group(s): Research and Other (e.g. farmers).
- h. Language(s) spoken and written: Igbo and English.

i. Other Relevant Information: Interested in using solar power as standing power supply in a village family house. Perhaps the UN Environment Programme might be interested in funding this project in Nigeria.

39. Name: Dr. F.O. OLATUNJI

a. Academic Qualifications: B.Sc. (Hons) Biochemistry, M.Sc. Biochemical Engineering, Ph.D. Chemical Engineering.

b. Professional Address: Dept. of Chemical Engineering, University of Lagos Akoka, Lagos, Nigeria.

c. Professional Title: Associate Professor of Chemical Engineering.

d. Academic Discipline: Biochemical Engineering.

e. Main Environmental Interest:
Biotreatment of Industrial and Domestic Effluents/Wastes.

f. Current Environmental Activities:
In a 4-country project on conversion of ligno-cellulose residues/wastes to animal feed.

g. Level of Target group(s): College/University, Research and Other (e.g. farmers, pastoralists and process industry).

h. Language(s) spoken and written: English.

i. Other Relevant Information: Attended a USAID project to Portugal on aspects of Biotreatment of Effluents/Wastes (9 months).

40. Name: Dr. Emmanuel A. OLOFIN

a. Academic Qualifications: B.A. (Geog) Ife, M.A.(Malaya), Ph.D. (ABU, Zaria).

b. Professional Address: Department of Geography
Bayero University
PMB 3011, KANO, Nigeria.

c. Professional Title: Associate Professor

d. Academic Discipline: Geography (Fluvial Geomorphology).

e. Main Environmental Interest:
Environmental impact of water resource development, soil erosion and management.

f. Current Environmental Activities:
Monitoring the impact of Tiga and other dams on the physical environment. Studies into the control of gully erosion, studies of desertification processes.

g. Level of Target group(s): College/University and Research.

h. Language(s) spoken and written: English.

i. Other Relevant Information: Have also studied sedimentation in alluvial channels and land evaluation/classification for planning purposes.

41. Name: Mr. Paul A. OLUWANDE

a. Academic Qualifications: B.Sc. (Civil Eng.) London, M.Sc. London, D.I.C.

b. Professional Address: Department of Civil Engineering
University of Ibadan, Ibadan, Nigeria.

c. Professional Title
Professor of Civil and Environmental Engineering.
Member, Institution of Civil Engineers and Chartered Civil Engineers.

d. Academic Discipline: Civil and Environmental Engineering.

e. Main Environmental Interest: Water Quality Control and Waste Management.

f. Current Environmental Activities

1. Urban Waste Management.
2. Development of stands for factory and industrial waste-water.
3. Investigation of effects of on-site sewage disposal methods on soils.

g. Language(s) spoken and written: English.

i. Other Relevant Information

Have been involved in the provision of services, teaching and research on environmental protection in different parts of Africa. Have visited China, India, Brazil, U.K. USA, Lebanon and Switzerland to research into environmental management programmes.

42. Name: Mr. J.M. OLUWATIMILEHIN

a. Academic Qualifications: B.Sc., M.Sc. (Geography).

b. Professional Address: Institute of Ecology,
Obafemi Awolowo University,
Ile-Ife, Nigeria.

c. Professional Title Research Fellow.

d. Academic Discipline: Geography.

e. Main Environmental Interest: Sediment Studies in Running Waters.

f. Current Environmental Activities

A research project on Sediment Dynamics of Small Streams Draining Quartzitic Rocks on the Basement Complex of South Western Nigeria.

g. Level of Target Group(s): General Public, College/University, Research and other (e.g. farmers, pastoralists).

h. Language(s) spoken and written: English.

43. Name: Dr. Francis G.I. OMIUNU
- a. Academic Qualifications:
B.A. (Ife); M.A. (Toronto); Ph.D. (Benin); F.R.G.S. (London).
- b. Professional Address: Dept. of Geography & Regional Planning.
University of Benin, PMB 1154, Benin City, Benin.
- c. Professional Title: Senior Lecturer.
- d. Academic Discipline: Geography and Regional Planning.
- e. Main Environmental Interest: Flooding, Drought and Desertification,
Marine Pollution and Ocean Management.
- f. Current Environmental Activities:
1. Effects of Drought on Food Production in Nigeria.
2. Flooding and Traffic Management in some Nigerian Cities.
3. Effects of Water Hyacinth on Navigation, Fishing Industry and Ports
operations in Nigerian Territorial Waters.
- g. Level of Target group(s): General Public, and University/College.
- h. Language(s) spoken and written: English.
44. Name: Prof. Andrew Godwin ONOKERBORAYE
- a. Academic Qualifications: B.Sc. Geography (Ibadan 1970)
Ph.D. Geography (London School of Economics 1974)
- b. Professional Address: Faculty of Social Sciences
University of Benin PMB 1154, Benin City, Benin.
- c. Professional Title: Professor.
- d. Academic Discipline: Geography/Urban Planning.
- e. Main Environmental Interest:
Urban environmental planning, and Housing planning.
- f. Current Environmental Activities: Research projects in urban environment.
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English.
45. Name: Dr. Sebastian PATRICK
- a. Academic Qualifications: BA (Hons) Geography - Nigeria, M. Phil -
Reading. Ph.D. London.
- b. Professional Address: Department of Geography
Bayero University Kano
P.M.B. 30011 Kano, Nigeria.

- c. Professional Title: Lecturer.
- d. Academic Discipline: Geomorphology (Applied), Resource surveys and remote sensing applications.
- e. Main Environmental Interest: Land degradation and erosion (Gully) control.
- f. Current Environmental Activities:
 - 1. Soil erosion studies and control in Gongola and Kano States, Nigeria.
 - 2. Impact of Dams on the Environment.
- g. Level of Target group(s): College/University, Research and other (e.g. farmers).
- h. Language(s) spoken and written: English.

46. Name: Professor Oluwole O. SONGONUGA

- a. Academic Qualifications: B.Sc (Hons); M.Eng.; Ph.D.
- b. Professional Address: Faculty of Health Sciences
Obafemi Awolowo University, Ile-Ife,
Oyo State, Nigeria.
- c. Professional Title:
Professor and Head of Department of Environmental Health & Epidemiology.
- d. Academic Discipline: Civil Engineering, Public Health Engineering,
Environmental Health Engineering.
- e. Main Environmental Interest: Water, Waste Water (Sewage and Industrial Wastes) and Solid Wastes Manager.
- f. Current Environmental Activities:
Studies on Biogas Formation and Multiple PIT V.I.P. latrine.
- g. Level of Target group(s): General Public, Elementary School, High School/Vocational & Research.
- h. Language(s) spoken and written: English.
- i. Other Relevant Information: Attended 1978 Workshop of UNEP in Nairobi, Kenya. Interested in international collaborative work.

47. Name: Mrs. R. Adefunke SOWOLE

- a. Academic Qualifications: O.N.D. (Lab Tech), H.N.D. (Science Tech - Biochemistry); Certificate in Public Health Engineering Course at Newcastle University, England.
- b. Professional Address: Civil Engineering Dept, University of Lagos
Akoka, Lagos, Nigeria.
- c. Professional Title: Principal Technologist.

- d. Academic Discipline:
Science Technology - Biochemistry and Public Health Engineering.
- e. Main Environmental Interest:
1. Water supply and waste water analysis (domestic, industrial and agricultural).
 2. Research studies on treatment plants of municipal water and waste water.
 3. Anaerobic treatment of waste water.
- f. Current Environmental Activities:
1. Routine water and waste water analysis.
 2. Septage analysis with regards to metropolitan Lagos, Nigeria.
 3. Research studies on treatment plants of a textile industry in Lagos, Nigeria.
 4. Students' projects on topics like analysis of oil in water, iron removal in water, corrosivity of water.
 5. Laboratory management and general supervision of the lab.
- g. Level of Target group(s): General Public, College/University, & Research.
- h. Language(s) spoken and written: English.

48. Name: Prof. Alfred Akpoveta SUSU

- a. Academic Qualifications: B.Sc. (Chem.Eng.) University of Idaho 1966
M.S. (Chem.Eng) Stanford University, 1967; Ph.D. (Chem.Eng.) Stanford University 1971.
- b. Professional Address: Chemical Engineering Dept, University of Lagos
Lagos, Nigeria.
- c. Professional Title: Professor.
- d. Academic Discipline: Chemical Engineering.
- e. Main Environmental Interest:
1. Petroleum Pollution in the Marine Environment.
 2. Deodorization of industrial solvents.
 3. Desulphurization catalysis.
 4. Atmospheric flue gas pollution.
- f. Current Environmental Activities: Research and Development; Industrial Consultancy; and Organization of Workshops (proposed).
- g. Level of Target group(s): Research and Other (e.g. farmers, pastoralists, industries, government agencies and ministries).
- h. Language(s) spoken and written: English, Yoruba, Urhobo (spoken).
- i. Other Relevant Information:
1. Have supervised 32 undergraduate research projects; 10 M.Sc. projects; & 5 Ph.D. Thesis.
 2. One Book (John West - In Press) and 40 research publications in chemical engineering.
 3. Many M.Sc. projects in the areas enumerated in (e) above.

4. Presently supervising one Ph.D in the area of petroleum pollution in the marine environment.

49. Name: Dr. I. Chidi UGWU

- a. Academic Qualifications: Ph.D (1985 Berlin); M.Sc (1981 Berlin); B.Sc (1975 Cologne and HND (1971 Trier).
- b. Professional Address: Dept. of Urban and Regional Planning
Anambra State University of Technology (ASUTECH)
PMB 01660, ENUGU- Nigeria.
- c. Professional Title: Lecturer (Architect and Planner).
- d. Academic Discipline: Urban and Regional Planning and Architecture.
- e. Main Environmental Interest:
Environmental Impact and Assessment Analysis.
Squatter and Slum Upgrading/Renewal
Housing the Poor/Low Income Group
Urban Environmental Problems.
- f. Current Environmental Activities:
Transportation and Environmental Impact Industrialization and
Environmental Quality.
- g. Level of Target group(s): General Public, College/University and
Research.
- h. Language(s) spoken and written: IGBO, English & German.
- i. Other Relevant Information: Holds a Certificate/Diploma in Project
Management.

50. Name: Dr. O Alex UGWUMBA

- a. Academic Qualifications: Ph.D (Zoology).
- b. Professional Address: Department of Zoology
University of Ibadan, Ibadan, Nigeria.
- c. Professional Title: Lecturer.
- d. Academic Discipline: Fisheries/Marine Ecology.
- e. Main Environmental Interest:
Toxic effluent - Rubber industry, Oil Industries, and Aquatic Plant Bloom.
- f. Current Environmental Activities:
Water Hyacinth Research Team.
- g. Level of Target group(s): College/University Research Other (e.g.
farmers, pastoralists).
- h. Language(s) spoken and written: English.

1. Other Relevant Information: Holds a Certificate/Diploma in Project Management.

51. Name: Mr. Austin A. USMAN

a. Academic Qualifications: B.Sc. (Hons) Geography (Nigeria); M.Sc. Land Resources Development (Nigeria).

b. Professional Address: c/o Department of Geography
Bayero University
P.M.B. 3011, KANO - Nigeria.

c. Professional Title: Lecturer.

d. Academic Discipline: Land Resources Development and Remote Sensing/Geography.

e. Main Environmental Interest:
Project design and monitoring and land use conservation.

f. Current Environmental Activities:
Assessment of remote sensing imageries for resource development in Kano State of Nigeria.

g. Level of Target group(s): College/University Research Other (e.g. farmers, pastoralists).

h. Language(s) spoken and written: English.

i. Other Relevant Information: Interested in the use of scientific and technical tools to support development projects.

52. Name: Dr. Ioryisa VERINUMBE

a. Academic Qualifications: B.Sc. in General Forestry, M.Sc. in Agroforestry Ecology, and Ph.D. in Agroforestry.

b. Professional Address: Dept. of Biological Sciences
University of Maiduguri, PMB 1069
Maiduguri, Nigeria.

c. Professional Title: Senior Lecturer.

d. Academic Discipline: Forestry, Agroforestry.

e. Main Environmental Interest:
Ecosystem conservation in arid and semi-arid areas.

f. Current Environmental Activities:
Research and development of suitable agroforestry systems for afforestation and conservation of arid ecosystems by rural communities.

g. Level of Target group(s): Farmers, pastoralists.

- h. Language(s) spoken and written: English.
- i. Other Relevant Information:
Have got considerable field experience in all aspects of forestry and agroforestry.

SENEGAL

- 1. Name: Dr. Sene ABDOULAYE
 - a. Academic Qualifications:
Doctor in Sociology, Master's Degree in Geography.
 - b. Professional Address: Institute of Environmental Sciences, Faculty of Sciences, Cheikh Anta Diop Université de Dakar, Dakar, Sénégal.
 - c. Professional Title: Assistant Professor.
 - d. Academic Discipline: Sociology.
 - e. Main Environmental Interest: Sociology of environment of aquatic milieu.
 - f. Current Environmental Activities:
Management of water, agriculture development, hydrology and fisheries.
 - g. Level of Target group(s): College/University & Research.
 - h. Language(s) spoken and written: English, French, Spanish.

- 2. Name: Dr. Essam El-Din MONTASSER
 - a. Academic Qualifications: Ph.D (Princeton) 1972.
 - b. Professional Address: I.D.E.P., B.P. 3186, Dakar, Senegal.
or 22 Taha Hussein Street, Zamalek, Appt 29
Cairo, Egypt.
 - c. Professional Title: Director, United Nations African Institute for Economic Development and Planning (UN IDEP).
 - d. Academic Discipline: Economic Development and Planning.
 - e. Main Environmental Interest:
 - 1. Interrelation between economic development effort and policies and the environment in Africa and the Middle East.
 - 2. Interrelation of micro-economy and macro-ecology in the course of growth.
 - f. Current Environmental Activities: Integration of environmental and ecological variables and factors in economic development and planning, research, advisory services and training.
 - g. Level of Target group(s): College/University and Research.
 - h. Language(s) spoken and written: French, English and Arabic.

3. Name: Dr. Abou THIAM

a. Academic Qualifications: Doctor 3rd cycle on sciences and Environment/Biologist.

b. Professional Address: Institute of Sciences and environment
Faculty of Sciences - University Cheikh Anta Diop - Dakar.

c. Professional Title: Assistant.

d. Academic Discipline: Ecologie végétale/Biologie.

e. Main Environmental Interest:

1. Pesticide problems.
2. Biomass and producticity.

f. Current Environmental Activities:
Training and research.

g. Level of Target group(s): College/University.

h. Language(s) spoken and written: Français

4. Name: Arthur TIBESAR

a. Academic Qualifications: Docteur en sciences de l'environnement (Belgium) - Master Sc. Economiques.

b. Professional Address: ISE
Université de Dakar.

c. Professional Title: Professeur

d. Academic Discipline: Economie du Développement de l'environnement. Micro-Informatique.

e. Main Environmental Interest:

1. Energie.
2. Deforestation.

f. Current Environmental Activities:
Professeur dans un institut universitaire étudiant l'environnement.

g. Level of Target group(s): General Public, College/University, Research and Other (e.g. farmers, pastoralists).

h. Language(s) spoken and written: Français, Néerlandais (Bon) Anglais (Moyen) Allemand (Moyen) Espagnol (Moyen).

SIERRA LEONE

1. Name: Dr. Osman Mohamed BAH
- a. Academic Qualifications: B.A. Ed. (University of Sierra Leone M.Sc., D.I.C, Ph.D (University of London).
- b. Professional Address: Department of Environmental Studies and Geography
Njala University College (Univ of Sierra Leone)
Private Mail Bag
Freetown
Sierra Leone/West Africa.
- c. Professional Title: University Lecturer.
- d. Academic Discipline: Water Resource and Environmental Sanitation.
- e. Main Environmental Interest: Environmental Awareness Programmes (Outreach Programmes) - forestry, water and sanitation.
- f. Current Environmental Activities: Helping to establish regional groups of the National Conservation Society of Sierra Leone.
- g. Level of Target groups: General Public College/University and research
- h. Language spoken and written: English and French.

2. Name: Andrew K. BOMAH
- a. Academic Qualifications: B.A. (Hons) M.A Ph.D, Dip. Watershed Management.
- b. Professional Address: Geography and Environmental Studies,
Njala University College
Private Mail Bag
Freetown
Sierra Leone.
- c. Professional Title: Lecturer.
- d. Academic Discipline: Geomorphology/Hydrology.
- e. Main Environmental Interest: Soil utilization, degradation and conservation.
- f. Current Environmental Activities:
 - i. Watershed Degradation in Sierra Leone
 - ii. Role of environmental constraints in developing peasant farming in Sierra Leone.
- g. Level of Target group(s): General Public, Farmers, College/University and Institutional Research.
- h. Language(s) spoken and written: English.

3. Name: Serrie I. KAMARA

a. Academic Qualifications:

b. Professional Address: Department of Geography and Environmental Studies
Njala University College
Private Mail Bag
Freetown, Sierra Leone/West Africa.

c. Professional Title: Lecturer.

d. Academic Discipline: Climatology/Agro Climatology.

e. Main Environmental Interest: Rainfall and Drought Studies.

f. Current Environmental Activities:

The impact of climatic variations on Agriculture in Sierra Leone.
Teaching Environmental Studies to undergraduate Geography and Agriculture Students.

g. Level of Target group(s): General Public, College/University, & Research farmers.

h. Language(s) spoken and written: English and French.

4. Name: Dr. Herbert B. S.. KANDEH

a. Academic Qualifications: B.A. (Hons), M.A. Ph.D.

b. Professional Address: Department of Geography and Environmental Studies
Njala University College
Private Mail Bag
Freetown, Sierra Leone.

c. Professional Title: Prof. and Head of Department.

d. Academic Discipline: Population Studies.

e. Main Environmental Interest:

Mortality and morbidity studies; area variations in mortality levels.

f. Current Environmental Activities:

Population growth and bush fallow cultivation systems.

g. Level of Target group(s):

General Public, High School, University, Research.

h. Language(s) spoken and written: English and French.

SUDAN

1. Name: Dr. Eisa Mohamed ABDELLATIF

a. Academic Qualifications:

B.Sc.(Hons) Zoology, M.A. Biology, M.Phil, Ecology, Ph.D. Ecology.

- b. Professional Address: Institute of Environmental Studies, University of Khartoum, Box 321, Khartoum, Sudan.
- c. Professional Title: Lecturer.
- d. Academic Discipline: Ecology & Environmental Studies.
- e. Main Environmental Interest: Aquatic Pollution, Environmental Education, Small Mammal Ecology (Rodents and Bats), Marine Ecology (Sea Turtles).
- f. Current Environmental Activities:
 - 1. Teaching Environmental Studies (M.Sc. and College Level).
 - 2. Teaching Ecology (M.Sc. & College level).
 - 3. Research on Wildlife Ecology (Bats & Turtles) & Pollution.
 - 4. Secretary General of the Sudan Environment Conservation Society.
- g. Level of Target group(s): General Public, College/University, Research, Other (e.g. farmers, pastoralists) & Teachers.
- h. Language(s) spoken and written: Arabic & English.
- i. Other Relevant Information: Designed and taught Environmental Education courses for teachers, administrators and officers as well as for college students.

2. Name: Dr. Isam Mohamed ABDEL-MAGID

- a. Academic Qualifications:
B.Sc. Eng., DPH, DDSE, Ph.D., MSES, MIWRA, Grad. IPHE.
- b. Professional Address: Civil Engineering Dept., Box 321
Faculty of Engineering & Architecture
University of Knartoum, Sudan
- c. Professional Title: Associate Professor.
- d. Academic Discipline: Public Health Eng. (Environmental Eng.).
- e. Main Environmental Interest:
Water supply treatment, sewage disposal and treatment, solid waste disposal and treatment, air pollution.
- f. Current Environmental Activities:
Research in the above mentioned fields. Teaching both undergraduates and postgraduate candidates.
- g. Level of Target group(s): General Public, High School/Vocational, College/University, Research, Other (e.g. farmers, pastoralists), Treatment Plant Operators.
- h. Language(s) spoken and written: Arabic and English
- i. Other Relevant Information: Involved in many short and crash training courses in water supply and sanitation.

3. Name: Dr. Mohamed El-Hadi ABUSIN
 - a. Academic Qualifications: M.A., Ph.D.
 - b. Professional Address: Institute of Environmental Studies
University of Khartoum, Sudan.
 - c. Professional Title: Associate Professor
 - d. Academic Discipline: Demography, Urbanization
 - e. Main Environmental Interest:
Population Dynamics, Urbanization, Development and Environment, Rural change.
 - f. Current Environmental Activities:
Eastern Region (Sudan) Kassalla Environmental Profile, Population and Environment, Population Education, Greater Khartoum Management and Environmental Problems (Book).
 - g. Level of Target group(s):
Research, Other (e.g. farmers, pastoralists).
 - h. Language(s) spoken and written: Arabic and English

4. Name: Dr. Osman Mirghani Mohamed ALI
 - a. Academic Qualifications:
Ph.D. Science (Botany), University of London, 1983.
 - b. Professional Address: Institute of Environmental Studies
University of Khartoum, Sudan.
 - c. Professional Title: Lecturer.
 - d. Academic Discipline: Limnology.
 - e. Main Environmental Interest:
Aquatic Ecosystems, Desertification, Industrial Pollution.
 - f. Current Environmental Activities:
 - a. Teaching Freshwater Ecosystem Management.
 - b. Research on the use of Polymers to Increase Trees Survival.
 - c. Supervision of M.Sc Projects on:
 - i. Pesticides residues,
 - ii. Industrial Waste,
 - iii. Use of Polymers in Sandy soils.
 - d. Survey of Freshwater Weeds and Algae.
 - g. Level of Target group(s):
College/University & Research.
 - h. Language(s) spoken and written: Arabic, English.
 - i. Other Relevant Information:
Member of the Executive Committee of the Sudanese Society for the Protection of the Environment.

5. Name: Dr. Bashir Mohamed ELHASSAN
- a. Academic Qualifications: B.Sc. 1967, Post-graduate Diploma Sanitary Eng. 1969, Ph.D. Sanitary Eng. 1973.
- b. Professional Address: Faculty of Engineering
University of Khartoum, Sudan and Institute of
Environmental Studies
- c. Professional Title: Associate Professor.
- d. Academic Discipline: Sanitary Engineering.
- e. Main Environmental Interest:
Water and Wastewater - Collection - Treatment - Disposal.
- f. Current Environmental Activities:
Assessment of ground water pollution in Omdurman.
Industrial Waste Treatment.
- g. Level of Target group(s): College/University & Research.
- h. Language(s) spoken and written: Arabic, English, Russian.
- i. Other Relevant Information:
Organised short term courses on water and sanitation.
6. Name: Dr. Asim I. EL MOGHRABY
- a. Academic Qualifications:
Ph.D Zoology, Diploma Environmental Management and Protection, Technical University, Dresden GDR.
- b. Professional Address: Hydrobiological Research Unit &
Institute of Environmental Studies,
University of Khartoum, Box 321, Khartoum, Sudan.
- c. Professional Title: Associate Professor.
- d. Academic Discipline: Limnology.
- e. Main Environmental Interest:
Tropical, Limnology and Hydrology, pollution, renewable energy, wildlife conservation, ecosystems management and desertification.
- f. Current Environmental Activities:
Systematic studies on aquatic fauna and flora of Sudan.
Synecology of wildlife in Dinder National Park.
Blue Nile watershed management.
Land use conflict around Dinder National Park.
Renewable energy in the Sudan, resources and utilization.
Long-term history of drought and desertification, Western Sudan.
- g. Level of Target group(s): General Public, College/University & Research.
- h. Language(s) spoken and written: Arabic and English.

7. Name: Prof. Hassan Osman Abd ELNOUR
- a. Academic Qualifications:
B.Sc (Forestry), M.Sc. (Forest Entomology), Ph.D (Forest Entomology).
- b. Professional Address: c/o Institute of Environmental Studies
Box 321, Khartoum, Sudan.
- c. Professional Title: Professor.
- d. Academic Discipline:
Forestry; Forest Entomology (termites), Forestry Education.
- e. Main Environmental Interest:
Forestry. The various roles of forestry (productive, protective).
- f. Current Environmental Activities:
Forestry education; integration of land-use practices; forestry extension; inclusion of environmental education on all education stages; sand-dune stabilization.
- g. Level of Target group(s): General Public, Elementary School, High School/Vocational, College/University, Research, Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: Arabic, English.
8. Name: Dr. Mohamed O. EL SAMMANI
- a. Academic Qualifications: B.A., M.A., M.Sc. Agric. Extension, Ph.D.
- b. Professional Address: Institute of Environmental Studies
University of Khartoum, Sudan.
- c. Professional Title: Associate Professor.
- d. Academic Discipline:
Geography (Socio-economic, Human Settlement, Rural Development, Regional Planning).
- e. Main Environmental Interest:
Resource Assessment, Environment and Development, Environmental Considerations in Planning, Water Management, Desertification Control, etc.
- f. Current Environmental Activities:
Teaching and Research on:
1. Darfur Resource Assessment.
2. Environmental Profile for Kassala.
3. AMCEN Project.
- g. Level of Target group(s): General Public, College/University, Research, Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: Arabic and English.

- i. Other Relevant Information:
Written number of reports on strategies for rehabilitation of desertified areas.
9. Name: Mr. Mahdi Amin ELTOM
- a. Academic Qualifications: B.A. (Hons), M.A., Ph.D.
- b. Professional Address: Omdurman Islamic University
Box 382, Omdurman, Sudan.
- c. Professional Title: Professor.
- d. Academic Discipline: Climatology.
- e. Main Environmental Interest:
1. Physical & Applied Climatology.
2. Physical environment.
3. Environmental change.
- f. Current Environmental Activities:
1. Member of National Environmental Committee.
2. Member of Academic Board, Institute of Environmental Studies.
3. Chairman/President of Sudanese Geographical Society.
- g. Level of Target group(s): General Public, College/University & Research.
- h. Language(s) spoken and written: English & Arabic.
- i. Other Relevant Information:
Member of first UNEP Delegation to China.
Member of DECARP Group.
10. Name: Dr. Yagoub Abdalla MOHAMED
- a. Academic Qualifications:
B.A., M.A., Ph.D.
Certificate of Achievement Eros Data Centre.
Certificate of Achievement South Dakota Remote Sensing Institute.
- b. Professional Address: Director, Institute of Environmental Studies
University of Khartoum, Sudan.
- c. Professional Title: Director, Institute of Environmental Studies.
- d. Academic Discipline: Geography (Rural Development).
- e. Main Environmental Interest:
Environmental Education, Environmental Management, Environmental Impact Assessment, Water Resources, Rural Development, and Manpower Development.
- f. Current Environmental Activities:
Teaching: Environmental Impact Assessment.
Research: Development of pastoralists; impact of drought and desertification on farmers, and Darfur Region Resource Assessment.

- g. Level of Target group(s): General Public, College/University and Research.
- h. Language(s) spoken and written: Arabic and English.
- i. Other Relevant Information:
Organized training courses on Environmental Education.
Prepared teaching materials on Environmental Education.
Organised short training course on "water supply and sanitation", Sudan.

11. Name: Dr. Tagelsir Ahmed MOHAMMED

- a. Academic Qualifications: B.V.Sc. (Veterinary Science), M.Sc., Ph.D.
- b. Professional Address: Institute of Environmental Studies, (IES)
University of Khartoum, Sudan.
- c. Professional Title: Associate Professor.
- d. Academic Discipline: Applied Animal Science.
- e. Main Environmental Interest:
 1. Environmental Impact Assessment.
 2. Pastoralist Development.
 3. Animal Production.

f. Current Environmental Activities:

Research:

1. Kassala Environmental Profile.
2. Development of AMCEN projects for Eastern Sudan.
3. Camel Breeding.

Teaching:

4. Animal Production.

- g. Level of Target group(s):
High School/Vocational, College/University, Research & Pastoralists.
- h. Language(s) spoken and written: Arabic, English.
- i. Other Relevant Information:
Involved in short-training courses for teachers and extension workers.

12. Name: Dr. Abbas Shasha MUSA

- a. Academic Qualifications: B.Sc., M.Sc., Ph.D.
- b. Professional Address: Institute of Environmental Studies
Box 321, University of Khartoum, Sudan.
- c. Professional Title: Lecturer.
- d. Academic Discipline:
Hydrogeology, Geomorphology of Soil Science (Pedology).

- e. Main Environmental Interest:
Pedology especially that pertinent to tropical regions.
Pedogeomorphology, Desertification and its influence on soil and land use.
Groundwater (its availability and use).
- f. Current Environmental Activities:
 1. Soil resources of the White Nile area.
 2. Soils of Khartoum and its region.
 3. Use of renewable energies in water pumping in Sudan.
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: Arabic and English.
- i. Other Relevant Information: More interested in interdisciplinary studies involving land use and soil-plant-animal relationships.

13. Name: Dr. Hunud Abia KADOUF

- a. Academic Qualifications: LL.B., Ph.D.
- b. Professional Address: Institute of Environmental Studies
University of Khartoum, Box 321, Khartoum, Sudan.
- c. Professional Title: Lecturer.
- d. Academic Discipline: Environmental Law.
- e. Main Environmental Interest: Environmental Law.
- f. Current Environmental Activities:
 1. Teaching Environmental Law.
 2. Preparing Environmental Policy Act for the Sudan.
 3. Revising Sudan Environmental Laws.
- g. Level of Target group(s): College/University & Research.
- h. Language(s) spoken and written: Arabic and English.
- i. Other Relevant Information: Member of the Sudan National Committee for Environment and a Member of the Environmental Society of the Sudan.

14. Name: Ibrahim O. ALAM-EL-DIN

- a. Academic Qualifications:
M.A., Ph.D. in Geography (Geomorphology).
- b. Professional Address: University of Khartoum, Sudan. Now on secondment to Umm Al Qura University, Makkah, Saudi Arabia.
- c. Professional Title: Associate Professor.
- d. Academic Discipline: Geomorphology, Climatology, Arid land environment.
- e. Main Environmental Interest:
Water resources, physical environment, remote sensing.

- f. Current Environmental Activities:
Pollution in western cities of Saudi Arabia. Impact of petroleum exploration on the physical environment of W. Sudan.
- g. Level of Target group(s):
College/University, Research.
- h. Language(s) spoken and written: Arabic & English.
- i. Other relevant information: The importance of quaternary studies as related to the present environment.
15. Name: Mr. Hassan A. MUSNAD
- a. Academic Qualifications: B.Sc. (Bio) B.Sc. (Forestry) M.Sc. (Aridland Science).
- b. Professional Address: Assistant Commission for Rehabilitation
P.O. Box 1975
KHARTOUM
- c. Professional Title: Head, Rehabilitation Dept. Relief and Rehabilitation, Refugee Affairs.
- d. Academic Discipline:
Arid land specialist and Professor of Forest Research.
- e. Main Environmental Interest:
Reclamation of degraded ecosystems through integrated rural development projects.
- f. Current Environmental Activities:
Heading a multidisciplinary team to study eco-system degradation and solve their problems.
- g. Level of Target group(s): General Public College/University and Research.
- h. Language(s) spoken and written: Arabic and English.
- i. Other Relevant Information: Consultant to various organization, e.g., UNEP, FAO, IBRD, IDRC.
16. Name: Dr. Mirghani Tag El SEED
- a. Academic Qualifications: B.Sc. (Hons), University of Khartoum 1967
Ph.D. (Botany), University of Khartoum 1972.
- b. Professional Address: Hydrobiological Research Unit, University of Khartoum, Box 321, Khartoum, Sudan.
- c. Professional Title: Lecturer, Director, Hydrobiological Research Unit.

- d. Academic Discipline: Botany (Ecology).
- e. Main Environmental Interest:
 - 1. The socio-economic & environmental impacts of aquatic weeds in irrigation schemes.
 - 2. Wildlife.
 - 3. Desertification.
 - 4. Water management.
- f. Current Environmental Activities: Co-ordinator in the Institute of Environmental Studies (I.E.S), University of Khartoum; Secretary for the Academic Board (IES); Editor of Sudan Environment - the Newsletter of the IES; Teaching a course of freshwater ecology in the IES.
- g. Level of Target group(s): General Public, College/University and Research.
- h. Language(s) spoken and written: English and Arabic.
- i. Other Relevant Information: Contributed and participated in many workshops on Youth and the Environment.

17. Name: Dr. Mustafa M. SULIMAN

- a. Academic Qualifications: B.Sc., M.Sc., Ph.D., Range Ecology.
- b. Professional Address: Institute of Environmental Studies
University of Khartoum, Sudan.
- c. Professional Title: Director, Monitoring & Evaluation, RRC, Khartoum.
- d. Academic Discipline: Range Ecology and Range Management.
- e. Main Environmental Interest:
Desertification Control in Arid and Semi-arid Ecosystems.
- f. Current Environmental Activities: Desertification control through rangelands management and development.
- g. Level of Target group(s):
College/University & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English, Arabic.

SWAZILAND

- 1. Name: Prof. Paul S. MARO
- a. Academic Qualifications:
Ph.D.(Geography) 1974, M.A. (Geography) 1971, B.A. (Hons) 1969.
- b. Professional Address: Dept. of Geography, University of Swaziland
Private Bag 4, Kwaluseni, Swaziland.
- c. Professional Title: Professor.

- d. Academic Discipline: Geography.
- e. Main Environmental Interest:
1. Impact of population pressure on land resources.
 2. Use and conservation of various natural resources.
 3. National strategies for conservation.
- f. Current Environmental Activities:
1. Teaching geography courses with relevance to degradation and conservation of natural resources.
 2. Research into population pressure and conservation of land resources.
 3. Participating in the formulation of a national conservation strategy for Swaziland.
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English and Kiswahili.
- i. Other Relevant Information:
Active in environmental matters in Tanzania and in Zambia and contributed a chapter on environmental protection in Namibia.
2. Name: Ms. Lolo MKHABELA
- a. Academic Qualifications: B.A. (Majors: Sociology & English, Swaziland) Masters, Town and Country Planning (Sydney University, Australia).
- b. Professional Address: Ministry of Natural Resources & Energy.
Box 57, Mbabane, Swaziland.
- c. Professional Title: Physical Planning.
- d. Academic Discipline: Environmental Management and Assessment.
- e. Main Environmental Interest: Environmental Management & Assessment.
- f. Current Environmental Activities:
Coordinating environmental activities in the country which include national campaigns on littering, soil erosion, solid waste disposal and tree planting. Involvement in the National Environment Education Programme, distributing information/documents from international & national bodies to the relevant local organization. Secretary to the Interministerial Committee for Environmental Matters. Assisting NGO's with information relating to environmental issues.
- g. Level of Target group(s): General Public.
- h. Language(s) spoken and written: English and Siswati.
- i. Other Relevant Information: Currently engaged in identifying areas of need for reforestation, and environmental protection for energy purposes.

TANZANIA

1. Name: Mr. John Izahack BOSHE
 - a. Academic Qualifications: B.Sc. Agr. (Hons), M.Sc.
 - b. Professional Address: The College of African Wildlife Management
Mweka, Box 3031, Moshi, Tanzania.
 - c. Professional Title: Wildlife Ecologist.
 - d. Academic Discipline: Ecology and Management of Large Mammals.
 - e. Main Environmental Interest: Wildlife-Human Interactions.
 - f. Current Environmental Activities:
Wildlife Training, Wildlife Utilization, Ecological Monitoring.
 - g. Level of Target group(s): General Public, College/University.
 - h. Language(s) spoken and written: English and Swahili.
 - i. Other Relevant Information: Attended short courses and seminar on Remote Sensing, Park Planning and Management and Administration.

2. Name: Mr. Wilfred Abdueli FOYA
 - a. Academic Qualifications: B.Sc. - Wildlife Management (New Mexico State University, USA; M.Sc. Wildlife Biology (Colorado State University).
 - b. Professional Address: College of African Wildlife Management
Box 3031, Moshi, Tanzania.
 - c. Professional Title:
Senior Instructor, College of African Wildlife Management, Mweka.
 - d. Academic Discipline: Principles of Wildlife Management, Wildlife Management Techniques, Ornithology.
 - e. Main Environmental Interest:
Sustained Utilization of Natural Resources.
Wildlife Domestication.
Habitat Manipulation - Protection of Natural Forest, Planting of indigenous plants (trees) to areas that have been destroyed.
 - f. Current Environmental Activities:
Training middle level wildlife management officers. Consultancy duties in National Parks and Game Reserves (Tanzania). Unscheduled lectures/talks on conservation education to a variety of visitors (school parties and clubs) in Mweka.
 - g. Level of Target group(s):
General Public, Elementary School, High School/Vocational, College/University, Research & Other (e.g. farmers, pastoralists).
 - h. Language(s) spoken and written: English, Swahili and Chaaga

3. Name: Mr. Godfrey L. KAMUKALA

- a. Academic Qualifications: Diploma in Environmental Protection.
B.A (Hons) University of East Africa.
M.A. (Planning) University of Nairobi.
- b. Professional Address: National Environmental Management Council
Box 20671, Dar es Salaam, Tanzania.
- c. Professional Title: Physical/Environmental Planner.
- d. Academic Discipline: Geography, Ecology and Environmental Studies.
- e. Main Environmental Interest:
Geography, Ecology & Environmental Studies.
- f. Current Environmental Activities:
In-charge of the National Environmental Management Council, Coordinating all environmental activities in the country, liaising with international institutions on matters pertaining to environment.
- g. Level of Target group(s):
General Public, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English and Kiswahili.

4. Name: Mr. Bakari Neman Nassoro MBANO

- a. Academic Qualifications: B.Sc. Hons. Ed. Opt., Diploma Wildlife Management, M.Sc. Wildlife Terrestrial Ecology.
- b. Professional Address: College of African Wildlife Management
Box 3031, Moshi, Tanzania.
- c. Professional Title: Principal/Pilot
- d. Academic Discipline: Wildlife Management & Training/Research.
- e. Main Environmental Interest:
Interaction of wild animals and their habitats/vegetation.
- f. Current Environmental Activities:
Aerial surveys for monitoring: (1) Environment, (2) Vegetation, (3) Wild Animals/Livestock in national parks, game reserves and wildlife areas.
- g. Level of Target group(s):
General Public, Vocational, College & Others (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English, Swahili.

5. Name: Mr. Paul E. MMARI

- a. Academic Qualifications: Diploma in Wildlife Management, Mweka 1965, B.Sc. (Hons) UEA - Nairobi 1969, M. PL - Natural Resources, Queens University, Kingston, Ontario, Canada 1984.

- b. Professional Address: College of African Wildlife Management, Mweka
P.O. Box 3031, Moshi, Tanzania.
 - c. Professional Title: Wildlife ecologist/Senior instructor.
 - d. Academic Discipline: (a) Ecology and Management of large mammals and conservation and regional planning of natural resources.
 - e. Main Environmental Interest:
 - (a) Local/Regional Human - Wildlife interactions/conflicts.
 - (b) Resources utilization
 - (c) Conservation resource law
 - (d) Animal movements.
 - f. Current Environmental Activities:
 - (a) Teaching mammalogy, law and resource administration courses with relevance to conservation of wildlife/Natural resources.
 - (b) Talks on resource planning to various target groups (administrators, teachers, school clubs etc).
 - g. Level of Target group(s): General Public, Elementary School High School/Vocational, College/University, Research and other (e.g. farmers, pastoralists).
 - h. Language(s) spoken and written: English and Swahili.
 - i. Other Relevant Information: Attended short courses in Administration and "Man and the Biosphere".
6. Name: Dr. Hermann J. MWAGENI
- a. Academic Qualifications: M.Sc.(Forestry), Post-graduate Diploma (Wildlife Management), Ph.D (Wildlife Management).
 - b. Professional Address: College of African Wildlife Management, MWEKA
Box 3031, Moshi, Tanzania.
 - c. Professional Title: Senior Instructor.
 - d. Academic Discipline: Wildlife Management and Conservation Education.
 - e. Main Environmental Interest: Land-use Conflicts & Conservation Education.
 - f. Current Environmental Activities:
Land-use Conflicts and Conservation Education.
 - g. Level of Target Group(s): General Public & College/University.
 - h. Language(s) spoken and written: English, Swahili, & Hungarian.
 - i. Other Relevant Information: Project Manager of the two college study areas which deals with the day-to-day conservation problems facing those areas.

7. Name: Mr. Obadiah Manasseh NDOSI
- a. Academic Qualifications: Diploma in Wildlife Management (Mweka); B.Sc. (Hons) in Forestry, University of Dar-es-Salaam, Tanzania; M.Sc. Natural Resources Management - Colorado State University, USA.
- b. Professional Address: College of African Wildlife Management, Mweka, Box 3031, Moshi, Tanzania.
- c. Professional Title: Senior Lecturer.
- d. Academic Discipline: Resource and Environmental Interpretation. Environmental Impact Assessment. National Park Management and Planning. Conservation Education.
- e. Main Environmental Interest: Pollution control, Assessment of impacts to the environment. Degradation of Tropical Forests - Remedial action, soil erosion control - work in Dodoma (Hado project); maintenance and protection of rare, unique and endangered animal and plant species; some work in Usambara.
- f. Current Environmental Activities:
1. Have collected data on and currently writing a Report on The Impact of Grazing Livestock in Ngorongoro as well as analysing the consequences of Farming in Endulen, Olbalbal and Nainokanoka areas of Ngorongoro Conservation Area Authority.
 2. Engaged in Teaching Protected Area Management Planning and Interpretation. These areas include National Parks, Game Reserves, Forest Reserves and other related areas.
- g. Level of Target group(s): General Public, College/University, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: Kiswahili and English.

UGANDA

1. Name: Prof. Victor O. IBIKUNLE-JOHNSON.
- a. Academic Qualifications: B.Sc. (Hons), Ph.D., M. Inst. Env. Sc.
- b. Professional address: Faculty of Science
Institute of Teacher Education Kyambogo
P.O. Box 1
Kyambogo, UGANDA
- c. Professional Title: Prof. of Science Education, Dean, Faculty of Science.
- d. Academic Discipline: Physics, Environmental Management and Science Education.
- e. Main Environmental Interest: Environmental Education and Training, Environmental Management.

- f. Current Environmental Activities:
1. Teaching environmental education to teachers.
 2. Training programmes in environmental management.
 3. Research on environmental education, training, perception and management at the grassroots level.
 4. Writing textbook on EE for Teachers.
- g. Level of Target group: General Public, College/University Research, Other (e.g. farmers, pastoralists) and grassroots.
- h. Language spoken and written: English & Little French.
- i. Other relevant Information: First Chief of the EETU in UNEP (1976-81).
2. Name: Prof. KIWANUKA-SEMAKULA
- a. Academic Qualifications: Ph.D. PGD in Econ. Dev. (London & Oxford).
- b. Professional Address: P.O. Box 384
Kampala, Uganda.
- c. Professional Title: Research Professor, Makerere University.
- d. Academic Discipline: Economic-Development.
- e. Main Environmental Interest:
Environment and development.
- f. Current Environmental Activities:
Consultancy in Natural Resources.
- h. Language(s) spoken and written: English.
3. Name: Mr. Constantine OKELLO-OLENG
- a. Academic Qualifications: Dip. Ed. Makerere University, B.A., (Makerere University), M.A. (University of Nairobi).
- b. Professional Address: Ministry of Environment Protection
Box 9629, Kampala, Uganda.
- c. Professional Title: Physical and Environmental Planner.
- d. Academic Discipline: Physical and Environmental Planning.
- e. Main Environmental Interest:
1. Desertification Control.
 2. Human Environment.
- f. Current Environmental Activities:
1. Desertification Control as Focal Point.
 2. Human Settlement Planning.
- g. Level of Target group(s): General Public, College/University, Research & Other (e.g. farmers, pastoralists).

- h. Language(s) spoken and written: English
Land Developmental issues.
5. Name: Dr. Eldad M. TUKAHIRWA
- a. Academic Qualifications: MSc. PhD.
- b. Professional Address: Institute of Environment and Natural Resources
Makerere University
P.O. Box 7062
Kampala, Uganda
- c. Professional Title: Director.
- d. Academic Discipline: Zoologist - Applied Entomologist.
- e. Main Environmental Interest:
1. Environmental Pollution
2. Environmental Monitoring and Risk Analysis
3. Natural Resource Assessment
4. Environmental Impact Assessment.
- f. Current Environmental Activities:
1. Environmental Education.
2. Environmental Research (Pollution detection using biomonitors)
3. Environmental Impact Assessment.
- g. Level of Target group(s): General Public, College/University and Research.
- h. Language(s) spoken and written: English.

ZAMBIA

1. Name: Mr. Frank W. HILL
- a. Academic Qualifications: B. Arch. Dip. Arch.
- b. Professional Address: The Copperbelt University.
Box 21692, Zambia
- c. Professional Title: Dean.
- d. Academic Discipline: Environmental Studies (Architecture).
- e. Main Environmental Interest:
Architecture, Landscape.
- f. Current Environmental Activities:
Administration of the School of Environmental Studies.
- g. Level of Target group(s): General Public & Research.

- h. Language(s) spoken and written: English.

ZIMBABWE

1. Name: Mr. Charles R. CUTSHALL
- a. Academic Qualifications: Ph.D. (Boston University).
- b. Professional Address: Centre for Applied Social Sciences
University of Zimbabwe, P.O. MP 167
Mount Pleasant, Harare, Zimbabwe.
- c. Professional Title: Lecturer
- d. Academic Discipline:
Social Anthropology, African Studies, Quantitative Research Methods.
- e. Main Environmental Interest: Natural Resource Tenure Issues.
- f. Current Environmental Activities: The implementation of community-based programmes for the regulation, conservation and exploitation of indigenous natural resources in Zimbabwe's communal lands.
- g. Level of Target group(s): General Public, College/University & Research.
- h. Language(s) spoken and written: English, German.
2. Name: Ms. Rene LOEWENSON
- a. Academic Qualifications: B.Sc. Physiology and Psychology, Diploma Datamarks, M.Sc (Community Health in Developing Countries).
- b. Professional Address: Medical School, Box A178, Avondale, Harare, Zimbabwe
- c. Professional Title: Lecturer in Epidemiology.
- d. Academic Discipline: Community Medicine.
- e. Main Environmental Interest: Nutrition and Food Production.
Occupational Health & Toxicology.
- f. Current Environmental Activities:
1. Monitoring human & environmental exposure to pesticide use in Zimbabwe.
 2. Epidemiology of cancer in relation to environmental toxins.
- g. Level of Target group(s): College/University, Research and Workers.
- h. Language(s) spoken and written: English, and French.

3. Name: Prof. William Ronald MACKECHNIE
- a. Academic Qualifications:
B.Sc. (Eng) Cape Town, M.Sc. (Eng) London, DIC, FICE.
- b. Professional Address: Dept. of Civil Engineering, University of Zimbabwe
Box MP 167, Mount Pleasant, Harare, Zimbabwe.
- c. Professional Title: Professor.
- d. Academic Discipline: Civil Engineer.
- e. Main Environmental Interest:
Water resources, effluent disposal and solid waste disposal.
- f. Current Environmental Activities:
1. Monitoring tailings dams.
2. Rehabilitating mining areas.
- g. Level of Target group(s):
College/University, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English.
- i. Other Relevant Information: The Department has an establishment of 15 academic staff, 4 in Water, 3 in Soils/Materials, 4 in Structures, 3 in Transportation and 1 in Engineering Economics.
4. Name: Mr. R.B. MARTIN
- a. Academic Qualifications: B.Sc. (Hons), M.Sc.
- b. Professional Address: Dept. of National Parks and Wildlife Management
Box 8365, Causeway, Harare, Zimbabwe.
- c. Professional Title: Assistant Director (Research).
- d. Academic Discipline: Ecologist, Electrical Engineer.
- e. Main Environmental Interest:
Ecology - African ecosystems, management of large mammals.
- f. Current Environmental Activities:
Responsible for research programmes of 20 professional terrestrial ecologists and 10 aquatic ecologists in Zimbabwe.
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English.
5. Name: Mr. Thomas P.Z. MPOFU
- a. Academic Qualifications: M.Sc. Environmental Management.

- b. Professional Address: Department of Natural Resources
Box 8070, Causeway, Harare, Zimbabwe.
- c. Professional Title: Director of Natural Resources.
- d. Academic Discipline: Environmental planning & management with special emphasis on integrated resource planning and management.
- e. Main Environmental Interest:
 - 1. Integrated Land Use Planning.
 - 2. Evaluation of conservation projects.
 - 3. Creating environmental awareness among land users.
 - 4. Management of grazing areas.
- f. Current Environmental Activities:
 - 1. Holding workshops and seminars for land users.
 - 2. Developing policies and strategies for resource management in the entire country.
 - 3. Overall monitoring of environmental issues.
- g. Level of Target group(s):
General Public, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English.

6. Name: Prof. Marshall W. MURPHREE

- a. Academic Qualifications: B.A., B.D., M.A., Ph.D.
- b. Professional Address: Centre for Applied Social Sciences
University of Zimbabwe,
P.O Box 167,
Mount Pleasant, Harare, Zimbabwe.
- c. Professional Title:
Professor and Director, Centre for Applied Social Sciences.
- d. Academic Discipline: Anthropology/Sociology.
- e. Main Environmental Interest: Natural resource utilization/management, with particular reference to wildlife/fishery resources. Emphasis on common property/communal land contexts.
- f. Current Environmental Activities:
Extensive research on above topics in Zimbabwe communal lands. Director of large research team working on this topic.
- g. Level of Target group(s):
College/University, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written:
Fluent - English, Shona; Fair - French; Rough - Portuguese

7. Name: Dr. Naison MUTIZWA-MANGIZA
- a. Academic Qualifications: MA, MPhil PhD (Geography, Land Economy, University of Cambridge U.K.), Cert. in Environmental Control and Public Health (open University, U.K).
- b. Professional Address: Dept. of Rural & Urban Planning
University of Zimbabwe
P.O. Box MP 167 Mt. Pleasant
Harare, Zimbabwe.
- c. Professional Title: Lecturer.
- d. Academic Discipline: Rural & Urban Planning.
- e. Main Environmental Interest:
Rural Water Supply and Sanitation.
- f. Current Environmental Activities:
1. Planning Rural water and sanitation programmes - research and consultancy.
 2. Community training for rural water supply and sanitation implementation - research and consultancy.
 3. Postgraduate teaching.
- g. Level of Target group(s): General Public, College/University and Research (NGOs/Govt).
- h. Language(s) spoken and written: English.
8. Name: Nobbert T. NGONGONI
- a. Academic Qualifications: Diploma in Agric; B.Sc. Agric, M Sc. Agric.(Animal Nutrition) PhD Agric. (Animal Nutrition).
- b. Professional Address: Department of Animal Science
University of Zimbabwe
Box MP 167 MT Pleasant
Harare Zimbabwe.
- c. Professional Title: Lecturer and Chairman of Dept.
- d. Academic Discipline: Animal nutrition.
- e. Main Environmental Interest:
Utility of protein to livestock grazing or supplementary feed while grazing.
- f. Current Environmental Activities:
Intentions to monitor nutritive value of grazing on the University farm.
- g. Level of Target group(s): Research.
- h. Language(s) spoken and written: English.

9. Name: Dr. Christopher Obert RAMBANAPASI
- a. Academic Qualifications: B.A. (Hons) Geography, M.A. Urban and Regional Planning, Ph.D. Urban and Regional Planning.
- b. Professional Address: Dept. of Rural and Urban Planning
University of Zimbabwe, Box MP 167,
Mount Pleasant, Harare, Zimbabwe.
- c. Professional Title: Lecturer/Planner.
- d. Academic Discipline:
Urban and Regional Planning, also called Environmental Planning.
- e. Main Environmental Interest:
Land capability classification to prevent the use of unsuitable landforms for agricultural purposes in Africa which potentially leads to an Ethiopian type situation.
- f. Current Environmental Activities:
1. Research on sub-national, regional development policies in the SADCC countries.
 2. Research into the extent to which environmental factors are incorporated into the physical plans of Zimbabwe.
 3. Writing a book on Environmental Resources in Zimbabwe
- g. Level of Target group(s): Elementary School, High School/Vocational, College/University, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English, Shona/Ndebele.
10. Name: Dr. Peter K. RUNYOWA
- a. Academic Qualifications: M.B., Ch.B (Birm) M.Sc. (London).
- b. Professional Address: Dept. of Community Medicine
University of Zimbabwe, Medical School
Box MP 178,
Avondale, Harare, Zimbabwe.
- c. Professional Title: Lecturer/Chairman of Dept. of Community Medicine.
- d. Academic Discipline:
Communicable diseases control, environmental health and epidemiology.
- e. Main Environmental Interest:
Working environment, urban and rural.
- f. Current Environmental Activities:
Agrochemical project in farms.
- g. Level of Target group(s): General Public, College/University, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English.

11. Name: Prof. Michael Andrew SCHWEPPENHAUSER
- a. Academic Qualifications: B.Sc. (Agric), M.Sc. (Agric), D.Sc. (Agric).
- b. Professional Address: University of Zimbabwe, Box MP 167,
Mount Pleasant, Harare, Zimbabwe.
- c. Professional Title: Professor.
- d. Academic Discipline: Plant Breeding & Genetics.
- e. Main Environmental Interest: Protection of indigenous flora and fauna in Zimbabwe and watershed areas.
- f. Current Environmental Activities: Member of National Parks and Wild Life Board, Chairman of Dept. of Crop Science, Faculty of Agriculture, University of Zimbabwe.
- g. Level of Target group(s): General Public, High School/Vocational, College/University, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English.
12. Name: Mr. Andrew M. SIGOBODHLA
- a. Academic Qualifications: B.A (Econ.) (U.B.S) M.A. Econ (Leicester University).
- b. Professional Address: Ministry of Finance
Economic Planning and Development
P.Bag 7705,
Causeway Harare
Zimbabwe
- c. Professional Title: Under-Secretary for Planning.
- d. Academic Discipline: Economist.
- e. Main Environmental Interest:
1. The control of overall environmental degradation in conditions of equitable economic growth and development. Mainly interested in the protection of forest and soil resources and their regeneration in the interests of sustainable growth and development.
- f. Current Environmental Activities: Currently assisting our provincial planning committees in recognizing the importance of soil and forest resources to their planning and development and the need to preserve them in the interests of sustainable growth and development.
- g. Level of Target group(s): General Public, Research & Other (e.g. farmers, pastoralists).
- h. Language(s) spoken and written: English.

i. Other Relevant Information: Carrying out some research work on forests within Zimbabwe as a matter of my own personal interest and this information will benefit our planning and economic management in Zimbabwe.

13. Name: Prof. Michael John SWIFT

a. Academic Qualifications: M.A. (Cantab), Ph.D. (London).

b. Professional Address: Dept. of Biological Sciences, University of Zimbabwe
Box MP167, Harare, Zimbabwe.

c. Professional Title: Professor.

d. Academic Discipline: Ecology.

e. Main Environmental Interest: Soil biology, nutrient cycling; decomposition processes; savanna ecology; agro-ecosystems.

f. Current Environmental Activities: Studies of nutrient cycling in agricultural and forestry systems derived from savannah.

g. Level of Target group(s):
College/University, Research & Other (e.g. farmers, pastoralists).

h. Language(s) spoken and written: English and French.

14. Name: Mr. J.R. WHITLOW

a. Academic Qualifications: B.A. (Hons) London in Geography, M.Phil (Reading), Ph.D. due for submission Sept 1988 (London).

b. Professional Address: Dept. of Geography, University of Zimbabwe
Box MP 167, Harare, Zimbabwe.

c. Professional Title: Lecturer.

d. Academic Discipline: Applied Geography.

e. Main Environmental Interest:
Soil erosion & conservation & environmental impacts of mining.

f. Current Environmental Activities:
Recently completed environmental impact study on large open-cast gold mine near a small town north of Harare.

g. Level of Target group(s): College/University, Research & Farmers.

h. Language(s) spoken and written: English.

15. Name: Dr. Kadmiel Harrison WEKWETE

a. Academic Qualifications:
B.A.(Hons) Leeds University, UK; M.A. (Environmental Planning) Nottingham, UK; Ph.D. (Regional Planning) London, UK.

- b. Professional Address: Dept. of Rural and Urban Planning
University of Zimbabwe, Box 167, Mount Pleasant
Harare, Zimbabwe.
- c. Professional Title: Lecturer; Deputy Dean, Faculty of Social Studies.
- d. Academic Discipline: Urban and Regional Planning.
- e. Main Environmental Interest:
Urban and Rural Land Use/Settlement Planning.
Regional Resource Planning.
Land/Resource Law.
- f. Current Environmental Activities:
Land ownership/land use planning in urban areas in Zimbabwe.
Rural resources planning with a focus on post-independence resettlement
schemes.
- g. Level of Target group(s): College/University and Research.
- h. Language(s) spoken and written: English, Shona.
- i. Other Relevant Information: Involved in a variety of short courses
offered to Government Officials in Zimbabwe.

C H A P T E R F O U R

OTHER PERSONNEL ENGAGED IN ENVIRONMENTAL
TRAINING IN TERTIARY LEVEL INSTITUTIONS IN AFRICA

CHAPITRE QUATRE

AUTRES PERSONNELS TRAVAILLANT DANS LE DOMAINE
DE LA FORMATION SUPERIEURE EN ENVIRONNEMENT
DANS LES ETABLISSEMENTS D'AFRIQUE

CHAPTER FOUR

OTHER PERSONNEL ENGAGED IN ENVIRONMENTAL
TRAINING IN TERTIARY LEVEL INSTITUTIONS IN AFRICA

Individuals listed in this Chapter (by country) are requested to complete Annex II and forward it to UNEP for inclusion in the next edition of the directory.

ALGERIA

Mr. Le Professeur Abdelkader Gaid
Institut de Chimie Industrielle
Université des Sciences et de la Technologie
Houari Boumediene
BP 32 El-Alia Bab-Ezzour
W. D'Alger

Mme Le Professeur Ghania Nezzal
Institut de Chimie Industrielle
Université des Sciences et de la Technologie
Honavi Boumediene
BP 26 El-Alia Bab-Ezzouar
W. D'Alger

BENIN

Professeur Francis Flash Dessour
Chef du Département de Géographie
Université Nationale du Bénin
B.P. 526
Abomey-Calavi

BOTSWANA

Dr. R.M.K. Silitchena
Dept of Enviromental Science
University of Botswana
P/Bag 0022
Gaborone

Professor Wilkinson
Head, Dept. of Biology
University of Botswana
P/Bag 0022
Gaborone

Dr. J. McK R. Woolland
Head, Dept of Chemistry
University of Botswana
P/Bag 0022
Gaborone

BURKINA FASO

Mr. Leon Okio
Director General
CRTO
B.P. 1762
OUAGADOUGOU

Ms. Françoise Ribot
CRTO/DF
B.P. 1762
OUAGADOUGOU

CAMEROON

Professeur M. Sala-Diakenda
Directeur
Institut de Formation et de Recherche Démographique (IFORD)
B.P. 1556
YAOUNDE

CONGO

Professeur André Boudzoumou
Director of Studies
Ecole Supérieure (Sociale et Politique) du Parti
Samora Machel de Brazzaville
B.P. 1118
BRAZZAVILLE

EGYPT

Prof. Dr. Samir N. Ahmed
Dean, Faculty of Arts
Menoufia University
Shebien El Koom
Menoufia Governorate
Cairo

EGYPT (CONT'D)

Dr. Salah Abdel Gaber Eisa
Chairman, Geography Dept
Menoufia University
Shebien El Koom
Menoufia Governorate
Cairo

Dr. Hamdy Elbanna
Lecturer in Science Education
Mansoura University
Mansoura

Dr. Prof. M.M. El-Gohary
Dean, Institute of African Research & Studies
Cairo University
12613 Giza
CAIRO

Professor Taalat H. Abd El-Raheem
Mansoura University
Mansoura

Dr. Magda El Kady
Sociology Dept.
Menoufia University
Shebien El Koom
Menoufia Governorate
Cairo

Dr. Fathi Khattab
Geography Dept
Menoufia University
Shebien El Koom
Menoufia Governorate
Cairo

Dr. Wadia Radwan
Sociology Dept
Menoufia University
Shebien El Koom
Menoufia Governorate
Cairo

Professor Mohsen A. Tawafik
Dean, Institute of Environmental Sciences and Research
Ain Shams University
Abbasia
Cairo

GHANA

Mr. W.K. Ahadzie
Dept. of Building Technology
UST Kumasi
Kumasi

Professor George Beneh
Dept of Geography
University of Ghana
Legon
Accra

Prof. S. Asamoah Darko
Dept. of General and African Studies
UST
Kumasi

Dr. L.J. Gyamfi-Fenteng
Dept. of Geography
University of Cape Coast
Cape Coast

Dr. C.K. Kankam
Programme Coordinator
Dept of Civil Engineering
UST
Kumasi

Dr. Angelina Mensah
Head, Dept. of Botany
University of Ghana
P. Box 55 Legon
ACCRA

Dr. J. G. Monney
Course Director
Dept. of Civil Engineering
UST
Kumasi

Dr. J. Oko-Akushie
Dept. of Building Technology
UST
Kumasi

Dr. Samuel Oteng-Seifah
Head, Building Technology
UST
Kumasi

Mr. J.G.K. Owusu
Institute of Renewable Natural Resources
UST
Kumasi

GHANA (CONT'D)

Dr. Kofi Sraku-Lartey
Institute of Mining and Mineral Engineering
UST
Kumasi

Dr. E.K.A. Tamakloe
Associate Professor
Dept. of Planning
Faculty of Environmental and Development Studies
UST
Kumasi

Prof. Martha Tamakloe (Mrs)
Dean, Faculty of Environmental and Development Studies
UST
Kumasi

Prof. Austin Tetteh
Head, Dept of Planning
Faculty of Environmental and Development Studies
UST
Kumasi

Mr. A. Twum
Head, Dept. of Agricultural Engineering
UST
Kumasi

Mr. W.K. Woyome
Head, Dept. of General and African Studies
UST
Kumasi

KENYA

Mr. M.O. Akech
Ecologist
Lake Basin Development Authority
P.O. Box 1516
Kumasi

Mr. Rawtta Athiambo
Lake Basin Development Authority
P.O. Box 1516
Kisumu

Prof. Njoroge
Dean, Faculty of Education
Kenyatta University
P.O. Box 43844
Nairobi

KENYA (CONT'D)

Mr. S.B. Obura
Managing Director
Lake Basin Development Authority
P.O. Box 1516
Kisumu

Prof. Dr. M.F. Saad
Director
African Institute for Higher Technical Training and Research
P.O. Box 53763
Nairobi

MAURITIUS

Mr. M. Allybokus
Dept. of Pure Science
University of Mauritius
Réduit

Prof. G.T.G. Mohamedbhai
Civil Engineering Division
University of Mauritius
School of Industrial Technology
Réduit.

MAURITANIA

Dr. Mohamed B. M. Nasser
Chef du Département de Géographie
Faculté des Lettres et Sciences Humaines
B.P. 2095
Nouakchott

NIGERIA

Dr. J.A. Abalaka
Biochemistry Dept.
FUT Minna
Niger State

Mr. T.Z. Adama
Animal production Dept.
FUT Minna
Niger State

Prof. D.O. Adefolalu
Prof. Meteorology/Climatology
FUT Minna
Niger State

Dr. J. O. Adeniyi
Geophysics Dept.
FUT Minna
Niger State

NIGERIA (CONT'D)

Dr. B.A. Adepaju
Civil engineering Dept.
FUT Minna
Niger State

Prof. F.E. Adeyemi
Ahmadu Bello University
Zaria

Mr. K.A. Adisa
School of Eng. and Eng. Technology
FUT Minna
Niger State

Dr. O.C. Agukoronye
Dept. of Urban and Rural Planning
ASUTECH
Independence Layout
PMB 01660
Enugu
Nigeria

Dr. Malik Ahmed
Department of Geography
Bayero University, Kano
PMB 3011
Kano

Dr. A.C. Ajibade
Geology Dept.
FUT Minna
Niger State

Dr. (Mrs) H.O. Akanya
Biochemistry Dept.
FUT Minna
Niger State

Dr. J.N. Akanya
Chemistry Dept.
FUT Minna
Niger State

Dr. F.O.R Akingbo
Dept. of Soil Science
University of Nigeria Nsukka

Prof. J.M. Baba
Professor of Urban & Regional Planning
Geography Dept.
FUT Minna Niger State

Mr. S.Y. Bassi
Agric. Engineering Dept.
FUT Minna
Niger State

NIGERIA (CONT'D)

Mr. S.A. Bola
Chief Technologist
Hydraulic Engineering Laboratories
Faculty of Engineering
University of Lagos
Akoka, Yaba
Lagos

Dr. S.P. Braide
Geology Dept.
FUT Minna
Niger State

Dr. G.K.A. Buahin
FAO Advisor on Locusts and Grasshoppers, N.E. Nigeria
c/o Dept. of Biological Sciences
University of Maiduguri
PMB 1069
Maiduguri, Borno State

Dr. M.A. Daniyan
Dean, School of Science & Science Education
FUT Minna
Niger State

Arch N. M. David
Anambra State University of Technology
Independence Layout
PMB 01660
Enugu

Dr. S.A. Ekwelie
University of Nigeria
Nsukka

Dr. M. A. El-Kordy
Physics Dept.
FUT Minna
Niger State

Prof. E.N. Emenike
ASUTECH
Independence Layout
PMB 01660
Enugu

Dr. O.O. Fasanya
Animal Production Dept.
FUT Minna
Niger State

Mr. E.S. Gana
School of Science and Science Education
FUT Minna
Niger State

NIGERIA (CONT'D)

Mr. F. S. Gana
Crops Production Dept.
FUT Minna
Niger State

Dr. S.A. Garba
Microbiology Dept
FUT Minna Niger State

Dr. Timothy A. Gbodi
Biochemistry Dept.
FUT Minna
Niger State

Dr. K. Ibe
Dept. of Geosciences
FUT Owerri
PMB 1526
Owerri

Prof. K.O. Iwugo
Faculty of Engineering
University of Lagos
Akoka, Yaba
Lagos

Dr. O.E. Lafe
Dept. of Hydraulic & Water Resources Engineering
Faculty of Engineering
University of Lagos
Akoka, Yaba
Lagos

Dr. V. Malicky
Mechanical Engineering Dept.
FUT Minna
Niger State

Mr. M. Ndoge
Dept. of Photogrammetry
RECTAS
OAU Campus
PMB 5545
Ile-Ile Oyo State

Prof. Nelson I. Ngoka
Dean, Faculty of Environmental Sciences
ASUTECH
Independence Layout
PMB 01660
Enugu

Dr. G.N. Nsofor
Geography Dept.
FUT Minna, Niger State

NIGERIA (CONT'D)

Dr. G.C. Nsude
School of Environmental Technology
FUT Minna
Niger State

Dr. G.I. Nwankwor
Dept. of Geosciences
FUT Owerri
PMB 1526
Owerri

Dr. N. M. Obinegbo
Dept. of Architecture
University of Nigeria Enugu Campus
Enugu

Mr. E.A. Ogunbayo
Ag. Head, Dept. of Photogrammetry
RECTAS
OAU Campus, PMB 5545
Ile Ife

Dr. P.O. Okeke
Reader Dept of Geosciences
FUT Owerri
PMB 1526
Owerri

Arc. Chris Oji
Head, Dept. of Architecture
University of Nigeria
Enugu Campus
Enugu

Dr. A.A. Oladimeji
Biology Dept.
FUT Minna
Niger State

Dr. (Ms) I.B. Olafimihan
Biology Dept.
FUT Minna Niger State

Dr. J.A. Oladiran
Crop Production Dept.
FUT Minna
Niger State

Prof. M. A. Olatunji
Chemistry Dept.
FUT Minna Niger State

NIGERIA (CONT'D)

Dr. U.G. Oleru
Dept. of Environmental Health
Faculty of Medicine
University of Lagos
Lagos

Dr. G.E.D. Omuta
Dept. of Geography & Regional Planning
Faculty of Social Sciences
University of Benin City
Benin City,
PMB 1154

Dr. K.R. Onifade
Chemical Eng. Dept.
FUT Minna
Niger State

Prof. I.C. Onwueme
Erosion Research Project
FUT Owerri
PMB 1526
Owerri

Dr. Antony Onyisi
ASUTECH
Independence Layout
PMB 01660
Enugu

Dr. B.I. Orji
Dept. of Animal Science
University of Nigeria Nsukka
Nsukka

Dr. E.S. Oyegoke
Hydraulic & Water Resources Engineering
Faculty of Engineering
University of Lagos
Akoka, Yaba
Lagos

Dr. S. Plonka
Animal Production Dept.
FUT Minna
Niger State

Prof. W. S. Richards
Head, Dept. of Biological Sciences
University of Maiduguri
PMB 1069 Maiduguri
Borno State

Dr. S. Sadiku
Civil Engineering Dept.
FUT Minnar,
Niger State

NIGERIA (CONT'D)

Dr. E.A. Salako
Head, Crop production Dept.
FUT Minna
Niger State

Dr. F.D. Sikoki
Fishery Dept.
FUT Minna,
Niger State

Prof. I.B. Sinha
Faculty of Env. Sciences
ASUTECH
Independence Layout
PMB 01660 Enugu

Mr. A. Soumare
Deputy Director
RECTAS
OAU Campus
PMB 5545
Ile-Ife

Dr. Z. Stecki
School of Agric. & Agric. Technology
FUT Minna
Niger State

Dr. M.A.T. Suleiman
Chemistry Dept.
FUT Minna
Niger Minna
Niger State

SIERRA LEONE

Dr. Ayah Gbakima
Njala University College
Private Mail Bag
Freetown

Dr. Wusu.Sannoh
Njala University College
Private Mail Bag
Freetown

SENEGAL

Mr. Amadou T. Ba
Director
Institute of Environmental Sciences
Faculty of Sciences
Cheikh Anta Diop Université de Dakar
Dakar

SENEGAL (CONT'D)

Mr. Yaya H. Diakite
African Institute for Economic Development & Planning (IDEP)
B.P. 3186
Dakar

Mr. Daniel K. Ghanshah
African Institute for Economic Development & Planning (IDEP)
B.P. 3186
Dakar

Mr. Louis Goffin
Institute of Environmental Science
Faculty of Sciences
Cheikh Anta Diop Université de Dakar
Dakar

Mr. H.M. Lo
Institute of Environmental Studies
Faculty of Sciences
Cheikh Anta Diop Université de Dakar
Dakar

Mr. Cheikh I. Niang
Institute of Environmental Sciences
Faculty of Sciences
Cheikh Anta Diop Université de Dakar
Dakar

Mr. Bienvenu Sambu
Institute of Environmental Sciences
Faculty of Sciences
Cheikh Anta Diop Université de Dakar
Dakar

Mr. S. Tekle-Tsadik
African Institute for Economic Development & Planning (IDEP)
B.P. 3186
Dakar

Mr. Thierry Vanderborcht
Institute of Environmental Sciences
Faculty of Sciences
Cheikh Anta Diop Université de Dakar
Dakar

Mr. Oumar Wane
Institute of Environmental Sciences
Faculty of Sciences
Cheikh Anta Diop Université de Dakar
Dakar

SUDAN

Dr. Abdel Ghaffar M. Ahmed
Institute of Environmental Studies
University of Khartoum
P.O. Box 321
Khartoum

Dr. Awad Haq Ali Ahmed
Dept. of Geography
University of Khartoum
P.O. Box 321
Khartoum

Dr. Sidique Awadalla
Dept. of Geography
University of Khartoum
P.O. Box 321
Khartoum

Dr. Amin Beshir
Institute of Environmental Studies
University of Khartoum
P.O. Box 321
Khartoum

Prof. M. D. El-Khalifa
Institute of Environmental Studies
University of Khartoum
P.O. Box 321
Khartoum

Dr. Basheer M. El Hassan
Institute of Environmental Studies
University of Khartoum
P.O. Box 321
Khartoum

Dr. Ali Awad El Khanim
Institute of Environmental Studies
University of Khartoum
P.O. Box 321
Khartoum

Dr. Sidding Umbadda
Institute of Environmental Studies
University of Khartoum
P.O. Box 321
Khartoum

ZIMBABWE

Mr. C.M. Brand
Dept. of Rural & Urban Planning
University of Zimbabwe
Box MP 167
Mount Pleasant
Harare

Dr. M.P. Grant
Dept. of Civil Engineering
University of Zimbabwe
Box MP 167 Mount Pleasant
Harare

Ms. Joan May
Centre for Applied Social Sciences
University of Zimbabwe
Box MP 167 Mount Pleasant
Harare

Dr. C.C. Mutambirwa
Dept. of Geography
University of Zimbabwe
Box MP 167 Mount Pleasant
Harare

Mr. L.B. Ndlovu
Dept. of Rural & Urban Planning
University of Zimbabwe
Box MP 167 Mount Pleasant
Harare

Dr. K.W. Nyamapfene
Chairman, Dept. of Soil Science
University of Zimbabwe
Box MP 167 Mount Pleasant
Harare

CHAPTER FIVE

UNEP CONSULTANTS FROM AFRICA REGION

CHAPITRE CINQ

EXPERTS DU PNUE ORIGINAIRES DE LA REGION AFRIQUE

CHAPITRE CINQ

EXPERTS DU PNUE ORIGINAIRES DE LA REGION AFRIQUE

Ce chapitre entend présenter, à titre d'exemples, les noms de spécialistes ou d'experts dont les services ont été mis à contribution, d'une manière ou de l'autre, dans la mise en oeuvre des travaux et des initiatives qui étaient soit parrainés, soit soutenus par le PNUE.

Il ne prétend donc nullement être exhaustif, et toute suggestion destinée à l'améliorer sera fortement appréciée.

CHAPITRE CINQ

EXPERTS DU PNUE ORIGINAIRES DE LA REGION AFRIQUE

Senior Advisers to the Executive Director of UNEP

Prof. M. El Kassas
Emeritus Professor of Botany
Faculty of Science
University of Cairo
Giza, Egypt

Dr. E. El Hinnawi
National Research Centre
El Tahrir Street
Dokki, Cairo
Egypt

Dr. Mansour Khalid
WCED, Palais de Wilson
52 rue de Paquies
CH-1201 Geneva
Switzerland

Mr. J. Omo-Fadaka
NGOs Environmental Network (ANEN)
P.O. Box 53844
NAIROBI

Professor E.A. Boateng
Environmental Consultancy Services
P.O. Box 84 Trade Fair Site
Accra, Ghana

Forestry Resources Management

Mr. Richard White
P.O. Box 59
Tsabong
Botswana

Mr. T. Boukatfa
c/o UNDP
P.O. Box 663
Tunis
Tunisia

Dr. John Aluma
Makerere University
P.O. Box 7062
Kampala
Uganda

Mr. John Carvalho (Ugandan)
Dept. of Forestry
University College of North Wales
Bangor
Gwyned LL57 2DG, U.K.

Mr. J. Mabonga-Mwisaka
P.O. Box 49365
Nairobi

Soil

Dr. A.T. Halm
Director
Soil Research Institute
Kumasi
Ghana

Professor J.Y.K Zake
Soil Science Dept.
Makerere University
P.O. Box 7062
Kampala
Uganda

Ms. M.J. Kamar
Moi University
P.O. Box 3900
Eldoret
Kenya

Professor S. Bhoojedhur
58 Royal Road
Rose Hill
Mauritius

SOIL (CONT'D)

Dr. M.P. Salema
Head
Soil Science Dept.
Sokoine University
Morogoro
Tanzania

Water Resources Management

Dr. M. Abu Zeid
Water Research Centre
22 El-Galaa St.
Bulaq, Cairo
Egypt

Mr. I.M. El-Ramly
P.O. Box 5118
Heliopolis West
Cairo
Egypt

Dr. M. M. Tawfik
Hydromet Survey
UNDP
P.O. Box 30128
Nairobi

Dr. Yahia A. Mageed
Associated Consultants-Consulting Engineers
P.O. Box 2960
Khartoum
Sudan

Dr. N.B. Ayibotele
Water Resources Research Institute
P.O. Box M. 32
Accra, Ghana

Information and Public Awareness

Mr. S. Galal
Al-Ahram Science Club
El-Galaa St.
Cairo
Egypt

Mrs. Honorine Kiplagat
c/o Ministry of Foreign Affairs
P.O. Box 30551
Nairobi

Mr. Richard Lumbe
10 Santa Barbara Flats
Clovelly Road
Chatcombe
Harare
Zimbabwe

Mr. James S. Mpinga
P.O. Box 2708
Arusha
Tanzania

Environmental Law

Professor C.O. Okidi
Dean, School of Environmental Studies
Moi University
P.O. Box 3900
Eldoret

Mr. B.N. Kamugasha
P.O. Box 4544
Kampala
Uganda

Environmental Education and Training

Mr. E.B. Rugumayo
P.O. Box 53063
Nairobi
Kenya

Dr. G. Nguru
P.O. Box 75166
Nairobi
Kenya

Prof. Saber Salim
10 Bashir Nema St.
Nozha, Heliopolis
Cairo, Egypt

Prof. Pai Obanya
Faculty of Education
University of Ibadan
Ibadan, Nigeria

Prof. Victor Johnson
Dean School of Science Kyambogo University College
Kampala, Uganda

Natural Resources Management

Mr. Reuben K. Sinanga
P.O. Box 47146
Nairobi, Kenya

Mr. John H. Kinuthia
Meteorology/Climatic Changes etc.
P.O. Box 30259
Nairobi, Kenya

Mr. H.A. Mwendwa
Natural Resources
Management/Desertification
P.O. Box 47146
Nairobi, Kenya

Mr. W.K. Ottichilo
Range Ecology Resources Planning
P.O. Box 47146
Nairobi, Kenya

Mr. Peter O. Aoko
Remote Sensing/Cartography
P.O. Box 47146
Nairobi, Kenya

Mr. Adnan Z. Amin
Development Economics
P.O. Box 25241
Nairobi, Kenya

Natural Resources Management (CONT'D)

Mr. Modibetsane
Development Planning
Dept. of Town and Regional Planning
P.O. Box 0042
Gaborone, Botswana

Mr. A. Gomba
Agricultural Engineering
Centre on Integrated Rural
Development for Africa
P.O. Box 6115
Arusha
Tanzania

Mr. C.J.M. Fayemi
Urban & Regional Planning
Villa 1037 SICAP Liberté I
BP 5017 Dakar,
Senegal

Dr. B.W. Gabrah
General Environmental Policy
Director, Environmental Protection Council
P.O. Box M. 326
Accra, Ghana

Dr. K.R. Alibhai
Renewable Engergy
P.O. Box 33027
Nairobi, Kenya

Dr. S.M. Loukina
State of Environment
20 Mishel Bakhum Street
Dokki
Cairo, Egypt

Mr. Michael Mwangi
Cartography
Nairobi University
P.O. Box 30197
Nairobi, Kenya

Mr. D.N. Kinyanjui
General Environment Policy
National Environment Secretariat
P.O. Box 67839
Nairobi, Kenya

Prof. S. Maro
Geography/Natural Resources Development
University of Swaziland
Kwaluseni
Swaziland

Natural Resources Management (CONT'D)

Prof. Richard S. Odingo
Geography/Natural Resources
Dept. of Geography
University of Nairobi
P.O. Box 30197
Nairobi, Kenya

Dr. J.M. Gathuma
Veterinary Policy
Faculty of Veterinary Medicine
P.O. Box 29053
Nairobi, Kenya

Dr. William Rugumamu
Geography/Natural Resources Management
Dept. of Geography
University of Dar es Salaam
P.O. Box 35049
Dar-es-Salaam
Tanzania

Mr. Philip Ndegwa
Development Economics
P.O. Box 60000
Nairobi, Kenya

Dr. Perez Olindo
Conservation/National Parks
Director of Wildlife Management Dept.
Ministry of Tourism
Nairobi, Kenya

Mr. Rowan B. Martin
Rangeland Management
Principal Ecologist
Dept. of National Parks & Wildlife
Management
P.O. Box 8363 Causeway
Harare, Zimbabwe

Prof. D. Wasawo
Natural Resources Management
Conservation/General
Environment Policy
P.O. Box 41024
Nairobi, Kenya

Mr. El Hag Mustaffa
Desertification
P.O. Box 1942
Khartoum, Sudan

Mr. Peter Moonga
Natural Resources Management
Deputy Director
Dept. of Natural Resources
Ministry of Lands & Natural Resources
P.O. Box 50042
Lusaka, Zambia

Natural Resources Management (CONT'D)

Dr. E. Tukahirwa
Entomology/Training
Makerere University
P.O. Box 7062
Kampala, Uganda

Mr. Frank Turyatunga
Resource Management
Ministry of Environment Protection
P.O. Box 4544
Kampala, Uganda

Dr. G. Karrar
Desertification
P.O. Box 1218
Khartoum, Sudan

Mr. C.A. Kobge
Geology/Engineering
Rockview, Plot 1234
Km 8 Yakubu Gowon Way
Zaramaganda
P.O. Box 1188
Jos, Nigeria

Mr. David Tlaba
Cartography
P.O. Box 119
Maseru
Lesotho

Dr. Mukasa Mango
Tse-tse fly control
P.O. Box 51206
Nairobi, Kenya

Prof. D.E.B. Chaytor
Oceanography
Fourah Bay College
University of Sierra Leone
Freetwoen, Sierra Leone

Prof. Kokwaro
Terrestrial Ecosystems
University of Nairobi
P.O. Box 30167
Nairobi

ANNEXE I

QUESTIONNAIRE

ESTABLISHMENT OF AFRICAN NETWORK FOR
TERTIARY LEVEL ENVIRONMENTAL TRAINING

1. Name of Institution:.....
.....

2. Address:.....
.....

3. Telephone:.....Telex:.....

4. Programme/s:

4.1 Does your institution offer:

Yes No

Courses in environment	_____	_____
Courses with environmental components	_____	_____
General courses in environmental awareness for decision-makers and policy-makers	_____	_____

4.2 Please give details of course/s offered in environmental training.

Field of environmental training

Chemical Safety	_____	_____
Control of Environmental Hazards	_____	_____
Desertification Control	_____	_____

	<u>Yes</u>	<u>No</u>
Energy Technology	_____	_____
Environmental Aspects of Geology (Mining)	_____	_____
Environmental Design	_____	_____
Environmental Impact Assessment	_____	_____
Environmental Management	_____	_____
Environmental Technology/Engineering	_____	_____
Forestry	_____	_____
Forestry Resources and Management	_____	_____
Industry and Environment	_____	_____
Marine Environmental Science	_____	_____
Natural Resources	_____	_____
Soil Conservation and Management	_____	_____
Water and Water Resources Management	_____	_____
Wildlife Management and Conservation	_____	_____
Other Courses:		
.....		
.....		
.....		

Course Description Sheet

4.3 For each of the above courses where you have answered yes, please give the following details:

- Exact title of course:.....
- Normally starts (month.....), Normally ends (month.....)
- Number of students admitted at a time:.....
- Academic entrance requirements:.....
-

Course Description Sheet (CONT'D)

Other requirements (e.g. profile of student):.....
.....

Specify type of award at completion of course: Certificate: _____
Diploma: _____
Degree: _____

Bachelors _____

Masters _____

Ph.D. _____

Cost to student sponsor US\$.....

Admission to course, normally: by direct application from student _____

Sponsorship by Government/NGO _____

Level of Course.....

Objective of the training to be imparted:.....
.....

Department responsible for the course:.....

Name of Chairman/Dean/Professor, to whom enquiries may be addressed:
.....
.....

Name & title of official from whom admission forms may be obtained:
.....
.....

Any other relevant details:
.....
.....
.....

4.4 As far as the on-going programmes in environment are concerned, what is the state of:

	<u>Very good</u>	<u>Adequate</u>	<u>Not adequate</u>
a. Staffing:	___	___	___
b. Equipment & Infrastructure:	___	___	___
c. On-going research & development programme:	___	___	___
d. Availability of education and training facilities:	___	___	___

5. Additional information requested

5.1 Does the staff of your institution speak on radio, appear on television or write in the press on environmental issues? Yes ___ No ___

What environmental issues were discussed?

.....
.....
.....

5.2 Does your institution plan to start new courses programmes in environmental training in the future? Yes ___ No ___

If yes, please give a brief description of the proposed courses/programmes:

.....
.....
.....
.....
.....

5.3 Does your institution intend to modify existing programmes to include environmental components? Yes ___ No ___

If yes, in what areas?

.....
.....
.....
.....

5.4 Besides those names above, please give the names of any other persons in your institution who you feel should be contacted by us.

.....
.....
.....

6. Conclusion:

The long-term objective of the Network is to enable countries in the Africa region to produce a cadre of suitably qualified environmental personnel capable of preventing or minimizing further degradation of the regional environment and promoting sustainable development.

Is your institution prepared to collaborate further with UNEP's effort to achieve this aim? Yes ___ No ___

The information you have provided will be very useful in evaluating the state of environmental training in Africa.

When all the information collected is assembled, the results will be forwarded to you and to other contributors.

7. Name of person completing this Questionnaire:

Name:.....
Position held:.....
Signature:.....
Date:.....

Thank you very much for your collaboration.

Please mail to: Regional Representative & Director
Regional Office for Africa
United Nations Environment Programme (UNEP)
P.O. Box 30552
Nairobi
Kenya

ANNEXE I

Questionnaire

Création d'un réseau d'établissements de formation
supérieure en matière d'environnement en Afrique

1. Nom de l'établissement
-
2. Adresse
-
3. Téléphone Télex
4. Programme(s)
 - 4.1 Votre établissement offre-t-il: Oui Non

Des cours sur l'environnement	<input type="checkbox"/>	<input type="checkbox"/>
Des cours touchant à l'environnement	<input type="checkbox"/>	<input type="checkbox"/>
Des cours de caractère général visant à sensibiliser les cadres et dirigeants aux problèmes relatifs à l'environnement	<input type="checkbox"/>	<input type="checkbox"/>
 - 4.2 Renseignements sur la teneur des cours concernant l'environnement

<u>Formation en matière d'environnement</u>	<u>Oui</u>	<u>Non</u>
Sécurité des substances chimiques	<input type="checkbox"/>	<input type="checkbox"/>
Lutte contre les risques pour l'environnement	<input type="checkbox"/>	<input type="checkbox"/>
Lutte contre la désertification	<input type="checkbox"/>	<input type="checkbox"/>
Techniques énergétiques	<input type="checkbox"/>	<input type="checkbox"/>
Aspects environnementaux de la géologie (exploitation minière)	<input type="checkbox"/>	<input type="checkbox"/>
Aménagement de l'environnement	<input type="checkbox"/>	<input type="checkbox"/>
Evaluation d'impact sur l'environnement	<input type="checkbox"/>	<input type="checkbox"/>

<u>Formation en matière d'environnement</u>	Oui	Non
Gestion de l'environnement	/ /	/ /
Génie/technique de protection de l'environnement	/ /	/ /
Foresterie	/ /	/ /
Ressources forestières et gestion des forêts	/ /	/ /
Industrie et environnement	/ /	/ /
Etudes relatives au milieu marin	/ /	/ /
Ressources naturelles	/ /	/ /
Conservation et gestion des sols	/ /	/ /
Gestion des ressources en eau	/ /	/ /
Gestion et conservation de la nature	/ /	/ /
Autres cours		
.....		
.....		
.....		

Description des cours

4.3 Renseignements concernant les cours pour lesquels une réponse affirmative a été fournie:

Titre exact du cours

Normalement le cours commence au mois de et se termine au mois de

Nombre d'étudiants autorisés à assister au cours

Description des cours (suite)

Diplômes exigés

Autres conditions (par exemple, profil de l'étudiant).....

Type de grade décerné à l'issue du cours

Certificat

Diplôme

Licence Maîtrise Doctorat

Montant des frais d'étude à charge de l'établissement de parrainage
(en dollars des Etats-Unis)

Modalités d'inscription au cours:

Sur une demande présentée directement
par l'étudiant

Sur recommandation d'un gouvernement
ou d'une ONG

Niveau du cours

Objectifs visés par la formation

Département administrant le cours

Nom des président, doyen, professeur à qui les demandes doivent être
adressées

Nom et titre du fonctionnaire chargé de délivrer les formulaires
d'inscription

.....

Autres renseignements pertinents:

.....
.....
.....
.....

4.4. En ce qui concerne les programmes actuels en matière d'environnement,
comment jugez-vous:

Excellent/s Satisfaisant/s Médiocre/s

1. Les enseignants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Le matériel et l'infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Les programmes de recherche-développement en cours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Les installations d'enseignement et de formation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Renseignements supplémentaires

5.1 Le personnel de votre établissement a-t-il participé à des émissions à
la radio ou à la télévision et a-t-il écrit des articles sur des
questions d'environnement?

Oui

Non

Veillez préciser quelles questions relatives à l'environnement ont été abordées à cette occasion:

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

5.2 Votre établissement a-t-il l'intention d'offrir de nouveaux programmes d'études se rapportant à l'environnement.

Oui Non

/ / / /

Dans l'affirmative, veuillez décrire succinctement les cours ou programmes envisagés.

.....
.....
.....
.....
.....
.....

5.3 Votre établissement a-t-il l'intention de modifier ses programmes actuels pour y inclure des matières relatives à l'environnement?

Oui Non

Dans l'affirmative, veuillez préciser dans quels domaines.

.....
.....
.....
.....

5.4 En plus des noms cités plus haut, veuillez indiquer le nom de tout membre de votre personnel avec qui nous devrions nous mettre en rapport.

.....
.....
.....

6. Conclusion:

L'objectif à long terme du réseau est d'aider les pays africains à former un personnel compétent et ayant les aptitudes voulues pour arrêter ou atténuer la dégradation de l'environnement dans la région et, ce faisant, faciliter l'avènement d'un développement durable.

Votre établissement est-il disposé à collaborer davantage avec le PNUÉ à cet effet?

Oui Non

Les renseignements que vous voudrez bien nous fournir nous seront très utiles pour évaluer l'état de la formation en matière d'environnement en Afrique.

Dès que toutes les réponses nous seront parvenues et auront été analysées, nous vous communiquerons nos conclusions, de même qu'aux autres participants.

7. Nom de la personne ayant rempli le présent questionnaire:

.....

Fonctions:

Signature:

Date:

Nous vous remercions vivement de votre concours.

Veillez retourner le présent questionnaire à l'adresse ci-après:

Regional Representative and Director
Regional Office for Africa
United Nations Environment Programme (UNEP)
P.O. Box 30552
Nairobi
Kenya

ANNEX II

UNITED NATIONS ENVIRONMENT PROGRAMME

ESTABLISHMENT OF AFRICAN NETWORK FOR TERTIARY LEVEL ENVIRONMENTAL TRAINING INFORMATION FORM FOR PERSONNEL ACTIVE IN ENVIRONMENTAL TRAINING

1. Name:.....
2. Academic Qualifications:.....
.....
.....
3. Professional Address:.....
.....
.....
4. Professional Title:.....
.....
5. Academic Discipline:.....
.....
.....
6. Main Environmental Interest:.....
.....
.....
.....

ANNEX II (CONT'D)

7. Current Environmental Activities:.....
.....
.....
.....
.....
8. Level of Target groups(s): General Public _____
(Please tick where Elementary School _____
appropriate) High School/Vocational _____
College/University _____
Research _____
Other (e.g. farmers, pastoralists) _____
9. Language(s) spoken and written:.....
10. Other Relevant Information:.....
.....
.....
11. Signature:..... Date:.....

ANNEXE II

PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT

Création d'un Réseau d'établissements de Formation Supérieure en Afrique

Formulaire à remplir par les personnels travaillant dans le domaine de la formation en matière d'environnement.

1. Nom
2. Titres universitaires
.....
3. Adresse de travail
.....
4. Titre
5. Discipline universitaire
6. Principal thème d'intérêt d'environnement
7. Activités menées actuellement en matière d'environnement:
8. Niveau du (des) groupe(s) cible(s) - (cocher) -
Grand public _____ Ecole primaire _____
Ecole secondaire _____ Enseignement professionnel _____
Collège/Université _____ Recherche _____
Autres (par ex. agriculture, pasteurs) _____
9. Langue(s) Parlée(s) et écrite(s)
10. Autres renseignements:
11. Signature: Date:

ANNEX III

UNITED NATIONS ENVIRONMENT PROGRAMME - UNEP

QUESTIONNAIRE FORMAT

AMCEN NETWORK FOR TERTIARY LEVEL ENVIRONMENTAL TRAINING INSTITUTIONS

(The information you will supply in this questionnaire will be used in compilation and updating of A Regional Directory of African Tertiary Level Environmental Training Institutions, Programmes and Resource Persons)

Name of Institution: _____

Address _____

Telephone _____ Telex _____

a. Department/s responsible for environmental courses/programmes

b. Environmental programmes/courses offered

c. Course objectives

d. Environmental profile of the course/s (attach extra pages if necessary)

e. Academic entry requirements:

f. Other entry requirements

g. Number of Students admitted at a time

h. Academic year (beginning and end)

i. Duration of training

j. Type of award/s at completion (e.g diploma, degree, certificate)

k. Cost of course (US\$)

- l. Sponsorship (Govt/NGO/private (delete where not applicable))
- m. Staffing - Not adequate/adequate/very good (delete where not applicable)
- n. Equipment and infrastructure: Not adequate/adequate/very good
(delete where not applicable)
- o. On-going research and development/ Programme Not adequate/adequate/very good
(delete where not applicable)
- p. Availability of education and training facilities: Not adequate/adequate
/very good (delete where not applicable)
- q. Proposed future courses

- r. Institutional participation in environmental awareness building among the public

- s. Willingness to join UNEP environmental Training Network (Yes/no)
delete where not applicable

- t. Name and title of official to whom enquiries may be addressed

- u. Name and title of person from whom admission forms may be obtained

v. Names and addresses of professional colleagues who you think would be interested in environmental training.

w. Name and title of person completing this questionnaire

x. Signature and date -----

Thank you for completing this questionnaire.

Please mail the completed questionnaire to:

The Director and Regional Representative
Regional Office for Africa
P.O. Box 30552
Nairobi
Kenya

ANNEXE III

PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT - PNUE

QUESTIONNAIRE

ETABLISSEMENTS DE FORMATION SUPERIEURE EN MATIERE D'ENVIRONNEMENT

Les renseignements qui vous sont demandés dans ce questionnaire seront utilisés pour compiler et mettre à jour un Répertoire régional des Etablissements, des programmes et des personnels chargés de la formation supérieure en matière d'environnement.

Nom de l'établissement: _____

Adresse _____

Téléphone _____ Téléx _____

a. Département(s) chargé(s) des cours/programmes dans le domaine de l'environnement

b. Programme/cours offerts en matière d'environnement

c. Objectifs du/des cours

d. Profil écologique du/des cours: (ajouter d'autres pages s'il y a lieu)

e. Diplômes exigés:

f. Autres conditions d'admission

g. Nombre d'étudiants par promotion

h. Année académique (début et fin)

i. Durée de la formation

j. Sanction/s à la fin des études (ex.: diplôme, grade, certificat)

k. Coût des études (en dollars des Etats-Unis)

- l. Bourses d'études: (de l'Etat / des ONG / privées)*
- m. Personnel: Non satisfaisant/satisfaisant/excellent*
- n. Matériel et infrastructure: Non satisfaisant/satisfaisant/excellent*
- o. Programme de recherche et développement en cours: Non satisfaisant/satisfaisant/excellent*
- p. Existence d'installations de formation/éducation: Non satisfaisant/satisfaisant/excellent*
- q. Nouveaux cours proposés

- r. Participation de l'établissement à la sensibilisation du public aux questions relatives à l'environnement

- s. Etes-vous disposés à entrer dans le réseau de formation en matière d'environnement mis en place par le PNUÉ (Oui / Non)*
- t. Nom et titre du responsable chargé de recevoir les demandes de renseignements

- u. Nom et titre du responsable chargé de distribuer les fiches d'inscription

* Rayer la/les mention (s) incorrecte (s)

v. Nom et adresse des collègues qui pourraient, à votre avis, s'intéresser à la formation en matière d'environnement.

w. Nom et titre de la personne ayant rempli ce formulaire

x. Signature et date -----

Merci d'avoir répondu à ce questionnaire.

Veillez l'expédier une fois rempli, à l'adresse suivante:

Monsieur le Directeur et Représentant Régional
Bureau Régional pour l'Afrique
P.O. Box 30552
Nairobi
Kenya