



NATIONAL OPEN UNIVERSITY OF NIGERIA

SCHOOL OF SCIENCE AND TECHNOLOGY

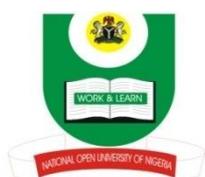
COURSE CODE: EHS 505

COURSE TITLE: ENVIRONMENTAL HEALTH ETHICS

**COURSE
GUIDE**

**EHS 505
ENVIRONMENTAL HEALTH ETHICS**

Course Team Dr. S. A. Ojewale (Course Developer/Writer) -
EHORECON, Ibadan.
Prof. A. Afolabi (Programme Leader) -NOUN
Dr. O. S. Ibrahim (Course Coordinator) – NOUN



NATIONAL OPEN UNIVERSITY OF NIGERIA

National Open University of Nigeria
Headquarters
14/16 Ahmadu Bello Way
Victoria Island, Lagos

Abuja Office
5 Dar es Salaam Street
Off Aminu Kano Crescent
Wuse 11, Abuja

e-mail: centralinfo@nou.edu.ng

URL: ww.nou.edu.ng

Published by
National Open University of Nigeria

Printed 2014

ISBN: 978-058-126-X

All Rights Reserved

CONTENTS**PAGE**

Introduction	iv
What you will Learn in this Course	vi
Course Aims	vii
Course Objectives	vii
Working through this Course	viii
Course Materials	viii
Study Units	viii
Textbooks	ix
Assignment File	x
Tutor-Marked Assignments	x
Final Examination and Grading	x
Presentation Schedule.....	xi
Assessment	xi
How to Get the Most from this Course	xi
Facilitators/Tutors and Tutorials	xiii
Summary	xiii

INTRODUCTION

EHS 505: Environmental Health Ethics is a course that carries two credit units for students pursuing the BSc Environmental Health. The course consists of 11 units that involve the basic concepts in science and environmental health.

Public health policy and interventions is always the product of controversy and often remain surrounded by controversy as they are implemented. Routinely in public health of which (environmental health is a branch) scientific consideration blend with political and ethical conflicts, and questions of autonomy, individual rights, coercion, justice, community, the common goal, the normal of research and multicultural values are central.

In public health today, several different types of political and moral theory overlap, converge and centred with one another, including libertarian liberalism, egalitarian liberalism, utilitarianism, human rights frameworks and communitarianism.

Ethical issues are rarely neat, tidy or cut and dried. Public health and environment health problems often pose ethical dilemmas rather than mere moral questions. What you will read in this course may not offer clear cut answers to many of the ethical issues but will provide you with many perspectives on the issues and also guide your reasoning processes toward conclusion to open up a dialogue with others.

What is Ethics?

Terms like ‘ethics’, ‘morals’, ‘morality’ and ‘values’ are common ethical concepts. Ethics and morals are often used interchangeably; so that the sentence – “He acted ethically” and the sentence “He acted morally” mean the same thing. Sometimes though morality (or morals) is defined as the beliefs and standards of good and bad, right and wrong, that people actually do and should follow in a society, while ethics is defined as the systematic study of morality. Ethics in other words, is the theory and morality in the practice: morality is what people do and believe, ethics gives a philosophical account of justified behaviour and belief.

Moral values are those things that people should prize and promote. Values are names for states of affairs that conform to what is ethically right and that further human good or the good of all beings understood as the systematic study of morality, ethics is often divided into two subfields – meta ethics and normative ethics. The relationship between them may be compared to the relationship between the philosophy of science, on one hand and science itself on the other.

Meta-ethics tries to clarify the rational standards and methods for the study of ethics much as philosophy of science tries to clarify the nature and method of scientific inquiry. Normative ethics is where the substance of ethics resides. It develops ethical principles, rules and ideas that spell out standards of good and bad, right and wrong. Normative ethics tries to offer a substantive, albeit general answer to the questions – what should I do? How I ought to live? It also tries to spell out reasons why a rational person ought to accept the answer it gives.

Bioethics is normative ethics applied to decision making and public policy in the domains of biology, medicine and health care. It is concerned with matters of scientific research and with the social application of biological knowledge and biomedical technology. Public health ethics has risen alongside bioethics and the two fields of applied ethics have strong affinities and connections.

Environmental Ethics

Our impact on the natural environment and the way in which this affect humans, other animals and plant, air, water and soil, raises important ethical question. These questions which are often dealt with under the heading of environmental ethics include: Is human welfare all that matters morally when we evaluate say, deforestation or elimination of a species, pollution of the environment? Should we aim to decrease the number of human on our planet in order to make other species flourish or to make environment pollution free? What we ought to do about global warming?

The relevance of environmental ethics is obvious. Since the 1960s such ethics has had a more or less strong foothold in most societies. They are now part of the international political agenda, the Kyoto Treaty is a good example — The Kyoto Treaty is an agreement reached under the United Nations Framework Convention on Climate Change (UNFCCC). The key countries as of July 2006, agreed to reduce greenhouse gases. Almost every political party and large company has formulated policies on treatment of the natural environment. Furthermore, journals dedicated to environmental ethics have emerged, as we have NGOs like Greenpeace and Earth First.

Environmental ethics is a multidisciplinary activity. It draws on expertise in physics, biology, economic, law, sociology, environmental science, psychology and philosophy. We can distinguish between descriptive and normative environmental ethics. The descriptive aim is to describe and explain what attitudes people have to questions like those mentioned above. This part is usually undertaken by sociologists and anthropologists.

The normative aim is to critically assess the attitude people have on these issues. Environmental assessment or monitoring depends on scientific knowledge and philosophical consideration about logic, value theory, normative ethical theory and the clarification of central concepts like those of welfare, value and nature. All environmental ethics refers to discussions of how human ought to treat the built and natural environment.

This course will strengthen and reinforce your professional knowledge and skills. As an EHO, it guides you to be discretionary, have initiative, innovative and be objective in environmental issues and challenges.

WHAT YOU WILL LEARN IN THIS COURSE

EHS 505: Environmental Health Ethics – is a final year 2 units' course. It will be available for all students offering Environmental Health. The course will expose you to the definition, evolution, concepts and theories of professional ethics of environmental health. It will also treat concepts of morality i.e. standard of beliefs, good and bad, right and wrong.

You will also learn about meta-ethics and normative ethics and their respective subfields including the professional ethics of other health professionals and the role of EHORECON in the enforcement of professional environmental ethics.

The course consists of 11 units in 4 modules. Module 1 is made up of 2 units; module 2 consists of 3 units. Modules 3 and 4 also have 3 units each.

Module I which focused on definitions and components of Environment and Environmental Health has 2 units. Unit 1 consists of definitions and components of Environment; unit 2 contains definitions and components of Environmental Health.

Module 2 which was broken into 3 units discussed Environmental Health as a profession. Unit 1 of this module contains the different meaning of “a profession”. Unit 2 contains the various meaning of vocation, while unit 3 treated the history of vocation.

In module 3 you will learn about Ethical Concepts. This module also has 3 units. Unit 1 explained the evolution and different meaning of ethics; unit 2 dealt with ethical concepts while, unit 3 discussed ethical foundation of Environmental Health management i.e. (Ethical Theories).

The last module which is module 4 is on Environmental Health Ethics contains 3 units. Unit 1 discussed Environmental Health ethics, unit 2 explained code of practice of Environmental Health in Nigeria, while unit 3 the last of the units gave an insight into professional ethics of difference health professions viz. Medicine, Nursing, Community Health and Engineering.

COURSE AIMS

EHS 505 – Environmental Health Ethics is designed to acquaint you with the ethical concepts and code of practice of Environmental Health in Nigeria.

The concepts and theories of ethics are to build, develop and sustain the affective domains of Environmental Health practitioners so that EHOs for example, could have initiative, be discretionary, innovative and be objective in the performance of their duties.

If this course is properly mastered, all learners shall develop integrity, loyalty and honesty of purpose in the discharge of their professional duties. Rancour, acrimony, petty professional jealousy etc. between members of the same profession or inter professional conflicts that can serve as hindrances to effective and efficient health services are prevented or reduced to the barest minimum. These are some of the salient aims of this course.

COURSE OBJECTIVES

To accomplish the aims set out, the course has a set of objectives (i.e. broad objectives). Each unit has specified objectives which are stated at the beginning of each unit (behavioural objectives) please, read the objectives before you study the unit because they will direct you and encourage your concentration apart from the fact that you will need to refer to them (objectives) to measure your level of understanding of the course. The unit objectives (i.e. behavioural objectives) are no less important; check them after completing every unit to assess how much you have achieved in terms of the expected changes in you.

Thus, on the completion of this course, you should be able to:

- explain the meaning of ethics
- classify ethics
- explain ethical concepts
- explain code of practice of Environmental Health
- apply ethical theories and principles in environmental health services

- develop high moral standard, integrity, loyalty and dedication to environmental health profession and practice.

WORKING THROUGH THIS COURSE

To complete this course, you are expected to read and understand each unit, also use textbooks and other materials which may be provided for you by the National Open University of Nigeria (NOUN).

Attempt with all seriousness self-assessment exercises built into every unit in each module. In the course, you would be required to submit assignment for assessment i.e. tutor-marked assignments (TMA) at the end of the course, there is a final examination. The course should take about 30 weeks to complete.

Listed below are the components of the course, what you have to do and how to allocate your time to each unit for timely and successful completion of the course. Devote adequate time to thoroughly study the course on your own but do not absent yourself from tutorial classes' sessions where you will meet and interact with facilitators and your colleagues.

COURSE MATERIALS

The main components of the course material are:

- i. Course Guide
- ii. Study Units
- iii. Textbooks and References
- iv. Assignments File
- v. Presentation Schedule.

STUDY UNITS

The course is made up of 4 modules broken into 11 units as listed below:

MODULE 1

- | | |
|--------|--|
| Unit 1 | Definition of Environment |
| Unit 2 | Definitions and Components of Environmental Health |

MODULE 2

- | | |
|--------|---------------------------|
| Unit 1 | Meaning of a Profession |
| Unit 2 | Definitions of a Vocation |
| Unit 3 | History of Vocation |

MODULE 3

Unit 1	Meaning of Ethics
Unit 2	Ethical Concepts
Unit 3	Ethical Foundation of Environmental Health Management (Ethical Theories)

MODULE 4

Unit 1	Environmental Health Ethics
Unit 2	Code of Practice of Environmental Health in Nigeria
Unit 3	Professional Ethics in other Professions and Intra and Inter Professional Relationships:

- Medicine
- Nursing
- Community health
- Environmental Health Officers' ethics
- Engineering
- Intra and inter professional relationships.

TEXT BOOKS AND REFERENCES

Amadi, A. N. (2011). *ABC of Environmental Health* (1st ed.). Owerri: Readon Publishers Ltd.

Adetokunbo, O. L. & Herbert, M. G. (2008). *Short Textbook of Public Health Medicine for the Tropics* (4th ed.). London: Bookpower Publishers.

Asthana, D. K. & Asthana, M. (2003). *Environment: Problems and Solution*. New Delhi: S. Chand and Company Ltd.

International Health Regulations (2005 Edition).

Oxford Advanced Learners' Dictionary (International Students' Edition).

Aartsen, V. M. (2004). *Towards a Renewed Curriculum in Earth Resources and Environmental Geosciences at ITC*. Enscheda: University of Twente.

Asker, V. D., Kuiper W. J. & Haneyer, U. (2003). *Curriculum Landscapes and Trends*. Dordrecht: Klumer Academic Publishers.

Bale, A. A. (2003). *Economic Development and Democracy in Ethiopia*. Rotterdam: Sanders Institute.

Cailloids, F. (2004). "Preparing Secondary School Students for Work in Europe." *Newsletter International Institute for Educational Planning*.

Dyankov, A. (1996). *Current Issues and Trends in Technical and Vocational Education*. Paris: UNESCO.

Psacharopoulos, A. (1987). *Vocational Education and Training in Developing Countries*. Oxford: Oxford University Press.

ASSIGNMENT FILE

In this file, you will find all the details of the work you must submit to your tutor for marking. The marks you obtain for these assignments will count towards the final mark you obtain for this course. Further information on assignments will be found in the Assignment File itself and in the assessment section of this course guide.

TUTOR-MARKED ASSIGNMENT

The TMAs is a continuous component of your course. It accounts for 30% of the total score. You will be given four (4) TMAs to answer. Three of this must be answered before you are allowed to sit for the end of course examination. The TMAs would be given to you by your facilitator and returned after you have done the assignment. Assignment questions for the units in this course are contained in the assignment file. You will be able to complete your assignment from the information and material contained in your reading, references and study units. However, it is describable in all degree level of education to demonstrate that you have read and researched more into your references, which will give you a wider viewpoint of the subject.

Make sure that each assignment reaches your facilitator on or before the deadline given in the presentation schedule and assignment file. If for any reason you cannot complete your work on time, contact your facilitator before the assignment is due to discuss the possibility of an extension. Extension will not be granted after the due date unless there are exceptional circumstances.

FINAL EXAMINATION AND GRADING

The end of course examination for introduction to environmental health services will be for about 3 hours and it has a value of 70% of the total

course work. The examination will consist of questions, which will reflect the type of self-testing, practice exercise and tutor-marked assignment problems you have previously encountered. All areas of the course will be assessed. You might find it useful to review your self-test, TMAS and comments on them before the examination. The end of course examination covers information from all parts of the course.

PRESENTATION SCHEDULE

Your course materials have important dates for the early and timely completion and submission of your TMAs and attending tutorials. You are expected to submit all your assignments by the stipulated time and date and guard against falling behind in your work.

COURSE MARKING SCHEDULE	
Assignment	Marks
Assignments 1 – 4	Four assignments, best three of the four counts as 10% each of the 30% course marks.
End of course examination	70% of overall course marks.
Total	100% of course materials.

ASSESSMENT

There are three parts to the course assessment and these include self-assessment exercises, tutor-marked assessments and the written examination or end of course examination. It is advisable that you do all the exercises. In tackling the assignments, you are expected to use the information, knowledge and techniques gathered during the course. The assignments must be submitted to your facilitator for formal assessment in line with the deadlines stated in the presentation schedule and assignment file. The work you submit to your tutor for assessment will count for 30% of your total course work. At the end of the course you will need to sit for a final end of course examination of about three hours duration. This examination will count for 70% of your total course mark.

HOW TO GET THE MOST FROM THIS COURSE

In distance learning, the study units replace the lectures in the conventional systems. This is one of the great advantages of distance learning; you can read and work through specially designed study materials at your pace, and at a time and place that suit you best. Think of it as reading the lectures instead of listening to a lecturer. In the same way that a lecturer might set you some reading to do, the study units tell you when to read your set books or other material, and when to

undertake computing practical work. Just as a lecturer might give you, in class, exercises, your study units also provide exercises for you to do at appropriate points. Each of the study units follows a common format. The first item is an introduction to the subject matter of the unit as how a particular unit is integrated with the other units and the course as a whole.

Next is a set of learning objectives. These objectives itemise what you should be able to do by the time you have completed the unit. You should use these objectives to guide your study. When you have finished the unit, you must go back and check whether you have achieved the objectives. If you make a habit of doing this you will significantly improve your chances of passing the course. Exercises are interspersed within the units and answers are given. Working through this exercise will help you to achieve the objectives of the unit and help you to prepare for the assignments and examinations.

The following is a practical strategy for working through the course.

1. Read this course guide thoroughly
2. Organise a study schedule. Refer to the 'course content', for more details.
3. Once you have created your own study schedule, do everything you can to stick to it. The major reason that students fail is that they get behind with their course work. If you get into difficulties with your schedule, please let your tutor know before it is too late.
4. Turn to unit 1 and read the introduction and the objectives for the unit.
5. Work through the unit. The content of the unit itself has been arranged to provide a sequence for you to follow.
6. Review the objectives for each study unit to confirm that you have achieved them. If you feel unsure about any of the objectives, review the study materials or consult your tutor.
7. When you are confident that you have achieved a unit's objective, you can then start on the next unit. Proceed unit by unit through the course and try to pace your study so that you keep yourself on schedule.
8. When you have submitted an assignment to your tutor for marking, do not wait for its return before starting on the next unit. Keep to your schedule. When the assignment is returned, pay particular attention to your tutor's comments.
9. After completing the last unit, review the course and prepare yourself for final examination. Check that you have achieved the unit objectives (listed at the beginning of each unit) and the course objectives listed on this course guide.

FACILITATORS/TUTORS AND TUTORIALS

There are 15 hours of tutorials provided in support of this course. You will be notified of the dates, times and location of the tutorials as well as the name and the phone number of your facilitator, as soon as you are allocated a tutorial group.

Your facilitator will mark and comment on your assignments, keep a close watch on your progress and any difficulties you might face and provide assistance to you during the course. You are expected to mail your tutor-marked assignment to your facilitator before the schedule date (at least two working days are required). They will be marked by your tutor and returned to you as soon as possible.

Do not delay to contact your facilitator by telephone or e-mail if you need assistance.

The following might be circumstances in which you would find assistance necessary, hence you would have to contact your facilitator if you:

- do not understand any part of the study or the assigned readings
- have difficulty with self-tests
- have a question or problem with an assignment or with the grading of an assignment.

You should endeavour to attend the tutorials. This is the only chance to have face to face contact with your course facilitator and to ask question which are answered instantly. You can raise any problem encountered in the course of your study. To gain more benefit from course tutorials prepare a question list before attending them. You will learn a lot from participating actively in discussions.

SUMMARY

EHS 505: Environmental Health is designed to acquaint you with the evolution, concepts and theories of ethics with a particular reference to environmental health ethics and other similar health professionals. Upon completion of this course you should be able to apply the basic ethical concepts, theories and principles to mould your characters because it will encourage you to identify what is wrong. It teaches fair play, equity justice and honesty. The whole essence of the course is to develop you as true human being who is reliable and could be trusted. You will shun malice, hatred, laziness and corrupt or sharp practices in your profession and in your everyday affair. The course re-brands you to be a better EHO in Nigeria and outside Nigeria.

You will be well equipped to proffer answers or pragmatic solutions to such questions like:

- define evolution
- explain the term ethics
- list and explain two types of ethical theories
- enumerate five items in the code of practice of Environmental Health in Nigeria
- list three roles of EHORECON in the enforcement of code of ethics of Environmental Health in Nigeria.

The above lists of questions are just few among many and they are to guide and stimulate you to properly understand course materials. Do not limit yourself to the course materials consult relevant books, journals and periodicals and internet, interact with experts in the field of environmental health at seminars, workshops, symposia, and group discussions or on one on one basis. I can assure you that if you can be serious with your studies and take to pieces of professional advice offered, you will be well equipped to tackle ethical and moral environmental problems and challenges.

I wish you a rewarding endeavour.



CONTENTS	PAGE	
MODULE 1	1	
Unit 1 Definition of Environment	1	
Unit 2 Definitions and Components of Environmental Health	10	
MODULE 2	20	
Unit 1 Meaning of a Profession	20	
Unit 2 Definitions of a Vocation	28	
Unit 3 History of Vocation	32	
MODULE 3	39	
Unit 1 Meaning of Ethics	39	
Unit 2 Ethical Concepts	46	
Unit 3 Ethical Foundation of Environmental Health Management (Ethical Theories)	54	
MODULE 4	64	
Unit 1 Environmental Health Ethics	64	
Unit 2 Code of Practice of Environmental Health in Nigeria	72	
Unit 3 Professional Ethics in other Professions and Intra and Inter Professional Relationships.....	79	

MODULE 1

Unit 1	Definition of Environment
Unit 2	Definition and Components of Environmental Health

UNIT 1 DEFINITIONS AND COMPONENTS OF ENVIRONMENT**CONTENTS**

1.0	Introduction
2.0	Objectives
3.0	Main Content
3.1	Definitions of Environment
3.1.1	Definition of Environment as a “Surrounding”
3.1.2	Definition of Environment as “the Sum Total of All Conditions”
3.1.3	Definition of Environment as “an External Conditions and Factors”
3.2	Components of Environment
3.2.1	Physical Component of Environment
3.2.2	Biological Component of Environment
3.2.3	Social Component of Environment
3.3	Explanation of the Different Components of Environment
3.3.1	Physical Environment
3.3.2	Living Environment
3.3.3	The Socio and Cultural Environment
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Reading

1.0 INTRODUCTION

I believe you have read the course guide. If so, it means you now have a general understanding of what module 1 is about and how it fits into the course as a whole.

This module is made up of two units:

1. Definitions and components of Environment
2. Definitions and components of Environmental Health (EH).

In unit 1 of this module, you will learn various definitions of environment and the components of environment. The word –

Environment is derived from a French word ‘Enviromer’ which means ‘surrounding’. Yes, you are reading this unit in a particular surrounding or in an environment. At any point in time, you must be in an environment whatever you are doing.

This makes it necessary for you to know something about your surroundings and what constitute it (components). At least you should know what your surrounding or environment is and which part or component of environment it belongs. Anything short of this, will amount to you not being able to describe your parts of the body or locate them.

Therefore, you have to pay maximum attention to this unit which will serve as a solid foundation for other units in the remaining modules of this course.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- define environment as ‘surrounding’, “as the sum total of all conditions” and “as external conditions and factors”
- classify the different components or parts of environment
- explain the different components or parts of environment and environmental effects of human behaviours.

3.0 MAIN CONTENT

3.1 Definitions of Environment

The Simple Word for Environment is ‘Surrounding’

Do not forget this, but as an oncoming Environmental practitioner, you should be able to define environment in a simple professional language.

3.1.1 Environment Means Our Surrounding

“Everything which surrounds us may collectively be termed as the Environment. The air which we breath, the soil on which we stand, water, living and non-living things around” (Asthana and Asthana, 2003).

3.1.2 As the Sum Total of All Conditions

In another instance, Barrow (1995) defined environment “as the sum total of the conditions within which organisations live”.

3.1.3 As External Conditions and Factors

Similarly, Miller (1994) defined environment as all “external conditions and factors, living and non-living that affect an organism or other specified system during its life time”

In a simple term, you will now realise that environment means and include the air, water, soil, plant and animal etc. all of which you interact with and which influence you either positively or negatively depending on how you control or make use of them. You are also part of the environment. Now that you are familiar with what environment means, it is also necessary for you to know what make up or constitute the environment so that you will be able to identify, classify, list and explain the parts or components of environment for your practice.

3.2 Components of Environment.

3.2.1 Physical Component of the Environment

The physical environment consists of the non-living (abiotic) part of the environment i.e. air, water, light, heat, radiation, gravity, pressure, climate, soil, shelter/housing etc.

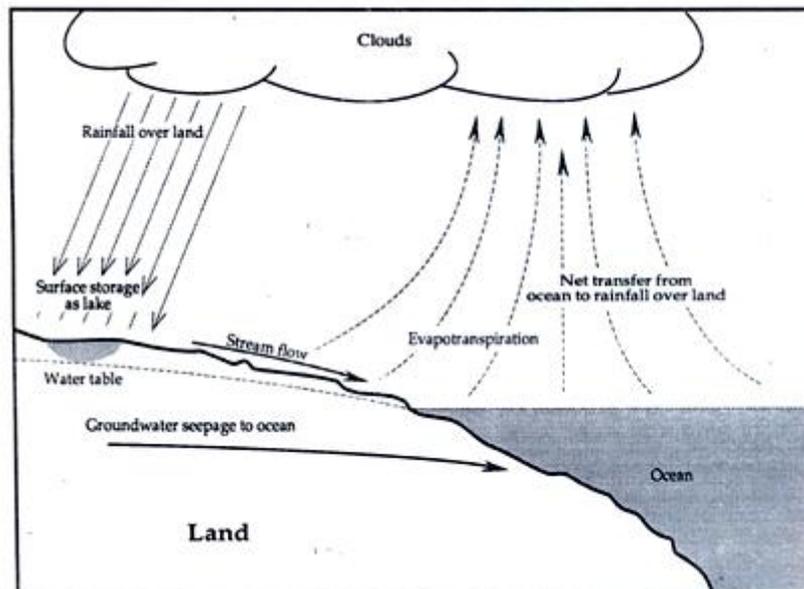


Fig.1.1: The Hydrological Cycle
Source: Nigeria's Threatened Environment

3.2.2 Biological Environment

All the living things (i.e. plants, animals and microorganisms) in an area constitute the biological environment



Fig. 1.2: Oil Palm Plantation A Biological Environment
Source: Nigeria's Threatened Environment

3.2.3 Social Environment

This is the part of environment that focuses on humans. In essence, it represents the situation of human beings as members of society (i.e. family groups, villages or urban communities/ culture (i.e. beliefs and attitude), the organisation of society (i.e. policies and government, laws and the judicial system), the educational system, transport and communication and social services (i.e. health care and related factors) all of which interact to shape social life, behaviour and other relationships.



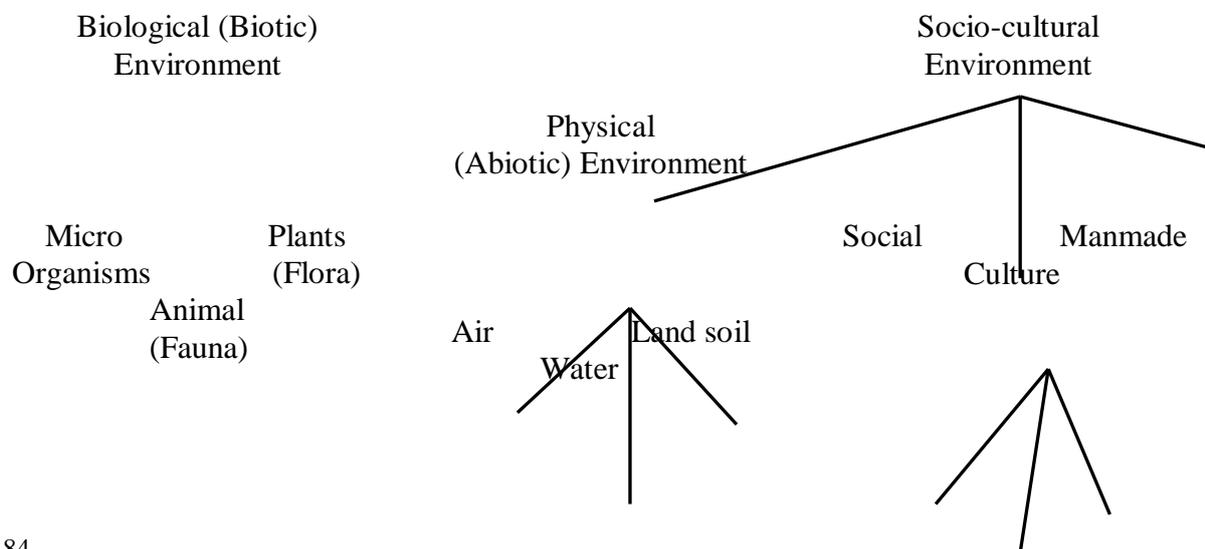
Fig. 1.3: Social Environment (Woman Fetching Water)

3.3 Explanation of the Different Components of Environment

As mentioned earlier on, the term environment can be broadly defined as one’s surroundings. To be more specific we can say that it is the physical and biological habitat that surrounds us. The two major classifications of environment are:

Components of the Environment

(EARTH)



3.3.1 Physical Environment

External physical factors like air, water and land etc. This is also called the Abiotic environment. The physical environment can be further subdivided into the following four segments or parts:

1. **Lithosphere:** The earth's crust consisting of the soil and the rocks.
2. **Hydrosphere:** This comprises of all water resources both surface and groundwater. The world's water is found in oceans and seas, lakes and reservoirs, rivers, streams, springs and wells. Rainwater is serving as a source for many sources of water supply.
3. **Atmosphere:** It is the gaseous envelope surrounding the earth and extends up to 500km above the earth's surface.
The composition of the atmosphere is as follows:
Nitrogen 78.1%
Oxygen 20.9%
Water vapour 0.1 – 5%
Carbon dioxide 0.03%
Source: Asthana and Asthana, 2003.
4. **Biosphere:** The biosphere is a capsule encircling the earth surface wherein all the living things exist. This portion extends from 10,000m below sea level to 6,000m above sea level. Life forms do not exist outside this zone. The biosphere covers parts of other segments of the environment viz: Lithosphere, Hydrosphere and Atmosphere.
5. Life sustaining resources like food, water and oxygen present in the biosphere are being withdrawn and waste products in increasing quantities are being dumped.

Note that you have a challenge because the biosphere has been absorbing these wastes and assimilating them. However, rate of waste dumping has gone beyond the assimilation capability of the biosphere and signals of this environmental stress are becoming evident.

3.3.2 Living Environment

The live components of the environment comprises of plants, animals and microorganisms (bacteria and fungi). They carry out different functions and based on their role, they are classified into three main groups. They are:

- Producers
- Consumers
- Decomposers.

Producers are mainly green plants having chlorophyll. They produce carbohydrates by photosynthesis process. In effect the plants convert solar (sun) energy into chemical energy using water and carbon dioxide. They are called Autotrophy (Self-feeders) since they produce their own food; they store the remaining food for the consumption of man and animal.

Consumers are living things which do not have chlorophyll and hence they are unable to produce their own food. They rely on the producers for their food requirements. They are called Heterotrophs.

Decomposers are called Sapotrophs and are mainly micro-organisms like bacteria and fungi. The dead organic materials of producers and consumers are their food. They break down the organic matter into simple compounds during their feeding process. These simple compounds (nutrients) are absorbed by the producers thus completing a cycle of exchange matter between the biotic and abiotic components of the environment.

3.3.3 The Socio and Cultural Environment

You will remember that this is the part of the environment that focuses on human, representing the situation of human beings as a member of society and as a 'guest' in the environment. It includes the aspects of social interactions including its products such as beliefs, attitudes, taboos, etc.

The damage to the environment is caused mainly by man (anthropogenic) i.e. manmade. There are also natural disasters (non-anthropogenic). The natural impacts are non-preventable and on many occasions unpredictable. However, knowledge of natural hazards is essential in order to take mitigative (preventive and control) actions so that loss of life and property can be minimised.

On the other hand, manmade disasters are preventable if environmental practitioners are alive to their professional responsibility. This is why you need to understand what environment is, what constitute the environment, and how the different parts of the environment relate or their interdependence.

Your practice to deliver environmental health services shall go a long way to prevent, or control environmental disasters like flooding, fire, droughts, volcano, cyclones, hurricanes and tornadoes. When the environment is properly managed, it enhances healthy living in all aspects of life of man.

4.0 CONCLUSION

In this unit, you have learnt about definitions of environment, the various components or parts of environment, how they relate and their interdependence.

5.0 SUMMARY

A summary of the major points in this unit is that:

- Environment is defined as:
 - (a) a ‘surrounding’
 - (b) the “sum total of all conditions”
 - (c) as external conditions and factors.
- Environment is also classified into:
 - (a) Physical environment
 - (b) Biological environment
 - (c) Socio-cultural environment.
- The different components of environment were explained.
 - (a) Usefulness of physical and biological environment to man were stressed.
 - (b) The negative impacts of man were also highlighted.

6.0 TUTOR-MARKED ASSIGNMENT

1. Define Environment as:
 - (a) ‘Surroundings’
 - (b) ‘The sum total of all conditions’
 - (c) ‘As external conditions and factors’.
2. List the three main classifications of environment.
3. Enumerate and briefly explain the interrelationship and interdependence of physical, biological and socio-cultural components of environment.

7.0 REFERNCES/FURTHER READING

Amadi, A. N. (2011). *ABC of Environmental Health* (1st ed.). Owerri: Readon Publishers Ltd.

Asthana, D. K. & Asthana, M. (2003). *Environment: Problems and Solutions* (2nd ed.). New Delhi: S. Chand and Company Ltd.

Barrow, C. J. (1995). *Developing the Environment: Problems & Management* (1st ed.) England: Longman Scientific and Technician Group Ltd.

Bellam, P. (2007). *Dictionary of Environment* (1st ed.). New Delhi: Academic (India) Publishers.

UNIT 2 DEFINITIONS AND COMPONENTS OF ENVIRONMENTAL HEALTH

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Definitions of Environmental Health
 - 3.1.1 As a Branch of Public Health
 - 3.1.2 As a Study of the Effects of External Conditions on Human Health and Environment
 - 3.1.3 As Having Direct and Indirect Effects on Environment and Health and Wellbeing of Man
 - 3.1.4 As Addressing the Interrelationship between Human Health and the Environment
 - 3.1.5 As a Professional Practice
 - 3.1.6 As a Discipline
 - 3.1.7 As an Art and Science
 - 3.1.8 As a Systematic Development
 - 3.1.9 As Defined by WHO (1972)
 - 3.1.10 As Defined by WHO (1989)
 - 3.2 Components of Environmental Health
 - 3.3 Environmental Health Laws
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

In unit one of this model, you learnt about the meaning of environment and what constitute it i.e. the components of environment. You remember, that ‘Environment’ simply means our ‘Surrounding’ but this surrounding is not empty, it is filled with air, water, soil, plants, animals, manmade objects and our socio-cultural activities.

From your experiences as a user and part of the environment, you will recollect that except all of these components of the environment are controlled, properly managed and judiciously used; they may become sources of risks and hazards to us.

All activities, efforts and methods of controlling the components of environment are known as Environmental Health. In this unit, you will learn about environmental health and its components just as you learnt about environment and its components in unit one of module one. Please

pay maximum attention to this unit to enable you relate environment to health i.e. Environmental Health. It is then and only you can attempt to achieve health for yourself and for others i.e. complete state of physical, mental and social well-being and not merely absence of disease or infirmity (WHO).

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- state different definitions of environmental health
- explain the components of environmental health
- list two environmental health laws.

3.0 MAIN CONTENT

3.1 Definitions of Environmental Health

The various definitions of environmental health that you will learn in this unit are by no means the totality of existing definitions but should be viewed as a broad sweep of possible definitions. They are intended to stimulate your creativity and broaden your horizon. You should acknowledge that each definition was developed thoughtfully and represents the views and needs of the defining agencies, organisations or individuals. The contents of the ten (10) definitions enumerate here thus varies, but it is possible, without rising to a level of formal analysis, to observe some features that are prevalent across the definitions:

- all definitions mentioned human health, public health or humans or similar words
- some definitions in addition to human health mentioned ecologic health, or ecological balance
- a few definitions mentioned specific environmental stressors such as physical, chemical and biological agent.

3.1.1 Environmental Health as a Branch of Public Health

Agency for Toxic Substances and Disease Registry US; defined environmental health “as branch of public health that protects against the effects of environmental hazards that can adversely affect health or the ecological balances essential to human health and environmental quality.

Note that this definition of environmental health stresses any efforts you can make to prevent environmental hazards on man and the quality of the environment. But before considering another definition of

environmental health, you should know something about public health which embraces environmental health.

Winslow (1951) defined Public Health as:

“the science and art of preventing disease, prolonging life and promoting physical health and efficiency through organised community effort for the sanitation of the environment, control of community infections, the education of the individual in the principles of personal hygiene, the organisation of medical and nursing service for early detection and preventive treatment of disease, and the development of the social machinery which will ensure to every individual a standard of living adequate for the maintenance of health”.

This digression is necessary so that you will appreciate the centrality of environmental health in public health and the spirit of teamwork you should develop with other cadres of health workers.

I know, now that if subsequent definitions of environmental health refer to public health, you will not get confused. Public health is a big umbrella of all aspects of health disciplines.

3.1.2 Environmental Health as a Study of the Effects of External Conditions on Human Health and Environment

Environmental Health is the study of effects on human health of all external abiotic conditions and influences including naturally occurring phenomena and anthropogenic environmental pollutants.

The above definition emphasises the control of air, water and soil (abiotic conditions) which you learnt in unit one as parts of an environment. Again, the word ‘anthropogenic environmental pollutant’ as used in this definition, simply means manmade or artificial sources of environmental pollution.

3.1.3 Environmental Health as Having Direct and Indirect Effects on Environment and Health and Wellbeing of Man

Yet in another instance, European Charter on Environment and Health, defined environmental health as including “both the direct pathological effects of chemicals, radiation and some biological agents, and the effects (often indirect) on health and well-being of the broad physical, psychological, social and aesthetic environment which includes housing, urban development, land use and transport.”

Please, note the use of the phrase – “pathological effects” in this definition which means chemicals, radiation and biological agents in the environment that are capable of causing diseases if not controlled.

3.1.4 Environmental Health as Addressing the Interrelationship between Human Health and the Environment

Gordon and Lorry (2000) saw environmental health as addressing the interrelationship between human health and the environment. It has been described as the “art and science of protecting against environmental factors that may adversely affect human health and environmental quality”. Such factors include but not limited to air, food and water contaminants, radiation, toxic chemicals, wastes, disease vectors, safety hazards and habitat alterations.

3.1.5 Environmental Health as a Professional Practice

The Institute of Environmental Health (Australia) defined environmental health as the “professional practice of improving and preserving residential and industrial hygienic environments and housing for individuals and communities, and improving and preserving public health and allied matters including the control and management of the total environment and ecological balance by educating processes and enforcement of statutory provisions by application of preventing science and practice.”



Fig. 2.1: Waste Dump near houses

3.1.6 Environmental Health as a Discipline

National Centre for Environmental Health of the Centres for Disease Control and Prevention US defined environmental health as the discipline that focuses on the interrelationships between people and their environment; promotes human health and well-being and fosters a safe and healthful environment.

3.1.7 Environmental Health as an Art and Science

Unknown source – defined environmental health as art and science of protecting against environmental factors that may adversely affect human health or ecological balances essential to long term health and environmental quality.

3.1.8 Environmental Health as a Systematic Development

Furthermore, an unknown source defined environmental health as the systematic development, promotion and conduct of measures which modify or otherwise control those external factors in the indoor and outdoor environment which might cause illness, disability or discomfort through interaction with the human system. This includes not only health and safety factors, but also aesthetically desirable conditions in accordance with community demands and expectations.



Fig. 2.2: Gutters Running Through Houses
Source: Gege in Ibadan

Note that this particular definition of environmental health took into consideration the concepts of Primary Health Care (PHC) of acceptability, affordability, accessibility of health measures and devices and full participation of the members of the community in health activities.

3.1.9 Environmental Health as Defined by WHO (1972)

World Health Organisation (WHO) Scientific Group (1972) defined environmental health as a discipline concerned with the control of all physical, chemical and biological processes, influences and factors that exercise or may exercise, by direct or indirect means, a significant effect on the physical and mental health and social well-being of man and his society.

3.1.10 Environmental Health as Defined by WHO (1989)

Again another definition from the WHO Environmental Health Services (1989) saw environmental health as comprised of those aspects of human health and diseases that are determined by factors in the environment. It also refers to the theory and practice of assessing and controlling factors in the environment that can potentially affect man.



Fig.2. 3: Gutters running through houses

Source: Foko in Ibadan

Note that this last definition underscores the relevance and importance of Environmental Impact Assessment (EIA) and Health Impact Assessment (HIA) in environmental management.

Therefore, you have been able to examine ten (10) different definitions of environmental health. As you noticed, they have differences and similarities but the common goal is the achievement of healthy environment.

It is not intended that you should cram or rote learn the definitions, they are intended to broaden your horizon in environmental health, sensitise your creativity and expose the latent professional skills that would have remained dormant in you.

A critical appraisal of the definitions would reveal that many of the definitions if not all, have in-built COMPONENTS of the environment. The definitions have therefore heralded the next topic in this unit which is components of environmental health.

3.2 Components of Environmental Health

I am sure you are very conversant with the word ‘component’. You remember in unit one, you read about the component of the ENVIRONMENT – as comprising living (biotic), (non-living) abiotic and socio-cultural. Component simply means ‘parts of’. As expected components or parts of the environment like plants, animals, air, water, soil and man and his culture constitute environmental health when they are controlled or directed in such a way as to tame them for our enjoyment and other benefits. Please, study the components critically and meticulously for your understanding. It is of no use if you know the evolution and ethics of environmental health and you do not know

environmental health itself. The components of environmental health are:

- Food Hygiene and Control
- Waste Management
- Housing Quality
- Radiation Control and Health
- Pest and Vector Control
- Epidemiology Control and Investigation
- Protection of Recreational Environment and Homes
- Water Resources Management and Sanitation
- Environmental and Health Impact Assessments
- Pollution Control and Abatement
- International Health Regulations – Yellow Card.

The main objective of International Health Regulations is to prevent transborder transmission of disease. Environmental Health Officers (EHO) play significant role in the enforcement of the provisions of International Health Regulations. EHO is the first line of contact of international air and sea ports including border or frontiers to check import or export of infections.

3.3 Environmental Health Laws

The instrument or authority of office of environmental health practice is the Environmental Health Laws. They are ENABLING factors without which all activities of EHO could be illegal and therefore liable. EHO must be conversant with all the laws, decrees, acts and byelaws that are relevant to the implementation, regulation and enforcement of environmental practice.

4.0 CONCLUSION

In this unit, you have learnt about different definitions of environmental health and the different components of environmental health. You would by now have realised that Environmental Health is defined or explained according to the needs or situations of individuals or organisations. It is not stereotyped and therefore you too can coin or develop your own definitions. The unit would have encouraged you to be discretionary and creative in the ways and manners you perceive environmental health.

The various definitions also allowed you to understand the components or parts of environmental health as having something to do with the components of the environment itself. You are now more intimate with the word environment and its components as discussed in unit one

and also environmental health and its components as explained in unit two in that logical sequence.

5.0 SUMMARY

A summary of the major points in this unit is that:

- Environmental Health is defined as:
 - (a) Branch of public health
 - (b) The study of the effects of external conditions on health and environment
 - (c) Having direct and indirect effects on environment and health.
 - (d) Addressing the relationships between human health and the environment
 - (e) Professional practice
 - (f) Discipline
 - (g) Art and science
 - (h) Systematic development
 - (i) Defined differently by the World Health Organisation (WHO, 1972 & 1989).
- The various components of environmental health explained include:
 - (a) Food hygiene and control
 - (b) Waste management
 - (c) Housing quality
 - (d) Radiation control and health
 - (e) Pest and vector control
 - (f) Epidemiological control and investigation
 - (g) Protection of recreational environment and homes
 - (h) Water quality management
 - (i) Environmental and Health Impact Assessment
 - (j) Pollution control and abatement
 - (k) International Health Regulations
 - (l) Environmental Health Laws.

6.0 TUTOR-MARKED ASSIGNMENT

1. Define Environmental Health as:
 - (a) a professional practice.
 - (b) a branch of Public Health.
 - (c) defined by WHO in 1972.
2. List five (5) components of Environmental Health.
 - (a) Briefly explain two (2) of the components listed.

7.0 REFERENCES/FURTHER READING

Amadi, A. N. (2011). *ABC of Environmental Health* (1st ed.). Owerri: Readon Publishers Ltd.

Adetokunbo, O. L. & Herbert, M. G. (2008). *Short Textbook of Public Health Medicine for the Tropics* (4th ed.). London: Bookpower Publishers.

Asthana, D. K. & Asthana, M. (2003). *Environment: Problems and Solution*. New Delhi: S. Chand and Company Ltd.

International Health Regulations (2005 Edition).

Oxford Advanced Learners' Dictionary (International Students' Edition).

MODULE 2

Unit 1	Meaning of a Profession
Unit 2	Definitions of a Vocation
Unit 3	History of Vocation

UNIT 1 MEANING OF A PROFESSION

CONTENTS

1.0	Introduction
2.0	Objectives
3.0	Main Content
3.1	Meaning of a Profession
3.1.1	Formation and Criteria of a Profession
3.1.2	Characterisation of a Profession
3.1.3	Why Environmental Health is a Profession
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Reading

1.0 INTRODUCTION

In a logical sequence, you have learnt about the different meanings of environmental health, because it means different things to individuals, organisations or corporate bodies depending on what they want to achieve or accomplish in terms of managing the environment.

You also learnt about the various components of environmental health e.g. waste management, water quality management, pest management etc. This was intended to give you an insight into what you are to be practising in the future as a professional. You are being trained to become a professional. Hence, you need to know what a profession is and who is a professional. All of these and more constitute the contents of units 1, 2 and 3 which you are about to read. You need to be attentive as you read on.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the meaning of a profession
- describe the formation of a profession
- enumerate the characteristics of a profession.

3.0 MAIN CONTENT

3.1 A Profession. What is it?

According to Oxford Advanced Learner's Dictionary, a profession is a type of job that needs specialised training or skill especially one that needs a high level of education e.g. medical, legal and teaching professionals.

Please, take note of those keywords like “specialised training” and “high level of education” you will need then later. You also need to be conversant with some words like – profess (verb) i.e. to claim, professional (adjective or noun) i.e. connected with a job that need specialised training, professionalise (verb) i.e. to make an activity more professional, professionalism (noun) i.e. the high standard that you expect a person who is well trained in a particular job.

The intention is not to test your sense of English Language but to acquaint you with common terms that are frequently used with the word ‘profession’. You should know what each of them stands for.

If a profession needs specialised training, then what does the word specialised connote? It means designed or developed for a particular purpose or area of work, study or business or to spend more time on one area of work.

Training is the process of providing knowledge and skills and bringing about designed changes in attitudes in order to improve the competence of people being trained. The goal of training is to improve performance. By now, you should be seeing the picture of what a profession. You will see it clearly as you proceed in this unit.

Let us consider another definition of a profession: Alexander Morris in his book ‘profession’ defined profession as an occupation based on specialised intellectual training, the purpose of which is to give skilled service to others for a definite fee or salary.

Wikipedia Encyclopaedia defined profession as a specialised **occupation** or **vocation** characterised by intensive training leading to a first degree and subsequently licensure by a regulatory body.

Apart from you paying attention to those words earlier explained, also note that Alexander Morris included in his own definition of profession payment of fee or salary for service rendered. Wikipedia Encyclopaedia emphasised intensive training leading to a first degree and subsequently licensure by a regulatory body.

The three different definitions of a profession explained here are saying the same thing in different ways just like people see environmental health in different ways. By these definitions you should be accumulating the likely characteristics of a profession e.g. intensive training to acquire skill, rendering of a specialised service to others for a definite fee or salary and the need to be licensed by a regulatory body such as EHORECON.

Furthermore, by now, you know that in this era of mass proliferation of professions and professional bodies, only a few of the self-styled professions can qualify as 'true' professionals at best they may qualify as **vocations**.

One would therefore agree with Cant-Saunders and Wilson (1933) that a typical profession exhibits a complex of **characteristics** and that other vocations approach this condition more or less closely owing to the possession of some of these characteristics fully or partially developed. Classically, there are only three professions and these are: divinity, medicine and law with the use of technology and occupational specialisation in the 19th century, other bodies began to claim professional status.

3.1.1 Formation and Criteria of a Profession

Formation

A profession arises when any trade or occupation transforms itself through the development of formal qualifications based upon education and examination, the emergence of regulatory bodies with power to admit and discipline members and some degree of monopoly rights.

The process by which a profession arises from a trade or occupation is often termed *professionalisation* and has been described as one starting with the establishment of the activity as a full-time occupation, performing through the establishment of training schools and university links, the formation of a professional organisation and the struggle to gain legal support for exclusion, and culminating with the formation of a formal code of ethics.

Criteria

Regulation: Professions are regulated by status, with the responsibilities of enforcement delegated to respective professional bodies whose function is to define, promote, oversee, support and regulate the affairs of its members. These bodies are responsible for the licensure of professionals and many additionally set examinations of competence and enforce adherence to an ethical code of practice. However, they all require that the individual hold at least a first professional degree before

licensure (in few occasions especially in Nigeria they can be exceptional); example of professional bodies are ACCA, ICAN, EHORECON etc.

Autonomy: Professions tends to be autonomous for they have a high degree to control their own affairs, so far as they can make independent judgement about their work that is freedom to exercise their professional judgement. The concept of autonomy can therefore be seen to enforce not only judgement but also self interest and a continuous process of critical evaluation of ethics and procedures from within the profession itself.

Status and Prestige: Professions enjoy a high social status, regard and esteem, conferred upon them by the society. This high esteem arises primarily from the higher social function of their work, which is regarded as vital to society as a whole and this of having a special and valuable nature. All professions involve technical, specialised and highly skilled work often referred to as “professional expertise”.

Power: All professions have power. This power is used to control its own members and also its area of expertise and the conduct of its members and exercises a dominating influence over its entire field (meaning that professions can act monopolist). A profession is characterised by the power and high prestige it has in society as a whole. It is the power, prestige and value that society confers upon a profession that more clearly defined it.

3.1.2 Characteristics of a Profession

This list of characteristics is extensive but does not claim to include every characteristic that has ever been attributed to professions, nor do all of these features apply to every profession.

- Unique, definite and essential social service. These services are expected to be rendered to the public by every legal member of the professional group.
- A prolonged specialised and systematised training and education based on intellectual technique. Thus the skill based on theoretical knowledge, professionals are assumed to have extensive theoretical knowledge e.g. medicine, law, enginery.
- Professional Association: Professions usually have professional bodies organised by their members, which are intended to enhance the status of their members and have carefully controlled entrance requirements.
- Testing of competence: Usually before being admitted to membership of a professional body, there is a requirement to pan

prescribed examinations that are based on mainly theoretical knowledge.

- Licensed practitioners: Professions seek to establish a register or membership so that only those individuals so licensed are recognised as bona fide.
- Work autonomy: Professionals bodies retaining control over their work, even when they are working outside the profession in commercial or public organisations. They have also gained control over their own theoretical knowledge.
- Code of professional conduct or ethics: Professional bodies usually have codes of conduct or ethics for their members and disciplinary procedures for those who infringe the rules.
- Self regulation: Professional bodies tend to insist that they be self-regulating and independent from government. The professional tend to have policies that are overseen and regulated by senior respected practitioners and the most highly qualified members of the profession.
- Exclusion, monopoly and legal recognition: Professions tend to exclude those who have not met their requirements and joined the appropriate body. This is often termed “professional closure” and skills to block entry for the unqualified and to sanction and to expel incompetent members.
- Control of remuneration: Where levels of remuneration are determined by government, professional bodies are active in negotiating remuneration packages for their members.
- Public service and altruism: The earning of fees for services rendered are being defended because they are provided in the public interest e.g. work of doctors, nurses, EHO contributes to health and public health.
- Offer reassurance: Professionals should offer reassurance to their clients that although there appear to be problem, everything is normal or being dealt with properly. This reassurance may be offered rather than solutions to the particular problems for example sick people may be reassured that they will get better in a few days (All will be well).
- A profession must have strong, virile and comprehensive self-governing organisation which links all professional together and which can defend the interests of members against public abuse or interference.
- A professional must demonstrate his/her competence and eligibility by passing a professional test and by obtaining a license.
- A professional puts emphasis on service rather than on economic gains. He can render his services without expecting gains because

a professional has an obligation and legal commitment to satisfy his client even if the client is incapable of paying for the services.

- A professional assumes a high degree of responsibility for his actions and ensures personal discipline in his activities. He does not do things because he is told to do them but because he knows he should do them and it is right to do them.
- Has a broad range of autonomy for the professionals and the group-up. This is because the skills required in a profession involve intricate and delicate decisions which only the qualified professionals are capable of and predisposed to taking in accordance with legally laid down standards, rules and processes.
- The public must accept the activities of members of the profession as very essential services in the society and as worthy of reverence by the clients.

3.1.3 Why Environmental Health is a Profession

Having examined some definitions of profession and having explained the formation and characteristics of a profession, it is quite clear that environmental health satisfies all the conditions that make a discipline a profession. At the risk of repeating one or two definitions one should readily agree that environmental health is a profession not only in Nigeria but worldwide. For instance, Alexander Morris defined a profession as an occupation based on specialised intellectual training, the purpose of which is to give skilled service to others for a definite fee or salary. Environmental health has many areas of specialisations as waste management, water quality management, pest management, housing; food hygiene etc. each of the companies of environmental health is an area of specialisation.



Fig. 1.1: Sanitarians in a Group Picture

Wikipedia Encyclopaedia inter-alia defined environmental health as leading to a first degree and subsequently licensure by a **regulatory body**.

Many countries of the world have organised professional bodies that regulate environmental health. In Nigeria EHORECON is the regulatory body established by Act 11 of 2002. Among its numerous functions is power to register members, discipline erring members, determine, regulate and implement what the profession should or will be as well as the professional. EHORECON has code of professional ethics as contain in section 27 of the Act that established it.

4.0 CONCLUSION

In this unit you have learnt about the meanings of a profession, a profession invariably attracts long training for the acquisition of skill in specialised areas to serve the people at a fee. You must by know whether you are a professional or are you preparing to be professional. You may be in a profession and you may not be a professional.

You also learnt about the process of formation of a profession and also the features or characteristics of a profession. It was expressly stated that Environmental Health is a profession judges from how it satisfies the criteria of a profession. You learnt also that a profession is different from a vocation. Unit 2 which you are about to read explains in details the meanings of vocation.

5.0 SUMMARY

A summary of the major points in this unit is that:

- a profession attracts long training to acquired specialised skills
- a professional has been licensed by a regulatory body
- a professional renders skilled services for a fee or salary
- formation of a profession is procedural
- a profession has to satisfy laid down criteria
- a profession has peculiar characteristics
- environmental health is a profession
- EHORECON regulates environmental health practice in Nigeria.

6.0 TUTOR-MARKED ASSIGNMENT

1. Define the word profession.
2. List five (5) criteria to be considered before a discipline can be called a profession.
3. Enumerate five (5) characteristics of a profession.
4. Give two (2) reasons why environmental health is a profession.

7.0 REFERENCES/FURTHER READING

Arinola, A. M. "Lecture Notes on Profession."

Federal Republic of Nigeria. Official Gazette No. 172, Lagos Dec. 27th, 2002. Vol. 89.

Morris, P. (1976). *Contradictions in the Colonial Political Economy in Nigeria*. London: Rex Collins.

Oxford Advanced Learners' Dictionary (New 8th edition).

Vondeowu & Kwarteng, J. (1995). *Development of Training Material in Agriculture: A Course Manual*. Hong Kong: Colorcrata.

World Commission on Environment and Development (1987). *Our Common Future*. London: Oxford University Press.

UNIT 2 MEANING OF VOCATION

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Definitions of a Vocation
 - 3.1.1 Senses of Vocation
 - 3.1.2 Concept of Vocation
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

It will readily come to your memory the definition of profession given by Wikipedia Encyclopaedia as “a specialised occupation or vocation characterised by intensive training leading to a first degree and subsequent licensure by a regulatory body” in unit 1. The use of occupation or vocation to describe a profession will also attract your attention and you may be tempted to ask questions as to whether yours is an occupation or a vocation or is both an occupation and at the same time a vocation? To avoid these and other nagging questions that may cause confusion, you are given another privilege to learn about vocation in unit 2 of this module.

It is not enough to know that your work is a profession; you should be able to describe in details anything that may be coming up about your profession. Unit 2 will enrich and sharpen your skills and knowledge for your efficiency and effectiveness. Please, read this with maximum attention and concentration as you have been doing.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- define vocation
- explain senses of vocation
- describe the concepts of vocation.

3.0 MAIN CONTENT

3.1 Definition of Vocation

A vocation: (Latin *vocātiō* – a call, summons), is a term for an occupation to which a person is specially drawn or for which he or she is suited, trained, or qualified. Though now often used in non-religious contexts, the meanings of the term originated in Christianity.

3.1.1 Senses of Vocation

Use of the word “vocation” before the sixteenth century referred firstly to the “call” by God to the individual, or calling of all humankind to salvation, particularly in the Vulgate, and more specifically to the “vocation to the priesthood”, which is still the usual sense in Roman Catholicism. Roman Catholicism recognises marriage and virginity or celibacy as the two vocations. Martin Luther followed by John Calvin, place a particular emphasis on vocations, or divine callings, as potentially including most secular occupations, though this idea was by no means new.

Calvinism developed complex ideas about different types of vocations of the first type, connected with the concepts of Predestination, Irresistible grace, and the elect. There are the *vocation universalis*, the *vocation specialis*, only extended to some. There were also complex distinctions between internal and external, and the “*vocatio efficax*” and “*inefficax*” types of callings. Hyper-Calvinism, unusually, rejects the idea of a “universal call” to repent and believe, held by virtually all other Christian groups.

In Protestantism the call from God to devote one’s life to him by joining the clergy is often covered by the English equivalent term “call”, whereas in Roman Catholicism “vocation” is still used. Both senses of the word “call” are used in 1 Corinthians 7:20, where Paul says “Let every man abide in the same calling wherein he was called”.

3.1.2 Concept of Vocation

The idea of vocation is central to the Christian belief that God has created each person with gifts and talents oriented toward specific purposes and a way of life. In the broadcast sense, as stated in the Catechism of the Catholic Church, “Love is the fundamental and innate vocation of every human being”. More specifically, in the Orthodox and Catholic Churches, this idea of vocation is especially associated with a divine call to service to the Church and humanity through particular vocational life commitments such as marriage to a particular person,

consecration as a religious, ordination to priestly ministry in the Church and even a holy life as a single person. In the broader sense, Christian vocation includes the use of one's gifts in their profession, family life, church and civic commitments for the sake of the greater common good.

3.1.3 Modern Concept of Vocation

Since the establishment of Vocational Guidance in 1908 by the engineer Frank Parsons, the use of the term "vocation" has evolved, with emphasis shifting to an individual's development of talents and abilities in the choice and enjoyment of a career. This semantic expansion has meant some diminishment of reference to the term's religious meanings in everyday usage.

Vocational education training prepares learners for careers that are based in manual or practical activities, traditionally non-academic are totally related to a specific trade, occupation or vocation. In other words, it is an education designed to develop occupational skills.

4.0 CONCLUSION

In this unit, you have learnt the definition, senses and concept of vocation.

Inter-alia, Wikipedia encyclopaedia defined a profession as a specialised occupation or vocation. The use of the words occupation and vocation to describe a profession involved dealing almost extensively with 'vocation'.

Psacharopoulos et al. (1987) described four different types of vocation viz. parallel vocationalised system, diversification of the total system, vocationalisation of a part of the core of the curriculum and informal system. You are also able to fix environmental health into one of the four systems.

In this unit you learnt what a profession is and what a vocation is. That would have fully equipped you to determine whether environmental health is a profession or a vocation or it is both. You can answer correctly whether you are professional or not.

5.0 SUMMARY

A summary of the major points in this unit is that:

- Vocation is a term for an occupation. It has its origin from a Latin word 'vocatio' i.e. a call.

- The sense in which vocation was used in the early part of 16th century was restricted to the ‘Call’ by God.
- In the modern time 1908 when vocational guidance was established by Engineer Frank Parsons the use of vocation has evolved.

6.0 TUTOR-MARKED ASSIGNMENT

1. Define vocation.
2. Briefly explain how vocation was seen initially as a ‘Call’ by God.
3. Briefly explain the role of Engineer Frank Parsons in the evolution of vocation.

7.0 REFERENCES/FURTHER READING

- Aartsen, V. M. (2004). *Towards a Renewed Curriculum in Earth Resources and Environmental Geosciences at ITC*. Enscheda: University of Twente.
- Asker, V. D., Kuiper, W. J. & Haneyer, U. (2003). *Curriculum Landscapes and Trends*. Dordrecht: Klumer Academic Publishers.
- Bale, A. A. (2003). *Economic Development and Democracy in Ethiopia*. Rotterdam: Sanders Institute.
- Cailloids, F. (2004). Preparing Secondary School Students for Work in Europe. *Newsletter International Institute for Educational Planning*.
- Dyankov, A. (1996). *Current Issues and Trends in Technical and Vocational Education*. Paris: UNESCO.
- Psacharopoulos, A. (1987). *Vocational Education and Training in Developing Countries*. Oxford: Oxford University Press.

UNIT 3 HISTORY OF VOCATION

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 History of Vocation and Training
 - 3.1.1 Vocational, Educational and Training (VET)
 - 3.1.2 The Four Main VET Systems
 - 3.1.3 Profession and Vocation
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

In this unit, you will learn about the history of vocation and Vocational Education and Training (VET), the four main vocational education and training (VET) and the differences between a profession and a vocation. The intention is to reinforce what you have learnt in unit 4 for your proper understanding.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the history of Vocational Education and Training (VET)
- describe Vocational Education and Training (VET)
- enumerate the four main VET systems
- explain the differences between a profession and a vocation.

3.0 MAIN CONTENT

3.1 History of Vocational Education Training (VET)

The provision of vocational schools has a long history. Before the industrial revolution (between 1750 and 1830) the home and the apprenticeship system were the principal sources of vocational education. But societies were later forced by the decline of handwork and specialisation of occupational functions to develop institutions of vocational education (Dufty, 1962).

Manual training that involves general instruction in the use of hand tools was said to have developed initially in Scandinavia (1866). However,

vocational education became popular in the elementary schools in the United States after 1880 and developed into courses in industrial training, book keeping, stenography and allied commercial work in both public and private institutions.

As the Columbia Encyclopaedia (2001) noted some of the early private trade schools in the US include Cooper Union (1859) and Pratt Institute (1887), the Hampton Institute (1868) and Tuskegee Institute (1881). The agricultural high school (1888) of the University of Minnesota was the first regularly established public vocational secondary school that introduced extensive public instruction in agriculture.

The number of public and private vocation schools has greatly increased in the US since 1900. There was an impetus on vocational education during the World War II (1939 – 1945) when the armed service has great need for technician that the civilian world could not supply.

The United States is not the only society that appreciates skills acquired through vocational and technical education, many other countries of the world were also paying maximum attention to vocational education but Nigeria is neglecting this aspect of education.

3.1.1 Vocational Education and Training (VET)

The most extensive definition of Vocational Education and Training (VET) mentioned by UNESCO – UNEVOC International Centre (2003) is as follows: VET is a comprehensive term referring to those aspects of educational process involving in addition to general education, the study technologies and related sciences and the acquisition of practical skills, attitude, understanding and knowledge relating to occupation in various sectors of economic and social life”.

From the UNESCO convention on Vocational Education and Training (VET) the following can be added:

“It applies to all forms of technical and vocational education provided in educational institutions or through cooperative programmes organised jointly by educational institutions of one hand, and industrial, agricultural, commercial or any other undertaking related to the world work, on the other”.

VET consists of two parts: Vocational Education and Training. Vocational training is generally organised outside the formal school cycle and thus is of greater variety both in terms of training duration and entry requirements than vocational education (Gill and Fluitman, 2000).

Vocational training is different from in-service training because it is generally organised outside of the workplace and it is meant for those who are seeking work. The proportion of practical instruction in vocational training is higher than in vocational education, but lower than in-service training.

According to Smith and Ragan (1999), the difference between education and training is as follows:

- Education: all experiences in which people learn, most unplanned, incidental and informal.
- Training: instructional experiences that are focused upon individuals acquiring very specific skills that they will normally apply almost immediately.

3.1.2 The Four Main VET Systems

Despite differences in VET-systems throughout the world, Ishumi (1988) recognises four main VET-systems globally. These are:

- **Parallel vocationalised system:** Vocational education structures are offered parallel to traditional formal academic education. Areas in which subjects are given, for example agriculture, technical design and entrepreneurship.

Psacharopoulos (1987) also mentions this system in which traditional academic secondary education is offered next to secondary pure vocational education.

Cailloids (2004) mentions a more broad classification of VET. On one hand VET offered in separate technical or vocational schools. This kind of education is aimed at educating manpower (with average skills) for socioeconomic growth. *A disadvantage of this kind of education is that it is often seen as second-hand only meant for less capable students.*

- **Diversification of the total system**
Re-orientation and restructuring of the national education system in the direction of vocational orientation; in this system, theoretical reduction is being supplemented with practical fieldwork in agricultural projects and other areas. Psacharopoulos (1987) mentions comprehensive/diversified schools with academic education and pre-vocational subjects next to earlier mentioned subjects in agriculture, trade or industrial arts.

The second category of systems of Cailloids (2004) is VET offered in comprehensive schools with full or part-time vocational courses together with general and academic subjects. This kind of education is aimed at integrating of schooling and work, less emphasising elite scholastic knowledge, let students get acquainted with the practical application of theoretical knowledge, showing real working life and try to focus students' attitudes on society (so called socio-ideological orientation).

- Vocationalisation of a part of the core of the curriculum: This system incorporates introducing and formalising vocational subjects as an obligatory part of the curriculum. The vocational subjects are equal in weight and important with other parts of the curriculum.

This kind of education is aimed at influencing attitudes and interests of students to acquire talents and develop skills which are necessary for their future in the labour markets.

You should note here that it is this type of system that is being operated in our Schools of Health Technology, Hygiene or College of Health Sciences in Nigeria. Trainers are allowed to undergo theoretical class work and later sent out on internship to acquire practical vocational training embracing both affective (interest and attitude) and psychomotor (practical aspects) of EHO training.

- **Informal system**
Cheap informal training centres, besides formal vocational schools parallel to academic schools. The success of this school is owed to the variation and diversity of specialisation and enrolments. The disadvantages of this informal system include: firstly, it is often seen as third rank education and therefore traditional formal education is preferable. Secondly, the relation of education production in industry is often hanging over to production. Because of unsure and unstable subsidies of government and other organisations. It does not countervail against formal education. This kind of education aims to offer an alternative next to the existing formal system for young people who are not able to join regular secondary education. Psacharopoulos (1987) mentions another kind of system outside the school system; on the job training. Cailloids (2004) also mentions vocational education training through apprenticeship as his third option.

Take note that the four different types of VET systems have similarities

and obvious differences which will assist you to compare and contrast VET and profession. You will then be in a position to categorically say whether yours is a profession or a vocation or it is a vocationalised profession which is the next subtopic to be discussed in 3.1.6.

3.1.3 Profession and Vocation

Let me remind you that in unit 3 of this module, you learnt about the meaning of a profession and at the risk of frequent repetition – Wikipedia Encyclopaedia defined profession as a specialised occupation or vocation characterised by intensive training.

It is the use of occupation and vocation that informed efforts to ascertain whether environmental health is a profession or a vocation or it is both. Vocation is a derivative of a Latin word – *vocātiō* – (a call or summons) a term for an occupation to which a person is specially drawn for which is he or she is suited or qualified. Though now often used in non-religious contexts, the meaning of the term originated in Christianity (Adolphus, 2009).

Again, when you go through the historical background of the term vocation, it was initially restricted to Christian calling especially among the Catholic priests. But that was in the past; the term has crept out of religious circle and is now being used to describe various occupations and works.

Without any iota of doubt, environmental health is a profession as you should have learnt in this unit but if you take time to go through the training curriculum of EHO, you will realise, that it is a vocationalised profession. Since the inception of the training of EHO (Sanitary Inspectors) by Dr. Isaac Ladipo Oluwole in 1932, till date, trainees are to acquire theoretical classroom works and later proceed to acquiring practical vocational skills in rural and urban settings. This conforms the 3rd type of VET systems as categorised by Ishumi (1988) i.e. “vocationalisation of a part of the core of the curriculum”. In environmental health all the components which form the core of the curriculum are vocationalised – waste management, water quality management, housing, pest management, port sanitation and international regulations, control of communicable diseases etc.

However, the fact that the training curriculum of EHO satisfies the domains of cognitive, affective (interest and attitude) and psychomotor (practical) does not mean that every trainee exposed to the training will absorb it. There are those that are impervious to training and those that are not trainable.

If such trainees managed to acquire a professional certificate and are registered and inducted, they remain as quacks. They may by virtue of their official uniform and the umbrella of the EHORECON be seen as professionals, but since they cannot practise satisfactorily, they cannot call their profession a vocation.

There are some EHOs that can boastfully say “environmental health is their profession and their vocation” because they have all it takes to be in the profession. The choice is free, either to be a non-professional in the profession or to be a professional without vocation or a professional with vocation. There is no hiding place for quacks or pseudo EHOs.

4.0 CONCLUSION

In this unit, you have learnt about the history of Vocational Education and Training (VET), the four major Vocational Education and Training systems. You also learnt the differences between a profession and a vocation.

5.0 SUMMARY

A summary of the salient points in this unit is that vocational training started long ago between 1750 and 1830 and home apprenticeship but later when home apprenticeship got greatly reduced, societies were forced to formalise vocational training (Dufty, 1962). Some of the early private vocational training schools were located in the United States.

Remember also that VET as defined by UNESCO is a comprehensive term referring to those aspects of educational process involving in addition to general education, the study of technologies and related sciences and the acquisition of practical skills; attitude, understanding and knowledge relating to occupation in various sectors of economic and social life.

Do not forget that profession and vocation have relationship. Vocation – a Latin derivative ‘vocatio’ (a calling) i.e. a type of occupation or profession to which you are specially drawn by virtue of your training, examination, induction and interest. Hence, you have passion for it.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain in three or four sentences how home apprenticeship became what we now call vocational training today.
2. Define a vocation.

3. Enumerate three (3) differences between a vocation and a profession.

7.0 REFERENCES/FURTHER READING

Aartsen, V. M. (2004). *Towards a Renewed Curriculum in Earth Resources and Environmental Geosciences at ITC*. Enscheda: University of Twente.

Asker, V. D., Kuiper W. J. & Haneyer, U. (2003). *Curriculum Landscapes and Trends*. Dordrecht: Kluiver Academic Publishers.

Bale, A. A. (2003). *Economic Development and Democracy in Ethiopia*. Rotterdam: Sanders Institute.

Cailloids, F. (2004). Preparing Secondary School Students for Work in Europe. *Newsletter International Institute for Educational Planning*.

Dyankov, A. (1996). *Current Issues and Trends in Technical and Vocational Education*. Paris: UNESCO.

Psacharopoulos, A. (1987). *Vocational Education and Training in Developing Countries*. Oxford: Oxford University Press.

MODULE 3

Unit 1	Meaning of Ethics
Unit 2	Ethical Concepts
Unit 3	Ethical Foundation of Environmental Health Management (Ethical Theories)

UNIT 1 DIFFERENT MEANING OF ETHICS

CONTENTS

1.0	Introduction
2.0	Objectives
3.0	Main Content
	3.1 Evolution and Meaning of Ethics
	3.1.1 Types of Ethics
	3.1.2 Rationale of Ethics for Public Health Professionals
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Reading

1.0 INTRODUCTION

In this unit, you will learn about the evolution of ethics, rationale or why you should know something about ethics and also the different meanings of ethics. This unit reinforces what you have learnt in unit 3 of module 2.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- narrate the evolution of ethics
- enumerate reasons for learning about professional ethics
- explain the ethics in different ways
- explain ethical concepts.

3.0 MAIN CONTENT

3.1 Evolution and Meaning of Ethics

In every society, people try to live in harmony with one another. Peace is essential for co-existence of people within a given society, community, country, family or household. To achieve this purpose, there are guidance, policies, codes, rules, laws or regulations which

prescribed and guides the behaviour of people. These codes of conduct or rules, regulations, etc. which prescribed and guides the behaviour of people is called ethnics. Ethics is as old as the creation of the universe. In the book of Genesis, God gave Adam the first code, when He commanded Adam not to eat the fruit of knowledge of good and evil. Some historical antecedents have also added credibility to the fact that ethics is as old as the creation. The Ten Commandment in the Bible, the code of Hammurabi, the Buddha and some religious literatures have evidenced this fact, as some of the laws used at the time to moderate human behaviour.

Merriam Webster described ethics as a set of moral principles or values you may derive in your own personal ethics from many sources: your family and culture, your religion or faith; the legal system where you live etc. Ethics is defined by many dictionaries as a moral principles or framework, or moral rules (Oxford English, 1999, Oxford Illustrated Dictionary, 1983). However, Wikipedia Encyclopaedia, states that ethics is a major branch of philosophy, encompassing right conduct and good life. It is significantly broader than the common conception of analysing right and wrong. The main idea here is “the good life”; the life worth living or simply satisfying. This is no doubt more important than moral conduct, which is held by many philosophers.

Even before we started studying ethics, we already have a sense of what constitutes dos and don'ts. Essentially, ethics did not originate from Greece but the documentation of ethics originated in Greek in the 5th century BC after the work of Aristotle's Nicomachean ethics. Ever since then, several documentations have been made by scholars who carried out work on the subject, generating different definitions of the word ethics. Some philosophers saw ethics as a sub-branch of philosophy under axiology and referred to it as moral philosophy. Here, morality is seen as the basic for studying ethics. Other philosophers would classify philosophy under five headings as metaphysics, logic, aesthetics, politics and ethics. Metaphysics generally concerns itself with that which does not appear to the senses and explanation of nature of being as different from the study of material things such as essence, existence, goodness and the origin, nature and the structure of the universe.

Logic is a normative science which directs operation of the mind in attainment of truth. It deals with the norms of correct thinking and reasoning. Aesthetics deals with the norms of beauty while politics is concerned with the ways that the society is governed. In particular, politics deal with the way power is divided and used, the rights of state over individuals; the origin of a state etc. Ethics, on the other hand deal with norms of right conduct and the values related to human conduct. Ozumba (2001) defined ethics as that which deals with judgement as to the righteousness or wrongness, virtuous or vicious, desirability or

undesirability, approval or disapproval of our actions. This definition places standards for measuring human conduct and therefore, generates series of questions as to the universality of the parameter for measuring moral standard as being desirable or undesirable, virtuous or vicious etc. Omoregbe (2003) explained ethics in two different forms. First, as a normative science, which deals with norms or standard of human behaviour i.e. to describe the way men do behave in practice. Secondly, ethics also state the way men ought to behave. This behaviour is absolute and universal and does not depend on one's opinions, wishes and desires. For example, stealing, armed robbery, embezzlement of public fund, bribery and corruption, dishonesty, adultery etc. Humans are rational being. We reason and make choices among alternatives. Because of this choice, it places our actions on what "ought" to be and what "is". In some cases, we may make the right choice or what we think is the right choice. In other times, we acknowledge the 'ought' when we find that we have made the wrong choice. Ethics is concerned with what ought to be rather than what it is.

The 'ought' is more apparently good and involves alternatives; duties and obligations. Alternative involves choices in more than one course of action; duties are that which we are compelled by law to do, while obligations are that which we do devoid of inclination.

For example, at the end of six months of learning at a college of health science and technology, students write probation examination over which those who fail the examination are asked to withdraw from the probation. Is this ought to be or a means of checking overpopulation and selecting the best students for any of the programmes? In health field, certain conditions call for the thorough examination of the alternatives available to us before we take decisions. This is why ethics has been described as a system of moral principles by which human actions and proposals may be judged, good or bad, right or wrong, just or unjust. It examines alternative views of what is good and right and explains ways of gaining the moral knowledge we need.

3.1.1 Types of Ethics

Ethics is divided into three fields namely – descriptive, meta-ethics and normative.

Descriptive ethics: This types of ethics is concerned with examining different moral standpoint and discover what makes them moral, what makes them different and what they have in common as moral positions. For example, in Nigeria, it is an abomination, sin or criminal matter to be involved in adultery with a friend's wife or husband whereas in some parts of India, sleeping with a friend's wife is a mark of hospitality.

Descriptive ethics is based on observation of prevailing facts in the society.

Meta-ethics: Meta-ethics deal with such concepts as goodness, badness, right, wrong, evil, obligation, duty, inclination, moral or immoral, just or unjust etc. It asks such questions as what good life is or what constitute a moral action as against immoral act. Meta-ethic is divided into naturalism and anti-naturalism.

Naturalism – They explain moral goodness in terms of natural objects. It holds that moral issues are a function of the circumstances and environment which embody facts that are perceptible or observable. For example, naturalism defines moral goodness in terms of pleasure and describes a good action as that which produces pleasure and a bad action as one which produces pain.

Ethical anti or non-naturalism: This is ethical theory which opposes naturalism and insists that even if a good thing is pleasant it does not mean that all pleasure are good since the word good cannot be defined. The key proponent to this theory is that moral motions are not to be seen as having natural dimensions and therefore, morality is not a function of circumstance, environment or factual state of affairs. Righteous or wrongness of an action can only be determined by intuition.

Prescriptive ethics: This is an aspect of meta-ethics that are used to prescribe a course of action. For example, when I say to a friend, this orange is sweet, it means I am indirectly telling him to buy or have the orange, similar to when I say this orange is not good. It means I am telling my friends not to buy or have the orange. Moral statements are universal i.e. the same all over the world. For example, “stealing is bad, is a moral statement since stealing is bad all over the world, whereas when I say do not commit abortion. This is an imperative statement.

Teleological ethics: This branch of ethics is concerned with the need for all our actions to be tailored along the lines of end achievement. In this theory, judgements of obligation are held to be dependent on judgements of value. For example, I am in the college of health science and technology because I am sure of employment at the end of the programme.

Deontological ethics: Here value is not primarily held as what determines what is right. An action may be held to be a right action without regard to its reward. In deontological ethics, goodness is associated with value whereas righteousness is association with obligation. Certain actions are obligatory whether they produce goodness or not. For example, helping an accident victim on the way is

entirely obligatory. Once under obligatory, a man ought to attempt to fulfil it.

Ethical relativity: Relativists argue that moral judgements of men are derived from the customs of the society in which they live. Essentially, the moral terms such as goodness or wrongness or righteousness, badness, etc. bear the meaning which have been approved or disapproved by a particular society. It upholds the view that ethical judgements must be perceived as being different due to the underlying differences that exists among men and amongst societies. So each society determines what constitutes right or wrong, good or bad. This means that some course of action may be right in a particular culture and bad in another culture.

Ethical absolutism: This contrast with the theory of relativism. Absolutism is held strictly by Christian monotheism in which morality is conceived as that being issued by God which cannot be bent by any culture or society. As noted by a famous Greek philosopher Aristotle “there is only one good life for all men.”

Ethical subjectivity: This theory explains different ways in which people express their feelings towards an action. Further, explains ways in which people express their approval or disapproval about the actions of others, their behaviour and attitude. For example, love, kindness, hatred, disapproval or dissatisfaction. Certain actions can be subjectively expressed by individuals in their own perspective. For example, ethics may be perceived by individuals as the study of morals while others will see it as a system of moral codes. These expressions are subjective.

Ethical objectivity: When we say that something is objective, we are in other words saying that such a thing has only one answer in every society or culture. Essentially, it means such a thing is universal. For example, stealing is universal in the sense that everywhere we find rulers of conduct i.e. prescribing what is to be done or not to be done, stealing is usually abhorred.

Normative Ethics: This is primarily concerned with establishing standards or norms for conduct commonly associated with general theories about how one ought to behave or live. Normative ethics is also concerned with particular concrete issues and how to evaluate or judge them.

3.1.2 Rationale for Ethics for Public Health Professionals

The mandate to assure and protect the health of the public is an inherent moral one. It carries with it an obligation to care for the well-being of others and it implies the possession of an element of power in order to carry out the mandate. The general conduct of public health practice concerns the professionals, individuals and the community at large.

Ethical issues often arise as a result of conflict among competing sets of values, such as, in the field of public health, the conflict between the rights of individuals and the needs of the communities.

The code of ethics for public health will clarify the distinctive elements of public health and the ethical principles that follow from or respond to those distinct aspects. Public health workers will be abided by code of ethics of public health in rendering public health services.

The concerns of public health are not fully consonant with those of medicine; thus we cannot simply translate the principles of medical ethics to public health. For example, in contrast to medicine, public health of which environmental health is a branch is concerned more with population than individuals and more with prevention than with cure.

In the context of environmental health services, the ethical issues include equity, justice, equality and human rights. These ideas should continue to be a primary importance in providing environmental health services.

Health education, human nutrition, housing, waste management, pest management, basic hygiene and sanitation, prevention and control of communicable diseases are major areas of focus in environmental health. By the time all these elements are provided adequately and continuously without interruption, environmental health will have meaning.

It is highly unethical to keep people ignorant about causes, control and prevention of diseases, about a healthy lifestyle and about the social and community responsibilities of the people. Yet, this is exactly what happens in the absence of public health education.

4.0 CONCLUSION

In this unit, you learnt about the evolution and meanings of ethics. You also knew something on the types of ethics and the rationale for studying ethics. It is my hope that you will be able to narrate the evolution of ethics, enumerate types of ethics and list reasons why you are studying the subject.

5.0 SUMMARY

This unit focused on the evolution of ethics. You learnt that in order to ensure peace and harmony in the society, there must be rules and regulations (ethics) to be followed. Ethics has been in existence since the time of Adam and Eve in the Garden of Eden when they were instructed to eat certain fruits and not eat the other. Hammorabi the king of Babylon and Budah also had code of ethics for their respective communities as far back as 5th century BC.

You also learnt in the unit types of ethics like descriptive and meta-ethics and their respective subdivisions.

Do not also forget, the various reasons (rationale) why you are studying ethics as enumerated and discussed in this unit.

6.0 TUTOR-MARKED ASSIGNMENT

1. Briefly narrate the history/evolution of ethics.
2. List two (2) main types of ethics.
3. Enumerate five (5) reasons why ethics is studied.

7.0 REFERENCES/FURTHER READING

Amadi, C. I. (2006). *Fundamentals of Health Ethics*. Port Harcourt: Stapsa Printing Press.

Arinola, A. M. (n.d). "Notes on Ethics."

Denloye vs Medical and Dental Practitioners Disciplinary Committee.

Imhonobe, S. O. (2009). *The Lawyer's Deskbook*. Nigeria: Rehoboth Publishing.

Kodilinye, G. & Aluko, O. (2003). *Nigeria Law of Tort*. Ibadan: Spectrum Books Limited.

Ogbu, O. N. (2002). *Modern Nigeria Legal System*. Enugu: Cidjap Publishers.

Ukah, A. A. (2010). "Ethical Issues in Environmental Health Practice as it applies to Professionals in the Training Institution." A paper presented at the National Forum of Environmental Health Tutors at Colleges.

UNIT 2 ETHICAL CONCEPTS

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Definition of Concepts
 - 3.1.1 Ethical Concepts
 - 3.1.2 Morality
 - 3.1.3 Wrong
 - 3.1.4 Good
 - 3.1.5 Bad
 - 3.1.6 Duty
 - 3.1.7 Obligation
 - 3.1.8 Inclination
 - 3.1.9 Negligence
 - 3.1.10 Liability
 - 3.1.11 Justice
 - 3.1.12 Punishment
 - 3.1.13 Honesty
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

In unit 1 you learnt about the different meanings of ethics, type of ethics and the rationale for studying the subject. Unit 2 will build on and reinforce unit 1. Unit 2 deals with ethical concepts i.e. an idea or principle connected with abstract. It will help you build up your virtues, skills and competencies.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the term – concept
- list the different types of ethical concepts
- explain ethical concepts.

3.0 MAIN CONTENT

3.1 Definition of Concepts

3.1.1 Ethical Concepts

Now that you have learnt about the meanings and types of ethics, what you are about to read on is Ethical Concepts. They will give you direction and guide to have a clear picture of situations, issues and ethical challenge so that you will always be conscious of your actions. Concept is simply an idea or a principle that is connected with abstract. These are words that are commonly used in the study of ethics that may appear to have more than one meaning. The explanations below are the operational expressions of these words as they are used in this text. They include:

3.1.2 Morality

The online dictionary described morality as a code of conduct in matters of wrong and right. Morals may be created by and defined by society religious body or even individual conscience. Mandal (2004) said that 'morals' are actually certain yardsticks in our world which work as prescription to human behaviours. According to William (1963) morality refers to norms of conduct whose legitimacy is justified on the ground that they are good or right or necessary for social welfare or social life.

From the various definitions, we can deduce that morality is concerned with:

- what is good and bad
- what is right and wrong
- it is based on what the society considered or their religion or individuals consider as reasonable.

Therefore, we can say that morality deals with what one considers as standard behaviour which makes it vary from one person to another and from one society to another.

3.1.3 Wrong

It is the opposite of rightness and both words remain in a competitive relationship essentially, what is not right is wrong, which means such actions are not acceptable. Wrongness, when perceived intuitively is an imagination of our minds since there is nothing out there as wrongness. For example, disappointment by a friend is wrong. Whereas stealing in a bank is equally wrong, wrongness therefore is something objective and

universal and something that is multidimensional. In my mind, wrongness is objective, what is wrong is wrong and should be seen as such irrespective of our opinions or circumstances.

3.1.4 The Good

Good or goodness describes our values. It is a measure of the value we cultivate and cherish. Good and bad are binary opposites but not contradictory as wrong and right. This is because good and bad are values, which have societal ratings from good to bad, values are things we desire and since values are desirable, the good should be seen as having more value than the bad. Essentially, we cannot talk about value, if we do not view it from both good and bad.

3.1.5 Bad

As noted earlier, the good and the bad complement each other as good highlights the bad and the bad also highlights the good. This means that the bad is not the same as wrong since without the bad, we cannot know the good. Badness has different degrees such as bad, worse and worst. That means that certain badness has the least good.

3.1.6 Duty

A duty can be defined as any action, performance, task or observable owned by a person in an official capacity. From the above definition or description of duty, you can infer that duty is a legal obligation which must be:

- obeyed by a person
- owned by another person and
- there must be a need to be satisfied.

Therefore, to you, you are on duty, means you are under legal obligation. As an EHO you owe an Act to another person or persons and the Act must be satisfied.



Fig. 2.1: A Sanitarian performing one of his duties

We have:

- **Absolute duty** – a duty without any corresponding right attached, and which you have to perform.
- **Contractual duty:** This is a duty which arises because of the nature of the contract one has entered into. The law requires you to obey the terms or agreement of the contract.
- **Delegable duty:** This is the type of duty that you owed but can still be transferred to another person usually a subordinate to perform on your behalf. It allows for load shedding but you are still directly or indirectly responsible for the failure or success emanating from the duty performed.
- **Non-delegate duty:** This is the duty you cannot transfer to your subordinate because of its sensitive nature. This is in bid to conserve official secret.
- **Legal duty:** This is the type of duty that is obligatory, absenteeism, abscondment, insubordination, may attract sanctions.
- **Moral duty:** This is the type of duty based on conscience or sequel expectation. It arises as a result of what the society considered morally acceptable and a breach of it is considered morally wrong. For example, discretionary extension of the period of an Abatement Notice when it has expired is a moral duty.
- **Negative duty:** This is the type of duty that forbids somebody from doing or taking certain actions either based on competence, capacity or status. For example, when an EHO is taking bribe to aid and abet street trading is a negative duty.
- **Positive duty:** A positive duty is that which requires a person to perform or carry out some definite actions or to continuously engage in a particular course of action especially when such conforms with the norms and standard of that community or society.

- **Breach of duty:** This is the violation of a legal or moral obligation. This normally attracts legal sanctions or society condemnations.

3.1.7 Obligation

Ozunda (2001) described obligation as a kind of necessity on the part of the person either to the necessity of doing the act or the act which is necessary for one to do. Obligation is a thing we ought to do without inclination. This means, the things we do without attachment to either reward or punishment. Immanuel Kant uses obligation to explain a moral act. Under obligation is moral otherwise immoral, “duty” is an expression of obligation. Duty is a call which we are compelled to fulfil.

3.1.8 Inclination

This is an act done out of either fear of punishment or desire for a reward. For example, “eye service” is done out of inclination; keeping your environment clean because you are expecting the visit of a health officer. Action done under inclination is regarded as immoral.

3.1.9 Negligence

According to Kodilinye and Aluko (2003), negligence is the breach of a legal duty to take care, which results in damage or injury or loss to the plaintiff.

Lord Wright in the case of *Lockgilhy Iron and Coral Co. V. McMillan* (1934) Ac lat p. 23 explained that “in strict legal analysis negligence means more than heartless or careless conduct whether in omission or commission. It properly connotes the complex of duty breach to damage thereby suffered by the person to whom the duty was owed.

In a simple language, negligence is the breach of duty of care due to the failure to exercise the standard of care required of a reasonable man who would exercise it in a similar situation that have resulted to injury to another person. Inability of an EHO to abate a dilapidated building the negligence of which has resulted in a collapsed wall killing or injuring occupiers of a building is negligence.

We have criminal, contribution, joint, and involvement negligence. When an EHO is fully alert to his/her official responsibilities with keen interest, none of the negligence would arise or occur. You should watch out.

3.1.10 Liability

Black's Law Dictionary (9th edition) defined liability as the quality or state of being legally obligated or accountable.

Liability can also be defined as the state of being legally accountable for the damages or injuries caused to another person by the defendant in the performance of his/her duty. Implicit in the definitions is that a person is said to be liable if he/she is under law bound or expected to account for any injury or damages caused to another person as a result of his breach of duty or care while performing his/her duty. It is also important to add that liability can also be third parties and not only the party having direct dealing with the defendants.

When an EHO neglects his/her official duty he/she is liable.

3.1.11 Justice

Justice is a virtue. It is the quality of being right and fair. Justice means given to every man what is due to him. Often justice is associated with equity. This means all men are equal and deserve to be treated equally. Justice may at times attract severity.

3.1.12 Punishment

This means infliction of pains (physical, mental, social etc.) for a wrong doing or violation of the law. Its intention is to deter the offender and others from future offences.

There are three types of punishment. The first is the *determent punishment*. The intension of this type of punishment is to discourage or hinder somebody from the commission of the act that the society abhors. The second is the *reformative punishment*. This type of punishment is desired to help the offender to become a better person, for example, flogging a child for stealing in order to express moral disapproval. The last is the *retributive punishment*. This type of punishment makes the offender suffer for what he has done. "The seed thou soweth, shall thou ripe" or "the soul that sinneth, shall die".

3.1.13 Honesty

Honesty is often associated with truthfulness and the fear of God. Honesty entails moral integrity and high values.

4.0 CONCLUSION

In this unit, you have learnt what is meant by ethical concepts. This knowledge will enable you blend legality with morality, so that you need not perform your official responsibilities under any inclination but as moral obligation in which your conscience shall serve as a watchdog for all that you do, say or think.

The various ethical concepts discussed in this unit are not exhaustive but they are fundamental to environmental health services. You will remember that one of such ethical concepts is honesty which is always the best policy. In the next unit, you are going to learn about the various types of ethical theories. The sequence of discussing ethical theories subsequently after ethical concepts is strategic to ensure continuity of learning process.

5.0 SUMMARY

The salient points in this unit include:

- The definition of concept as an idea or principle that is connected with abstract.
- Ethical concepts like morality, wrong, good, bad, duty, negligence among others were also explained. You would have also noticed in this unit that relevant, practical and simulating examples were used to illustrate ethics and its various concepts to sensitise you applying them to live situations especially in implementing regulating and enforcing environmental health services.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain the term concept.
2. List five reasons why you study ethics.
3. Explain the following ethical concepts:
Morality, Duty, Negligence, Justice, Honesty,

7.0 REFERENCES/FURTHER READING

- Amadi, C. I. (2006). *Fundamentals of Health Ethics*. Port Harcourt: Stapso Printing Press.
- Arinola, A. M. (n.d). "Notes on Ethics."
- Denloye vs Medical and Dental Practitioners Disciplinary Committee.
- Imhonobe, S. O. (2009). *The Lawyer's Deskbook*. Nigeria: Rehoboth Publishing.
- Kodilinye, G. & Aluko, O. (2003). *Nigeria Law of Tort*. Ibadan: Spectrum Books Limited.
- Ogbu, O. N. (2002). *Modern Nigeria Legal System*. Enugu: Cidjap Publishers.
- Ukah, A. A. (2010). "Ethical Issues in Environmental Health Practice as it applies to professionals in the training institution." A paper presented at the National Forum of Environmental Health Tutors at Colleges.

UNIT 3 ETHICAL FOUNDATION FOR ENVIRONMENTAL MANAGEMENT (ETHICAL THEORIES)

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Theory - What is a Theory?
 - 3.2 Naturalist Moral Philosophers
 - 3.2.1 Right-Based Theory
 - 3.2.2 Duty-Based Theory
 - 3.3 Humanist Moral Philosophers
 - 3.3.1 Utilitarianism
 - 3.4 Virtue Based Theory
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

US Physicist Mvin Weinberg (1988) claims that today's environmental health problems are relatively trivial; although many aspects of human well-being are influenced by the environment. Weinberg says environmental health problems are sensationalised by laymen. Public interest activist and attorney Ralph Nader thinks Weinberg is wrong (Nader, 2000). He believes that many of today's public health problems are substantial, increasing and largely environmentally induced.

Who is right about environmental health threats – the Mvin Weinbergs or the Ralph Naders of the world? To answer this question, it is important to examine environmental health problems faced by at least three distinct groups – workers, the public and the poor or members of the minority groups.

In evaluating the extent of environmental health threats, misconducts, misdemeanour, negligence etc., ethical concepts and ethical theories are very important. They explain the application of such concepts like duty, law, honesty, negligence and punishment among others.

Environmental health ethics has become an integral part of all of our lives. Our water resources, food, developing community and life are embedded with underlying environmental concerns that call us to consider our ethics, politics, health and safety. EHOs need to learn to

examine environmental decision making and ethical reasoning to become empowered, foreseeing thinkers in a world of vanishing resources and toxicity.

In ethics, as in science, mere opinion are nice to have, but they must be supported by some sort of reason or evidence that cause us to believe in their truth. Otherwise there is no way to prefer or choose one opinion over another.

When it comes to environmental ethics, this is precisely what we must do:

- choose the best strategy
- identify the most blameworthy action
- select the healthiest outcome etc.

In unit 2 various ethical concepts were enumerated and explained. In unit 3 you will learn about ethical theories to complement ethical concepts. Knowledge of unit 3 will further sharpen and enlighten your sense of value and judgement thus your professional practice will be greatly enhanced.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the term theory
- list the various ethical theories
- apply ethical theories in solving environmental issues, problems and challenges.

3.0 MAIN CONTENT

3.1 Theory — what is Theory?

In thinking about the application of ethical theories to solving environmental health problems, we need to know what the term – theory stand for. Theory according to Oxford Advanced Learners' Dictionary is a formal set of ideas to explain why certain things happen or exist.

This definition of theory confirms what was said in the introduction of this unit, that ethical concepts and ethical theories are very useful in solving environmental issues and environmental challenges. Some scholars have thought about environmental health ethics in three overlapping ways:

- professional ethics (the values that help environmental health professionals to act in virtuous way)
- applied ethics (the value that help to illuminate hard problems in environmental health policy and practice)
- advocacy ethics (the overarching value of population health and social justice).

Professional ethics are concerned with the ethical dimension of professionalism and the moral trust that society bestows on environmental health professionals to act for the common welfare. This form of ethical discourse stresses the distinct history and traditions of profession, seeking to create a culture of professionalism among the practitioners. It instils in professionals a sense of public duty and trust (ethical concepts). Professional ethics are role oriented, helping practitioners to act in virtuous ways as they undertake their environmental services.

Applied environmental health ethics are concerned not so much with the character of professionals but with the philosophical knowledge and analytic reasoning necessary for careful thinking and decision making in creating and implementing environmental health policy.

Advocacy ethics is formed by the single overriding value of a healthy community. Under this rationale, public health authorities think they know what is ethically appropriate and their function is to advocate for that social goal. This populist ethic serves the interest of population, particularly the powerless and oppressed and its methods are principally pragmatic and political. Environmental health profession strives to convince the public and its representative political bodies that healthy populations, reduced inequalities and social justice are the preferred societal responses.

With the definition of the term 'theory' and the explanation on the three types of environmental health ethics viz., professional ethics, applied and advocacy environmental health ethics, the foundation is laid for a better understanding of the various theories of ethics. Let us consider the following ethical theories:

3.2 Naturalist Moral Philosopher

Environmental economics is concerned with the allocation, distribution and use of environmental resources. To some extent, these matters can

be analysed in a framework that does not require the adoption of any particular ethical viewpoint.

A fundamental distinction can be drawn between two broad families of ethical systems, humanist and naturalist moral philosophies. In humanist philosophy, rights and duties are accorded exclusively to human beings, either as individuals or as communities. Whilst humans may be willing to treat other species tenderly or with respect, non-human things have no right or responsibilities in themselves. A naturalist ethic denies this primary or exclusivity to human beings. In this ethical framework, values do not derive from human beings, have no human psychological basis, nor reside in humans exclusively.

Rather, rights can be defined only with respect to some natural system, including living and non-living components. A classic exposition of this ethic is to be found in Aldo Leopold's *A Sand County Almanac* (1949).

3.2.1 Right Based Theory

A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise. It is probably fair to say that this position is taken by a large number of environmentalist writers. Peter Singer (1993) describes it as a 'deep ecology' ethic. For example, when industrial developments are being proposed that would entail large environmental impacts, a deep ecologist might argue that the project would not be right if significant disturbances to affect ecosystems are likely to occur. What is of particular interest is the inference for policy from this ethical perspective. Presumably, if an action is deemed not to be right, it should not be done. Given that a large part of human behaviour does have 'significant' ecological implications, it seems likely that much current economic activity would be regarded as morally wrong by a naturalist philosopher, and the requirement of preserving the integrity of the biotic community, if interpreted strictly, it could prohibit a large proportion of all conceivable human behaviour.

The implications of a thorough-going adherence to such a moral philosophy seem to be quite profound, although much presumably depends upon how strictly the word significant is to be interpreted. It appears to be the case in practice that arguments based on a naturalist ethic tend to draw a distinction between projects having any ecological impact and those having significant impacts on parts of the biosphere considered to be particularly deserving of safeguard, perhaps because of their unusualness or scarcity.

3.2.2 Duty Based Theory

Many of the recent writings have made use of Immanuel Kant's categorical imperative as the basis for ethical behaviour. In Kant's philosophy, the basis of moral behaviour is to be found in duty and the adherence to rules.

For Kant, an action is morally just only if it is performed out of a sense of duty, and is based upon a valid ethical rule. Kant argues, in terms of the consequence or outcomes of an action, but only in terms of whether the action is undertaken in response to valid ethical rule.

But what is a valid rule? According to Kant, rules that are just or valid are universal rules; they are made valid by their universality, the property that they can be applied consistently to every individual. He writes: I ought never to act except in such a way that I can also wish that my maxim (rule) should become a universal law.

The principle is Kant's categorical imperative. It is categorical as it admits of no exceptions and imperative as it gives instructions on just behaviour. So, far Kant, the basis of ethical behaviour is found in the creation of rules of conduct which each person believes should be universalised. For example, I might argue that the rule "No person should steal another's property" is an ethic that everyone should be bound by that rule.

One categorical imperative, Kant suggests, is the principle of respect for persons. This states that no person should treat another exclusively as a means of his or her end. It is important to stress the qualifying adverb exclusively. In many circumstances we do treat people as means to an end; an employer, for example, regards members of his or her workforce as means of producing goods, to serve the end of achieving profits for the owner of the firm. This is not wrong in itself. What is imperative, and is wrong if it is not followed, is that all people should be treated with the respect and moral dignity to which any persons is entitled.

Kant was a philosopher in the humanist tradition. His categorical imperatives belong only to the domain of human creatures, and respect for persons is similarly restricted. Writers in the naturalistic tradition hold that such respect should be accorded only to humans. Richard Watson (1979) begins from this Kantian imperative of respect for persons, but amends it to the principle of respect for others. He then discusses who is to count as 'others'. In order to answer this question, Watson makes use of what is known in philosophy as the principle of reciprocity. Reciprocity refers to the capacity of beings to knowingly act with regard to the welfare of others. Many writers argue that what makes humans moral agents whereas other beings are not is that only

humans have this capacity for reciprocity: that is, they can act in ways that consciously take into account the welfare of others. Whilst accepting much of this, Watson denies that only humans have the capacity for reciprocal behaviour. In his opinion, reciprocal behaviour is also evident in some other species of higher animal, including Chimpanzees, Gorillas, dolphins and dogs.

Such animals, Watson argues, should be attributed moral rights and obligation at a minimum; those should include intrinsic rights to life and to relief from unnecessary suffering. The validity of Watson's argument depends upon these higher forms of non-human animals actually possessing this capacity for reciprocity, and so being able to act as moral agents, rather a moot point. But note that even if one were to accept the validity of Watson's position, it still leaves considerable scope for deciding the relative weights that should be accorded to human and non-human interests when choices are being made.

What bearing do these matters have on the economic analysis of environmental issues? Human behaviour has many impacts on the world around us on the natural environment, in other words. The environmental impacts of our behaviour are pervasive, affecting the conditions of existence of almost all plants and animals, and influencing the relationship and evolution of the component parts of the biosphere. When humans take economic decisions, to whom or to what do we owe obligations? Is it only human interest that matter or have a moral duty to take account of the interest or right of things other than humans.

You have just read that Richard Watson believes that humans do have an obligation to others – specifically to some higher – order animals that he claims can act consciously with regard to others. Many people regard this position as being too restrictive, and believed that human obligations extend to broader classes of 'others'. The philosopher G.J. Warnock grappled with the concept of consideration, the circumstances which imply that something has a right to be considered (its interests be taken into account) in the conscious choices of others. Warnock concluded "that all sentient beings" – that is, beings which have the capacity to experience pleasure or pain – deserve to be considered by any moral agent. So for Warnock, when you and I make economic or environmental decisions, we have a moral obligation to give some weight to the effects that our actions might have on any sentient being.

Peter Singer (1993) also arrives at this conclusion, but from a utilitarian standpoint. In his view, all sentient beings have utility functions. Utility maximisation should take place over all utility functions, not just those of humans.

Many naturalist philosophers, whilst agreeing with the general premise that not only human interest matter, argue that the condition of sentience is itself too narrow. Our obligations to others extend far beyond the class of other animals that can experience pain and pleasure. Kenneth Goodpaster (1978) conclude that all living things have right to be considered by any moral agent. The philosopher W. Murray Hunt adopts an even stronger position. He concludes that 'being in existence', rather than being alive, confers a right to be considered by others. Gunt also said that all this things which exist, living or dead, animate or inanimate, have intrinsic rights. This is, in effect, the deep ecology position of Leopold mentioned earlier.

3.3 Humanist Moral Philosophers

It is useful to consider two broad strands within the humanist moral philosophy tradition, the utilitarian and libertarian schools. Whilst both see right as residing exclusively within humans, they differ in how outcomes are to be assessed. Utilitarian philosophers judge outcomes in terms of the degree of utility which is achieved by society as a whole. I shall attempt to ascertain what utility consists of in this unit, for the moment, I interpret it to mean happiness or pleasure in society is high. Not surprisingly, we shall see that if utilitarianism is to be useful as a practical principle it will be necessary to specify what it means when one refers to the total level of happiness or pleasure in society.

Libertarianism asserts and is built upon the fundamental inviolability of individual rights. There are no rights other than the rights of individuals and economic and social behaviour is assessed in terms of whether or not it respects the rights of individuals. Actions that infringe individual right cannot be justified by appealing to some supposed improvement in the level of 'social well-being' or 'social good' has no meaning except that of a situation in which individual rights are respected. Nor is it meaningful, in a liberation framework, to define community or group rights. Clearly, this perspective carries profound implications for political and economic behaviour, and for human activity with environmental impacts. We will examine the implications of a libertarian ethic shortly, but first we examine utilitarianism and the way in which it has been used in environmental issues.

3.3.1 Utilitarianism

Utilitarianism originated in the writings of David Hume (1711-1776) and Jeremy Bentham (1748-1832), and found its most complete expression in the work of John Stuart Mill (1806-1873), particularly in his utilitarianism (1863). Unlike rules-based moral philosophies, such as that of Kant, utilitarianism is a consequentialist philosophy; the moral worth of an action is determined solely by the consequences or outcomes of the action.

What kind of outcome is ethical praise worthy according to utilitarian? Classical utilitarianism, as developed by Jeremy Bentham and John Stuart Mill, judge actions solely in terms of their effect on the 'good' of whole society. More specifically, Mill proposes the principle of utility or the 'greatest happiness principle' as the foundation of an ethical theory. Actions are right or just in proportion to the extent to which they tend to promote happiness, pleasure or the absence of pain. Pleasure and the absence of pain are the sole desirable ends of human activity.

Classical utilitarianism possesses three main components:

- an assertion that outcomes can be assess only in terms of the extent to which they contribute to the social good
- a criterion as to what constitutes the social good
- the principle that individual good or well-being is cardinally measurable and comparable over persons and time.

The first component states that behaviour should be directed to producing the greatest possible amount of good for all persons, considered as a single group. The second is concerned with a criterion for good. Early utilitarian writers tended to interpret this rather narrowly: the good of an individual (his or her utility) was equated with the individual's pleasure or happiness. The social good is some aggregate of individual utilities. Subsequent utilitarian writers have often adopted a broader view, arguing that other values, such as friendship, knowledge, courage and beauty, have intrinsic worth, and so affect individual utilities and the social good. One of the principal goals set by the early utilitarian thinkers was to establish precisely what utility consisted of and what things conferred utility.

For the majority of economists, whilst there may be disagreement as to what utility is and from what it derives, there is a consensus that the only relevant utilities are human utilities. But it is not of course the only position that one could take. It was mentioned earlier, a conclusion reached by the philosopher Peter Singer in his book *Practical Ethics*, Singer adopts what he regards as being a utilitarian position, but he

applies the concepts in a rather different way. All 'sentient beings', by definition, can experience pleasure or pain. Utility is derived from gaining pleasure and avoiding pain. But since all sentient beings can experience pleasure or pain, all can be regarded as capable of enjoying utility. Utility is a characteristic of sentience, not only of humanity. Singer concludes that the utilitarian principle judging actions on the basis of maximisation of utility is morally valid, but asserts that weight should be given to human and non-human utilities in this process.

You should note that the different philosophical views of the Naturalist and Humanist philosophers are all within the components of the environment (Unit 1). Hence, the need for ecological approach to environmental issues and challenges.

Furthermore, the system theory enjoys that we should not allow solution of a problem in one part of the environment to cause another problems in another part of the environment. This is the beauty of an efficient environmental health practice.

3.4 Virtue Based Theory

A virtue based theory requires that one acts for the sake of virtue or as a virtuous person would. A virtue is a good character trait – benevolence, justice, loyalty, friendliness, courage, honesty, integrity. A vice is a bad character trait.

It is an approach that does not fit as easily with the use of law. If I may remind you, professional codes of ethics specifically refer to virtue. As a professional, you are a particular kind of person because you must nurture certain virtues more carefully than a non-professional.

4.0 CONCLUSION

Do not forget that units 2 and 3 are like Siamese twins – ethical concepts and ethical theories. This was why in this unit many of the ethical concepts – morality, right, duty, good, bad etc. were repeated for emphasis and for your remembrance.

In particular, in this unit you have learnt the views and opinion of naturalists and naturalists' philosophers like the popular Kantianism theory of Emmanuel Kant (Duty based theory) and Right based theory of Peter Singer.

The two broad of humanist moral philosophers – utilitarianism and libertarianism were also stressed. One of the important inferences in this unit is the fact that each of the theories have their limitations and that is

why you should not build a rigid wall around any of them, be flexible when you are applying any of the ethical theories in environmental health issues and challenges.

5.0 SUMMARY

A summary of the important points in this unit is that:

- the term ‘theory’ was defined “as a set of ideas that is intended to explain why certain theory happen or exist”.
- the essence of ethical theories was explained.
 - i. some ethical theories like: right based theory, duty based theory, utilitarianism, libertarianism and virtue based theories were enumerated and explained for easy application.

6.0 TUTOR-MARKED ASSIGNMENT

1. Define the term ‘theory’.
2. With relevant examples, explain the following ethical theories:
 - i. Right based theory.
 - ii. Duty based theory.
 - iii. Virtue based theory.

7.0 REFERENCES/FURTHER READING

- Amadi, C. I. (2006). *Fundamentals of Health Ethics*. Port Harcourt: Stapso Printing Press.
- Abosedo, O. A. (2003). *Primary Health Care in Medical Education in Nigeria*. Lagos: University of Lagos Press.
- Bankowski, Z. & Benadelli, J. S. (1981). *Medical Ethics and Medical Education*. Geneva: Clomo.
- Ojewale, S. A. (2006). “Notes on Man and Environmental Interaction.”
- Oxford Advanced Learners’ Dictionary of Current English Language. (International Studies Edition).

MODULE 4

- Unit 1 Environmental Health Ethics
- Unit 2 Code of Practice of Environmental Health in Nigeria
- Unit 3 Professional Ethics in other Professions and Intra and Inter Professional Relationships

UNIT 1 ENVIRONMENTAL HEALTH ETHICS

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Definition of Environmental Health (Revisited)
 - 3.1.1 Who is an EHO?
 - 3.1.2 Procedures of Entry into the Profession in Nigeria
 - 3.1.3 Qualification and Certification Examination
 - 3.1.4 Registration — What and Why?
 - 3.1.5 Induction and Mandatory Continuing Education Programme (MCEP)
 - 3.1.6 Licensing
 - 3.1.7 EHORECON
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

In units 2 and 3 you learnt about ethical concepts and theories. Ethical concepts like law, negligence, duty, loyalty, honest, punishment etc. and theories posited by the Naturalists and Humanists were explained to give you a background on what Environmental Health ethics and professional code of conduct are all about. In a nutshell they border on moral values in the performance of Environmental Health Services.

Our use of technology has changed and continues to change our natural environment. While technology is very useful, it has its negative impact on the Environment. Our impact on the natural environment and the ways in which this affects humans, other animals and plants raises fundamental ethical questions. These questions which are often dealt with under the heading of Environmental ethics include:

Is human welfare all that matters morally when we evaluate, say deforestation, flooding, ozone depletion etc. can Environmental Health Officer be so drastic on defaulter or polluters or can he/she compromise his/her professional opinions or expertise?

The relevance of Environmental ethics is obvious since the 1960s such ethics have had a more or less strong foothold in most societies. They are now part of international political agenda, the Kyoto treaty is a good example dedicated Green Peace & Earth first and to which Nigeria is a signatory.

Let me also remind you of the Millennium Development Goals (MDGs) of which Environmental Health components form an integral part. When you put the role of EHOs in achieving the agenda 21 of the Earth Summit and the MDGs objectives, you will agree with me that they are challenges to EHOs and a call to duty by the whole world and by Nigeria in particular.

This is why this unit treating Environmental Health ethics will need your attention maximally. It will guide you to be righteous, virtuous and diligent in the performance of your job as a professional Environmental Health Officer.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the term Environmental Health
- describe an Environmental Health Officer
- describe the procedure of becoming an Environmental Health Officer.

3.0 MAIN CONTENT

3.1 Definition of Environmental Health (Revisited)

As you have learnt, each definition of Environmental Health was developed thoughtfully and represents the views and needs of the defining agency or organisation. Definitions of Environmental Health thus varies but it is always possible without rising to a level of formal analysis to observe some features that are common or prevalent across the definitions. There is no definition of Environmental Health that will not mention such features like:

- human health
- public health
- human or similar words.

For instance, Agency for Toxic Substance and Disease Registry U.S. defined Environmental Health as the branch of public health that protects against the effect of environmental hazards that can adversely affect health or the ecological balances essential to human health and environmental quality.

According to Virginia — Environmental Health is the study of the effects on human health at all external abiotic conditions and influences including naturally occurring phenomena and anthropogenic environmental pollution.

These two definitions of Environmental Health will be sufficient to remind you of the various definitions explained in unit 3. In Environmental Health they are requesting or demanding for your professional expertise to prevent, control or mitigate environmental hazards and visits. You cannot control the environmental if you are unethical violating your professional code of practice. An unethical Environmental Health practitioner or professional may not be qualified to be called a professional. The question is who is an Environmental Health Officer? This is explained in 3.1.1.

3.1.1 Who is an Environmental Health Officer?

An Environmental Health Officer is a person who possesses the requirements for the training of Environmental Health Officer and is therefore eligible.

He/she is admitted and attended the prescribed course of training in an approved/accredited institution. He/she passed the certification and qualification (professional) examinations conducted by relevant bodies. Having passed the examinations, he/she was registered and licensed by the EHORECON which also inducted the EHO during which he/she was sworn into a profession code of practice. He/she became fully enlisted EHO professional having attended the Mandatory Continuing Education Programme (MCEP) organised by the EHORECON.

Having satisfied the preliminaries, an EHO should appear on the mandatory approved and appropriate uniform. He must maintain the decorum, norms and standard sworn to during the induction.

With this explanation, one can identify 3 types of Environmental Health Officer.

- The first type is EHO who in spite of his/her training and certification behave like quacks and professional mercenary or mediocre.

- The second type is EHO who maintain the decorum but is not diligent; he/she is always after his/her monthly wages and salaries. He/she is professional without vocation.
- The third category is the EHO who is dignified, diligent, well composed, always neat and tidy in appropriate uniform, intelligent, intuitive, versatile, respective, responsible and ethical. EHOs with their virtues have vocationalised Environmental Health profession making it their 'calling'. They have traces of an 'environmentalist' latent or embedded in them.

With this categorisation of EHOs, you may want to slot yourself into any of the three categories. You have the freewill.

3.1.2 Procedures for Entry into Environmental Health Profession in Nigeria

You must have had an idea of the procedures in 3.1.1 where you learnt about who is an EHO. The procedures are listed in logical sequence as follows:

- (i) eligibility for the professional training
- (ii) undergoing the prescribed training in approved/accredited institution(s)
- (iii) passed the qualifying and certification examinations
- (iv) registration
- (v) licensure
- (vi) induction
- (vii) attended Mandatory Continuing Education Programme (MCEP).

3.1.3 Qualification and Certification Examinations

A candidate who entered a School of Health Technology, Hygiene or College of Health Science to read Environmental Health and become Environmental Health Officer spend the first two years to obtain a National Diploma (ND) and on successful completion, proceed to Higher National Diploma (HND) for another two years to qualify him/her as an Environmental Health Technologist.

Qualification examinations area organised and conducted by the West African Examinations Board (WAHEB) using approved curriculum jointly prepared by the WAHEB, EHORECON and the National Board of Technical Education (NBTE).

For EHOs who are university degree holders, the duration of the B.Sc. Environmental Health is 5 years except the abridged programme that runs for 3 years.

Certification examination: All the products of the various schools of hygiene or technology i.e. Environmental Health Technologists, universities, EHOs are to sit and pass certification examination prepared and conducted by EHORECON before they can be admitted into the profession.

3.1.4 Registration

Registration is the process of entering the name of an individual who has passed the qualification and certification examinations organised by WAHEB and EHORECON respectively. Registration of Environmental Health Officer is one of the statutory functions of EHORECON as enshrined in section 27 of Act II of 2002 and also section 8 (2) of the same Act.

3.1.5 Licensing and Licence

Licensing is a process of issuing an official document (licence) that shows that permission has been given to a person to do, own or use something. However, professional practice according to Abubakar (2007) simply means the permission to carry out a given task or practice a profession. It is an approval given to an individual by the professional body (EHORECON) to provide skilled services identifiable with such profession (EH). The permission has a legal attribute and must be recognised by law.

When an Environmental Health Officer is licensed he has a legal permission to practice within the dictate of the Public Health, Environmental Health Laws and Environmental Health Ethics. A licence can be withdrawn if the licensee commit misdemeanour or did something that was unethical.

3.1.6 Induction and Mandatory Continuing Education Programme (MCEP)

Having been registered, a registered EHO is inducted during which he/she swear to a code of practice of Environmental Health. He/she is to attend a Mandatory Continuing Education Programme (MCEP) organised by EHORECON.

3.1.7 Environmental Health Officers Registered Council of Nigeria (EHORECON)

The acronym – EHORECON is well known in and outside the country and it means Environmental Health Officers Registration Council of Nigeria established by Act II of 2002 (Federal Republic of Nigeria

Official Gazette No, 22, Vol. 89 of 27th Dec. 2002 published in Lagos Nigeria A175 – A194). The Act referred to it as the Council.

Membership of the council: The council is made up of a chairman and ten other members representing the six geopolitical zones, the Professional Association, the Federal Ministry of Environment, Ministry of Health, training institution for EHO and the representative of members of the public respectively (Ref. Section 2 of the Act).

Power of the Council: The council has powers to:

- register members for a prescribed fees
- determine what standards of knowledge and skills are to be attained by persons seeking to become members of environmental health profession
- to discipline or defend members as the case may be among other powers and function (Ref. Section 3 of the Act).

When compared with other councils like the Nigerian Medical and Dental Association, Nursing and Midwifery Council of Nigeria, Pharmacy Council of Nigeria etc. EHORECON is a nascent (just developing) council because of her age but of no mean status.

However, it is a curious paradox that in spite of her relatively young age, EHORECON has achieved a lot from 2004 when it was inaugurated till date. The first chairman and the foundation member including the secretary/registrar were dedicated, loyal. They performed with absolute fear of God Almighty.

- Till date more than six thousand members have been registered and licensed.
- Mandatory Continuing Education Programme (MCEP) and Thematic have been organised and are still ongoing for members throughout all the geopolitical zones of the country.
- Credible certification exams have been organised and conducted to admit new members into the profession.
- Training institutions where EHOs are being trained were/are being accredited to maintain standard.
- Some universities were encouraged to float a BSc degree in Environmental Health.
- EHORECON is collaborating with WAHEB, EHOAN, and West African Health Organisation (WAHO) to improve the profession.
- The council allowed allied professionals to participate in improving Environmental Health sanitation in Nigeria.

- Health care providers in the areas of waste management, clearing services, pest control and house to house inspection are being encouraged to take part in Environmental Health services in Nigeria.
- The council is improving in terms of logistics and infrastructures. It has a befitting National headquarters in Abuja and there are Zonal offices in Nigeria: Ibadan, Kano, Owerri and Akwa-Ibom.
- Being a uniform profession, the council is encouraging members to always be on appropriate uniform and maintain professional decorum.
- The council had had courses to defend the profession in court of law. Some members were also prosecuted for certain offences and misdemeanour.
- There are other catalogues of achievements.
- The council in the recent time has been granted powers to discipline any erring members of the profession. The Chief Justice of Nigeria (CJN), the Attorney General of the Federation and Minister of Justice had granted executive power to investigate and take appropriate actions against erring members of the profession.

Without any intention to intimidate prospective or substantive members of Environmental Health profession, it is appropriate to mention here, that the absolute maintenance of professional discipline as explained in Environmental Health ethics, the concepts, theories and Environmental Health practice code is very fundamental to and for any person who is aspiring to be or is already in the profession. Professional discipline when involved is always better.

4.0 CONCLUSION

In this unit you have learnt about the mode of entry in environmental health profession which is a follow up of previous units where concepts and theories of ethics were discussed.

The unit revisited the definitions of Environmental Health; it also explained who is an EHO, the procedures of entry into the profession in Nigeria, the differences between qualification and certification examinations. Terms like registration, induction, mandatory continuing education programme, licensing and licence were well explained. You would have learnt a lot about the profession in this unit.

5.0 SUMMARY

A summary of the salient points in this unit is that:

- Environmental health is always explained or defined according to the need or experience of an individual, corporate bodies or group.
- It is not enough to have attended training and passed the prescribed examination and wears the approved uniform of Environmental Health profession, a professional Environmental Health Officer with vocation (a calling) is expected to be virtuous.
- The procedure for entry into the profession was also explained.
- The fundamental importance of registration and licence in the profession were also stressed.

6.0 TUTOR-MARKED ASSIGNMENT

1. In your own words give a concise definition of Environmental Health.
2. How will you describe an Environmental Health Officer?
3. List four steps of entering into Environmental Health profession in Nigeria.
4. What is the full meaning of EHORECON
5. List five (5) achievements of EHORECON.

7.0 REFERENCES/FURTHER READING

“An Ensemble of Definitions of Environmental Health.” US Department of Environmental Health.

Federal Republic of Nigeria Official Gazette No 122, vol. 89. of Act. 2002, Lagos.

Mandatory Continuing Education Programme Lectures Compiled by EHORECON.

Ojewale, S. A. (2010). “Notes on Environmental Health.”

Oxford Advanced Learner’s Dictionary (International Students Edition).

UNIT 2 CODES OF PRACTICE OF ENVIRONMENTAL HEALTH IN NIGERIA

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 What are Code of Practice and Etiquette Professional Environmental Health in Nigeria?
 - 3.2 Professional Code of Practice of Environmental Health
 - 3.2.1 Obligatory Uniform
 - 3.2.2 Performance of Duty
 - 3.2.3 Diligence
 - 3.2.4 Having Moral Courage
 - 3.2.5 Giving Respect
 - 3.2.6 Maintaining Confidentiality
 - 3.2.7 Accountability
 - 3.2.8 Being a Good Citizen of the World
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

Although professionalism was formally accorded Environmental Health in Nigeria in year 2002, Environmental Health in Nigeria has been professionalised as early as 1932 when Dr. Isaac Ladipo Oluwole started the training of Environmental Health Officers i.e. Sanitary Inspectors in Lagos. Dr. Oluwole selected the best among the candidates to be trained as sanitary inspectors; he did not compromise quality for quantity, not all the selected candidates that went through the course passed the final examination conducted by the Institute of Royal Society of London. All these are perquisites for professionalism. He also maintained moral discipline among serving sanitary inspectors which was why they were able to participate actively in the eradication of yaws, plague, and small pox in those done days. Sanitary inspectors then were operating on unwritten professional ethics.

The focus of sanitary inspectors in 1950s was on obedience to the colonial masters than the natural voluntary service to ensure clean environment. The relics of colonialism were seen in blind obedience to Medical Doctors who were Medical Officers of Health (MOH) in our Health Offices and Centres in Nigeria.

Today, the story is different with the establishment of EHORECON and department of sanitation in the Local Government set up. We can now decide our own fate. This is why the introduction of codes of practice into the profession is a welcome idea.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the term code of practice and etiquette of Environmental Health
- explain the various code of practice and etiquette of Environmental Health
- list the various professional code of practice of Environmental Health in Nigeria
- describe the various professional code of practice of Environmental Health in Nigeria.

3.0 MAIN CONTENT

3.1 What is a Code of Professional Practice of Environmental Health in Nigeria

It is collection of rules, laws and standards that guide and control the behaviours of members of Environmental Health profession. An Environmental Health profession can be sanctioned for breach of code of professional practice. He/she can equally be punished for breaches which are not written rules or laws of the profession, especially if the conduct is considered as infamous, disgraceful and dishonourable by members of the profession.

Ethical codes are systematic guidelines for shaping ethical behaviour that answer the normative questions of what beliefs and values should be morally accepted. However, it must be noted that no code can provide absolute or complete rules that are free of conflict and ambiguity. Because codes are unable to provide exact directives for moral reasoning and actions in all situations, some people have stated that virtue ethics provides a better approach to ethics because the emphasis is on a person's character rather than on rules, principle and laws (Beauchamp and Childress, 2001).

Proponent of virtue ethics consider that if a professional's character is not virtuous, he/she cannot be depended on to act in good and moral ways even with a professional code as a guide.

Professional codes, however do some useful purpose in providing directions to health care professionals although, ultimately one must remember that codes do not eliminate moral dilemmas and are of no use without professionals who are motivated to act morally. Benner said while addressing a group of Nurses “each of us and each nursing organisation must breathe life into the code by taking individual and collective action” (Fowler and Benner, 2001).

Embedded in Environmental Health code of practice are Environmental Health etiquettes i.e. standard of minimally acceptable conduct within the community health profession which involves his/her duties, behaviour and actions which must be observed by all members of the profession.

You should take note that while codes of professional practice of Environmental Health are made up of rules, laws and standard guiding Environmental Health Officer in their relationships with members of the public, etiquettes are rules and laws to maintain decorum among members of the profession.

3.2 Professional Code of Practice of Environmental Health in Nigeria

These are the explicit or implied duties and loyalty, diligence, confidentiality, moral courage and just being a good citizen of the world all of which are embedded in Environmental Health ethics and codes.

These codes overlap with each other and do not serve as an exhaustive list of concepts for Environmental Health professionalism and practice. Habitually, practising Environmental Health ethics and using codes to practice as guide will help Environmental Health Officers to develop moral grounding by which to function.

3.2.1 Obligatory Uniform

Environmental Health Officers are ‘uniformed officers’ and the efforts of the council to procure and distribute uniform and accessories are quite commendable. However, the simple etiquette of wearing or be on approved and appropriate uniform has not been fully obeyed. Many of the senior members of the profession are feeling too big to appear on uniform. The junior officers are also following the footsteps of their bosses. Refusal to be on appropriate uniform when on duty is a breach of code of practice and etiquette of the profession and is punishable.

3.2.2 Performance of Duty

Item number 3 of the code of professional ethics of Environmental Health in Nigeria inter alia states: EHO shall work objectively and reliably on the basis of Environmental Health principles, legislation and regulations and maintain a high competence within the field of Environmental and Health.

Presently, performance of duty of Environmental Health in Nigeria has not been so encouraging. Yes, the number of Environmental Health Officers is inadequate but the impact of the serving officers are not felt positively in the environment. Many State Governments have introduced ancillary health workers to fill the vacuum.

3.2.3 Diligence

An Environmental Health Officers need to be thorough and careful in the performance of his/her duties. Keeping adequate records of environmental activities and graphic representation of events are clear manifestations of thoroughness.

Many Environmental Health Officers could not give adequate and correct numbers of residential houses, regulated premises, health care facilities, hospitalities like hotels, restaurants, club houses etc. in their areas of jurisdiction.

Till now, it is very difficult to know the actual or estimated volume of solid waste being generated in each states of the federation, so also the epidemiological trends of communicable and non-communicable diseases. This is a haphazard and lazy ways of carrying out Environmental Health services. It is unethical and against ethical codes and concepts of Environmental Health.

3.2.4 Having Moral Courage

Having moral courage means an Environmental Health Officers overcomes fear by confronting an issue, especially when the issue is conflict of the EHOs core values and beliefs. Moral courage is having the will to speak out and do the right thing even when constraints or forces to do otherwise are present.

Lachman (2007) emphasised that moral courage turns principles into actions. Even though physical harm could be a potential threat, other likely threats are humiliation, rejection, ridicule, unemployment and loss of social standing.

When EHOs have moral courage to do what they believe to be the right thing in a particular situation, they make personal sacrifice by possibly standing alone, but at the same time will feel a sense of peace in their decision.

If danger is a potential risk; the EHO will need to have moral courage to commit to core values, beliefs or a moral consequence. EHOs experience apprehension of fear because of the uncertainty in outcomes even when they have a high degree of certitude that they are doing the right thing.

Lachman (2007) created a clever acronym to help EHOs remember to have courage in situations and to remind EHOs of the code of ethics for EHOs. The acronym is CODE, which means: C Courage to be moral required;

- O Obligations to honour (what is the right thing to do?)
- D Danger to manage (what do I need to handle my fear?)
- E Expression and action (what action do I need to take to maintain my integrity?).

3.2.5 Giving Respect

Environmental Health Officers need to give respect to clients, families, peers and others. This is a fulfilment of a major concept in relationship, decision making processes, discussion etc. on a minute by minute basis. Rushton (2007) defined giving respect as the act of esteeming another, an act that demands we ourselves have a sense of authenticity, integrity and self knowledge. It demands that we honour the wholeness, the essence and the uniqueness of the other.

3.2.6 Maintaining Confidentiality

Maintaining confidentiality means that an EHO by legal and ethical standards keeps information private that clients or families have disclosed unless the information falls under a limit of confidentiality.

3.2.7 Accountability

The need to be responsible for your decisions and actions is very important. In some instances, one can delegate authority but that notwithstanding the onus of rendering account rests squarely on the leader. Authority should not be delegated by sentiments, emotions or arbitrariness but by empirical proofs of performances and abilities of subordinates. Delegation of authority is not a confinement of absolute

power or abdication of your own authority neither is it a pseudo delegation of power.

3.2.8 Being a Good Citizen of the World

Being a good citizen of the world as defined by Crigger, Brannigan and Baird (2006) means that professionals think reflectively about the members and others understand others point of view and promote social justice.

4.0 CONCLUSION

In this unit you have learnt about the codes of practice and etiquettes of Environmental Health Officers, professional code concepts of Environmental Health like obligatory uniform, job performance, diligence etc. They were explained to enhance their application in line with situations.

5.0 SUMMARY

A summary of the major points in this unit is that:

- Code of practice was explained, so also etiquette was explained. The thin demarcations between professional ethics, codes of practice and professional ethics were discussed.
- Also professional code concepts like:
 - wearing of official uniform
 - performing official duty
 - maintaining diligence
 - having moral courage
 - good respect
 - maintaining confidentiality
 - accountability and
 - being a good citizen of the world were described in practical application to live situations in environmental health practice, implementation, regulation and enforcement.

6.0 TUTOR-MARKED ASSIGNMENT

1. Briefly explain what is meant by code of practice.
2. Define etiquette.
3. List four (4) code of practice of environmental health.
4. Explain the acronym 'CODE'.

7.0 REFERENCES/FURTHER READING

- Beauchamp, T. L. & Childress, J. F. (2001). *Principles of Biomedical Ethics* (5th ed.). New York: Oxford University Press.
- Butts, J. B. (2010). *Ethics in Professional Nursing Practice*. London: Jones & Bartlett Publishers.
- Computer Ethics Institute (1992). "The Ten Commandments of Computer Ethics." Retrieved Nov. 5, 2012 from <http://www.brook.edu/lts/cei/overview>.
- Duffy, W. & Duffy, M. C. (1998). "Power Perceived is Power Achieved." *Association of Operating Room Nurses Journal* 68 (1), 89-92.
- Johnson, D. (2003). *Learning Right from Wrong in the Digital Age: an Ethic Guide for Parents, Teachers, Librarian and Others Who Care about Computer using People*. Washington: OH: Linworth.

UNIT 3 ETHICS IN OTHER PROFESSIONS

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Professional Ethics (Environmental Ethics) in:
 - 3.1.1 Medicine
 - 3.1.2 Nursing
 - 3.1.3 Community Health
 - 3.1.4 EHOs Ethics
 - 3.1.5 Engineering
 - 3.1.6 Inter/Intra Professional Relationship
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

An occupation is a profession because it:

- satisfies an indispensable social need
- requires trust, discretion, judgement
- applies knowledge and skill not possessed by the public
- promotes professional ideas
- has standards of admission
- employs a code of ethics, ensuring appropriate conduct and competence.

In concise form, the above listed criteria are needed before a work or an occupation can be called a profession. Detailed explanations on profession, professionalism and vocation were given in module 3; I hope you learnt a lot from the explanations. As a reminder, ethics has its roots in philosophy. Philosopher like Aristotle (384-322BCE), in character and virtue, focused on the moral character of the individual, defined proper functions of individuals – acting virtuously overtime in all aspects of life, character will prepare the individual for ethical challenges.

In this particular unit, you will learn about the ethics of some other professionals apart from environmental health professionals. Knowing something about the ethics of other professionals allows you to compare your own professional ethics with that of others and make comments or

judgements. It also allows for inter professional cooperation and relationship and promote professional harmony rather than inter-cadre conflicts.

You will notice that all occupations or works have to satisfy similar or identical criteria before they can be called a profession or a vocation, one of which is possession of professional ethics – a set of moral principles or values derivable from families, culture, religion or faith or from the legal system etc. Ethics guide behaviours and actions of professionals. Notwithstanding that you have come across some of those issues in the preceding units, you need to be more articulate and attentive in this unit so that you will be able to relate with other professionals ethically. The unit will almost consolidate all the units that have been discussed.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- list the characteristics of a profession
- enumerate reasons for professional ethics
- compare and contrast your professional ethics with other professional ethics
- utilise your profession ethics to foster harmony with other professional bodies.

3.0 MAIN CONTENT

3.1 Professional Ethics

The use of technology has changed and continues to change the natural environment. While technology — medicine, engineering, information technologies, nursing, transportation technologies and so on — can help to prosper, there is also no doubt that the production and use of technology can have a negative impact on the environment and therefore on the habitat.

The pollution of rivers, oceans and the air poses an immediate threat to the health of humans; and the build-up of greenhouse gases, depletion of the ozone layer, and deforestation may each pose a threat, not only to the health of human but also to the survival of the human species.

On the other hand, innovation within technology can also be used to remove or mitigate some of these manmade threats or to minimise some of the threats.

Our impact on the natural environment and the way in which this affects humans, other animals and plants, raises important ethical questions. These questions, which are often dealt with under the heading of environmental ethics, include:

- Is human welfare all that matters morally when we evaluate, say deforestation or the elimination of species?
- Should we aim to decrease the number of humans on our planet in order to make other species flourish (Remember Naturalists and Humanists ethical values)?
- What ought to be done about global warming?

Hence, the concerted effort of all professional bodies is relevant and fundamental to ensure sanity and peace on the earth planet. As mentioned earlier you will learn about the ethics of some professionals in which case for better understanding or simplicity, you may consider this unit under the heading – environmental ethics – a multidisciplinary activity that draws expertise in environmental health, medicine, physics, biology, economics, nursing, law, sociology, psychology, philosophy among others.

Within the context of this unit, what you will read in the professional ethics that are sampled, are excerpts. Read them critically and see if a particular professional ethics have respect for human, animals and plants and indeed the environment. You may also want to explore areas of cooperation and interrelationships with other professions to ensure peace and harmony.

3.1.1 Ethics in Medicine

Hippocrates – the father of medicine actually belong to the group of Humanist philosophers. In Humanist ethical theory, it is only humans that matter in the environment and consideration was not given to other sentient beings i.e. things that can feel pain.

Ethics in medicine do not preclude the use of live objects (bioassay) in research works for human beings to survive, cloning, test-tube baby, induced abortion, anaesthesia, and euthanasia are being practised in medicine. Hippocratic Oath makes interesting reading. Its first premise is that the doctor owes loyalty to his/her teacher and his/her brethren. Obligations to exercise skill for the benefits of patients' health come second. There is appreciable confidentiality, dignity and self-esteem in medicine.

The need has arisen for medical ethnics to give more attention to the protection and conservation of environmental resources and aesthetics in

the environment. Little or no attention is being paid to sanitary treatment and disposal of biomedical or healthcare wastes (HCWs) by modern doctors in the spirit of sustainable development. Clean environment ensures good health because diseases are prevented.

3.1.2 Ethics in Nursing

During the latter half of the 19th century, Florence Nightingale was instrumental in transforming nursing into a recognised profession in Britain. Following the founding of the Nightingale School of Nursing in England, nursing schools in the United States were established at Bellevue Hospital (New York City), New Haven Hospital (New Haven, Connecticut), and Massachusetts General Hospital (Boston). The benefits of having trained nurses in hospitals became apparent as increased efficacy of treatment and hygiene improved patient recovery (Haglund and Dowling, 1993). As a result of these advances, hospitals increasingly came to be regarded as places of healing and found acceptance with the middle and upper classes.

The beginning of professional nursing can be traced back to 19th century England to the school that was founded by Florence Nightingale, where professional-shaping ethical precepts and values were communicated (Kuhse and Singer, 2001). For the first 30 – 40 years in Nightingales School, the prospective nurses were trained by male physicians because there were not enough educated nurses to teach nursing. Because of the strong medical influence, early nursing educators focused on technical training rather than on the art and science of nursing as Nightingale would have preferred.

By the end of the 19th century, modern nursing had been established and ethics in nursing was seriously being discussed. First developed in 1893 and written under the Chairmanship of Detroit Nursing School Principal, Lystra Gretter, helped establish nursing as an art and a science (as cited in Dossen, 2000).

The International Council of Nurses (ICN), which has been a pioneer in developing a code of nursing ethics was established in 1899. By 1900, the first book on nursing ethics – “Nursing Ethics for hospital and private use” had been written by the American Nursing leader Isabel Hampton Robb.

It is interesting to note that in Isabel Hampton Robb’s nursing ethics book of 1900, the titles of the chapters were descriptive of times such as chapter 4: the probationer; chapter 7: uniform; chapter 8, night duty and the kind of the patient; chapter 12.

Until the 1960s, the focus in the nursing codes was on the physician, which is not surprising, based on the fact that over the years most members have been women and most doctors have been men. The focus on nurses' obedience to physician remained on the forefront of nursing responsibilities into the 1960s and this assumption was still reflected in the ICN Code of Ethics for Nurses as late as 1965. By 1973, however, the focus of the ICN code reflected a shift to nursing responsibility from physician to the patient, where it is supposed to remain to this day.

When one compares the inception of training of Sanitary Inspectors in Nigeria which was started by Dr. Isaac Ladipo Oluwole (a medical doctor) in Lagos in 1933 and the training of Nurses in Florence Nightingale School in the early 19th century also by medical doctors. Medical doctors had an advantage over the training of Nurses and EHOs. It was not unexpected that Nurses Codes the Ethics accorded greater respect and obedience to medical doctors rather to the patient but EHOs code of ethics though not disrespectful to medical doctors but never made Sanitary Inspector (EHOs) subservient to medical doctors.

The incessant conflicts between medical doctors and other health professionals in Nigeria are not unconnected with medical doctors seeing themselves as leaders in the health industry whereas health is a polyvalent industry where specialisations and indeed professionalisation and professionalism cannot but be upheld. Dr. Isaac Ladipo Oluwole – the father of Public Health in Nigeria was very liberal. He gave Sanitary Inspectors having trained them properly, free hand to practise and did not force obedience or respect from Sanitary Inspectors to himself but encouraged mutual understanding and respect for each other.

EHOs Codes of Ethics encourages discretion, initiative that elicits efficiency, effectiveness and excellence from a professional.

3.1.3 Ethics of Community Health

Community Health practice in Nigeria is associated with the adoption of the Basic Health Service Scheme later called Primary Health Care (PHC). Over the years the primary health care system has been adjudged to be performing dismally. The attitude of the personnel and the quality of the service they deliver had been largely said to be responsible for the inefficiency and ineffectiveness of the system.

The Community Health practitioner being one of the cadres responsible for the implementation of the PHC needs to possess virtues that are embedded in its ethics in order to deliver quality services in PHC system. Community Health practice postulates “the occupied and balanced integration of curative, preventive and promotional health

services, including rehabilitative services. It has brought a shift from diagnosis and treatment of individual's illness to diagnosis and treatment of everybody illnesses in the community". (Paul and Park, 1985). The practice of community health started in Nigeria in 1978 with Alma-Ata declaration of PHC and the need to breed a cadre of health professionals to man PHC services.

The introduction of community health officers (CHOs), Community Health Superintendent (CHS), Community Health Assistant (CHA) and Community Health Aides in community health services in Nigeria was the brain child of Professor Olukoye Ransom-Kuti – the then Minister of Health during the military regime under President Ibrahim Babangida.

Going by the definition of Community Health Services by Paul and Park (1985), community health embraces preventive, curative and promotive health services. This automatically made PHC services a polyvalent health services in which, no health cadres can claim or arrogate ownership. This was why at the initial stage of PHC services in Nigeria, nurses, midwives, EHOs were trained as CHOs.

Later the code of practice of CHO excluded professionals like nurses, midwives and EHOs from those that can be trained as CHOs. This was the active support of the then Minister of Health Professor Olukoye Ransom-Kuti – a medical doctor.

Again, one could see the lingering traces of influence of medical doctors on other health cadres. They are not ready to compromise for any health cadres that are not obedient. Remember that the training of nurses and EHOs was manned by medical doctors, but the two cadres are independent professionals. The code of Ethics of Community Health does not concede respect to other health cadres except medical doctors. Inter-cadre wrangling, conflicts and infighting were among the immediate causes of the failure of PHC services in Nigeria. Any community Health Practitioner is supposed to render polyvalent health service (promotive, preventive, curative and rehabilitative). In the health industry, there is no room for general duty soldier, you have to specialise. It is practically impossible for a single healthy cadre to render efficient, effective and excellent, preventive, curative, promotive and rehabilitative healthy services under whatever form or disguise. According to Rules 8 of the Code of professional conduct, Ethics and Etiquette for Community Health Practitioners in Nigeria, the general work ethics of a Community Health Practitioner include among others to:

- to be accurate in all activities
- to practise thoroughness

- to practise dependability
- to be flexible
- to have good judgement
- to be honest
- to possess the attitude of efficiency
- to be a member of the team (a team play).

The present relationship between Community Health Practitioners in Nigeria or other paramedical cadres is not cordial and the Community Health Practitioners may not likely accomplish the goals of their ethics and etiquette.

3.1.4 Environmental Health Officers' Ethics

In the preceding units, you have learnt that environment simply means our surrounding but it encompasses plants, animals, land, water, air, and our culture.

When you talk of environmental health, it is that act or the ability to manipulate, control or direct the components of the environment in such a way that humans will feel comfortable and disease free.

As in other health cadres, environmental health practitioners need rules, regulations, to guide their conducts, hence, Environmental Ethics Code of practice and Etiquette.

Having reviewed the ethics of the medical doctors, nurses and community health practitioners like the Community Health Officers, Community Health Supervisors, Community Health Assistant and Community Health Aides, it is appropriate to consider the Code of Ethics of environmental health professionals too.

Environmental health professionals include: Environmental Health Officers, Environmental Health Technologists, Environmental Health Technicians and Environmental Health Assistant. Environmental health is predominantly a preventive health service but then, it is so wide and vast that no single health cadres can do it all alone. Hence a team or ecological approach to environmental issues and challenges.

Code of professional ethics of environmental health practitioners in Nigeria (section 27) are as listed below:

- i. Shall uphold the laws of Nigeria perform the duties of citizenship, work with other citizens to uplift the human resource base of Environmental Health profession and cooperate with

- other professionals in promoting efforts towards health and development needs of the entire citizenry.
- ii. Accept that my fundamental responsibility as an Environmental Health Officer is to work to improve and preserve the environment, alleviate poverty and to promote public health out of an ecological, humanitarian and democratic viewpoint.
 - iii. Shall work objectively and reliably on the basis of environmental health principles, legislation and regulations and maintain a high competence within the field of environment and health protection, applying a holistic view within my field of competence and work.
 - iv. Shall not do anything, which shall or can or may be misconstrued to bring my integrity or the profession to disrepute, and maintain my integrity towards others and their legitimate interests.
 - v. Shall not deliberately, falsely or maliciously injure the professional reputation of another member of the profession for whatever reason.
 - vi. Shall provide services based on human need, integrity of the environment with respect for human dignity, unrestricted by considerations of nationality, race, creed, religion, colour, or status.
 - vii. Shall not use my professional knowledge and skill in any enterprise detrimental in any way to the promotion of environmental health in particular and public health in general.
 - viii. Shall respect and hold in confidence all information of a confidential nature obtained in the course of performance of my professional duties unless required by law or a superior officer to divulge same.
 - ix. Shall participate in all environmental health professional organisations as demanded by the Council.
 - x. Shall participate responsibly in defining and upholding minimum standards of professional practice and continuing professional education.
 - xi. Shall maintain professional competence and demonstrate regard for the competence of other members of the profession, and shall not lay claim to competence I do not possess.
 - xii. Shall assume responsibility for my professional actions and judgement, both in dependent and independent functions, and uphold the laws, which affect the practice of environmental health profession always.
 - xiii. Shall through the professional organisation, participate effectively and responsibly in the establishment of terms and conditions of employment for the profession.
 - xiv. Shall participate in the study of, and act on all matters of legislation affecting environmental health profession and the services of the profession to the public.

- xv. Shall adhere to the highest standards of personal ethics, which reflect creditably upon my personality and accord due regard to my profession.
- xvi. Shall adhere to prescribed dress code while on duty and shall maintain the dignity of the profession in every manner of dressing.
- xvii. Shall protect the general public from harm by not delegating to a person less qualified any duty or services, which requires the professional competence of an Environmental Health Officer.
- xviii. Shall refuse to participate in unethical procedures and processes and shall assume the responsibility to expose incompetence or unethical conduct from others to the appropriate authority.
- xix. Shall serve my client faithfully and avoid any situation that may give rise to conflict of interest between me and my client and shall make full disclosure where such conflict occurs.
- xx. Shall protect the legitimate interest of my employer, perform my job honestly and maintain professional standard; and shall endeavour to treat my employees with respect, offer fair remuneration and provide safe working environment for my workers.
- xxi. Shall support my colleagues in their professional development and provide opportunity for the development of new entrants to the profession, and regard students under my tutelage as public trust for the promotion of learning and professional development.
- xxii. Shall keep myself abreast with development in the profession, willing to share ideas and information with other members and where necessary, with the general public, keep accurate records, maintain integrity in all conduct and publication and give due regard and credit to the contributions of others.
- xxiii. Shall consider and anticipate the environmental consequences of my work and act in a manner to avoid pollution and to protect the environment.

Please feel free to go through the ethics for your critical appraisal. Notwithstanding, I shall make brief comments on some of the listed code of ethics of environmental health in Nigeria.

Code of Ethic No. 1 reads:

“Shall uphold the law of Nigeria perform the duties of citizenship, work with other citizen to uplift human resource base of environmental profession and cooperate with other professionals in promoting efforts towards health and development needs of the entire citizenry”.

The placement of this code as no 1 on the list is strategic as it has infused in the environmental health practitioner just entering into the

profession the spirit of working with the people and planning with them or not for them.

It makes environmental health practice accessible, acceptable, affordable and available to the citizenry.

Let us consider item No. 3 of the ethics:

Shall work objectively or reliably on the basis of environmental health principles, legislations and regulations and maintain a high competence within the field of environmental health and health protection, applying holistic (wholesale) view within many fields of competence and work.

Just like a Community Health practitioner cannot at the same time be a preventive, curative, rehabilitative and promotive officer, so also environmental health practitioners cannot tackle all the environmental health problems and challenges all alone. Environmental health matters are polyvalent. This particular No. 3 item of environmental health ethics recognises this fact, when it prescribed for new entrants and the existing practitioners:

- to work objectively and reliably
- on the basis of environmental health principles, legislations and regulations
- maintain a high competence within the field of environmental health (and not outside the field of environmental health)
- apply a holistic view within the field (field of competence and work). The field of competence means my area of specialisation – be it water, waste management, housing, pest control or any of the environmental health components but not in all component of environmental health.

This item recognises the importance of specialisation and not generalisation.

Item No. 11 is an extension of item No. 3: it says shall maintain professional competence and demonstrate regard for the competence of the profession and shall not lay claim to competence I do not possess... shall assume responsibility for professional action taken ... item (No. 12). Quite frankly, the ethics of environmental health professional is almost all encompassing but it has obviously failed to address the importance issue of spirit of team work as entrenched in the ethics of all other health cadres. This may encourage working in isolation of other health cadres even though it is said that environmental health practitioner should not lay “claim to the competence they do not possess”.

Presently, many of the practising EHOs have no respect for environmental ethics, code of conduct and etiquette. They violate them with flagrant impunity notwithstanding the oath taken. Think of the issue of uniform item (No.16). There is no sanity in the wearing of uniform when you compare environmental health cadres with nurses, community health practitioners, the police, and the armed forces. There are clear manifestations of misconducts by many environmental health practitioners. There is the need to categorise the EHOs into:

- (a) environmental health ethics
- (b) environmental health code of conducts
- (c) environmental health etiquettes.

The items listed a – c above are not the same. As they are being lumped together now, they are not distinct and cannot sensitise nor do they stimulate. Environmental health practitioners are not taking them serious and that is not good enough. The profession cannot grow when the practitioners engage in unethical practices.

3.1.5 Code of Ethics for Engineers

Engineering is an important and learned profession. Members of this profession are expected to exhibit the highest standard of honesty and integrity. Engineering has a direct and vital impact on the quality of life for all people. Accordingly, the services provided by engineers require honesty, impartiality, fairness and equity and must be dedicated to the protection of the public health, environmental health, safety and welfare. Nowadays and even before, there is no aspect of the components of environmental health services that is not affected in one way or the other by one form of engineering professions or the other is it civil, mechanical and electrical, electronics and computer engineering. They may come under the umbrella of sanitary engineering in waste management, water quality management, housing, pest management, control of communicable diseases, research etc. Hence, engineering profession has direct bearing on environmental health profession and vice versa; thus, the need to examine engineering code of ethics.

The highlight of code of ethics for engineers is as follows: engineers in the fulfilment of their professional duties shall:

- hold paramount the safety, health and welfare of the public and the environment
- perform services only in the areas of their competence
- issue public statements in an objective and truthful manner
- act for each employer or client as faithful agents or trustee
- avoid deceptive acts

- conduct themselves honourably, responsibly, ethically and lawfully so as to enhance the honour, reputation and usefulness of the profession.

Source: National Society of Professional Engineers.

When one considers the above listed code of ethics of engineering profession, they are embracing. For instance, “to hold paramount the safety health and welfare of the public and the environment” cut across many other professions especially in public health be it medicine, nursing, community health, environmental health etc. hence, the need for a concerted efforts between public health workers and engineers. Engineers are required to perform “services only in areas of their competence”. This agrees with the ethics, code of conduct and or etiquettes of other public health workers including Environmental Health Officers.

3.1.6 Intra and Inter Professional Relationship

Winslow’s definition of public health says that – public health is the science and art of preventing diseases, prolonging life and promoting physical health and efficiency, through organised community efforts for the:

- sanitation of the environment
- control of community infections
- education of the individuals in the principles of personal hygiene;
- organisation of medical and nursing service for the early detection and preventive treatment of disease
- development of the social machinery which will ensure every individual in the community a standard of living adequate for the maintenance of health (Winslow, 1951).

From the definitions of public health, it is very clear that all health cadres are embedded in public health be it medicine, nursing, environmental health, community health, pharmacy, social workers and what have you.

Hence, the need for intra and inter relationships could not be overemphasised or compromised if the health of the members of the public, is to be enhanced. The goal of public health which is the sustainable development and maintenance of health of the public cannot be achieved if the ethics, code of practice and etiquettes of different health cadres do not respect members within (Intra) the profession and members outside the profession (Inter).

There is no need for inter wrangling, petty jealousy, professional conflicts among health workers. The spirit of teamwork should prevail, every cadre doing its bit within the limit of its “professional competence” as stressed in all the code of ethics of public health professional.

Public health professionals should also cooperate with professionals outside the health industry. They need other professionals to complement or supplement their professional services.

4.0 CONCLUSION

In this unit, you have learnt about the ethics of different health professionals. You were able to compare and contrast the ethics. You would have realised that there is the need to update, modify your own professional ethics to keep them abreast. Now, you will take the issue of intra and inter professional relationships more seriously to enhance better performance of your services.

5.0 SUMMARY

A summary of the major points in this unit is that the:

- definitions and concepts of profession and vocation were repeated to refresh your memory
- ethics, code of practice and etiquettes of
 - (a) medicine,
 - (b) nursing,
 - (c) community health,
 - (d) environmental health,
 - (e) engineering were critically examined for a better analysis and comparison
- need for intra and inter professional relationships were emphasised and encouraged.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain the word profession in your words.
2. Enumerate five (5) reasons why you need to know and respect the ethics of other health professionals.
3. Explain the meaning of the phrase “to act within my professional competence”.

7.0 REFERENCES/FURTHER READING

- Brody, J. (1988). "Virtue, Ethics, Caring and Nursing; Scholarly Inquiry for Nursing Practice." *International Journal*, 2 (2), 87-89.
- Bruce, J. *et al.* (2010). *Ethics and Public Health: Model Curriculum*. London: London Public Press.
- Grant, A. (1992). *Exploring an Ethical Dilemma in Nursing*. Ontario: Pufot Press.
- International Council of Nurses – Nursing Networks, Geneva: Switzerland. <http://www.ich.ch/networks.htm>.
- Code of Medical Ethics in Nigeria*. (Medical & Dental Council of Nigeria).
- Lucas, A. O. & Gilles, H. M. (2005). *Short Textbook of Public Health Medicine for the Tropics*. London: Bookpower.
- Paul, L. (1990). *Causes of Death in the Workplace*. London: Quorum.
- Peter, D. (1991). *Environmental Ethics*. Pacific Grove: Bedwood Press.