



**NATIONAL OPEN UNIVERSITY OF  
NIGERIA**

**SCHOOL OF ARTS AND SOCIAL  
SCIENCES**

**COURSE CODE:-PCR 352**

**COURSE TITLE:-SUSTAINABLE  
ENVIRONMENTAL DEVELOPMENT AND  
PEACE.**



**PCR 352**  
**SUSTAINABLE ENVIRONMENTAL DEVELOPMENT AND PEACE**

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## CONTENTS

### PAGE

Introduction.....	1	
What You Will Learn in this Course .....		1
Course Aims.....	2	
Course Objectives.....	2	
Working through this Course.....		2
Course Materials.....	2	
Study Units.....	3	
Textbooks and References.....		4
Assignment File .....	4	
Assessment .....	4	
Tutor-Marked Assignment.....		5
Final Examination and Grading.....	5	
Course Marking Scheme .....	6	
How to Get the Most from this Course .....	6	
Facilitators/Tutors and Tutorials .....	8	
Summary.....	8	

### Introduction

PCR 310 Sustainable Environmental Development and Peace is a one-semester course. It will be available for you to take towards the core module of the Bachelor of Arts in Peace Studies and Conflict Resolution. This course is suitable for under graduate students seeking to understand and obtain the required skills necessary for sustainable environmental analysis and peace studies.

This course consists of 25 units, it examines in detail certain key terms and instruments necessary for environmental awareness. Definition/Meaning of concepts such as Environment, Development, Conflict, Peace and Sustainable, Environmental Constraints such as Ozone Depletion, Environmental Pollution, Types of Pollution, Causes/Sources of Pollution, Impact of Pollution on biodiversity, Fresh Water Management, Environmental Conservation and Protection, Rural and Urban Sustainability, Health Promotion; and Environmental factors as causes of Conflict, Violence and War. Human Development within a framework of Ecological Economics, Development, Under-development and Inequality, (Inter-) dependence and (In-) justice in the distribution, use and control of natural and human resource, Poverty Alleviation and Gender Equality, Sustainable Production and Consumption, Use and Control of Natural and Human Resources. It presents an overview of theoretical paradigms in research, the meaning and parts of a theory, the various perspectives in research and why we need research, the research

methods – both qualitative and quantitative in data collection analysis, and the use of the case study method, etc.

There are compulsory prerequisites for this course. The course guide tells you briefly what the course is all about, what you are expected to know in each unit, what course materials you need to use and how you can work your way through these materials. It also emphasizes the necessity for tutor-marked assignments. There are also periodic tutorial classes that are linked to this course.

## **What You Will Learn in this Course**

The overall objective of **PCR 352 Sustainable Environmental Development and Peace** is to acquaint you with the array of organizing themes that could be used in understanding sustainable development with peace and conflict resolution at the nerve centre. The ultimate objective or goal is to develop and enhance your capacity to contribute to ecological balance within the communities.

Your understanding of this course will serve to expose you to a very important part of peace studies that have to do with the very important perspective of consciously building peace in societies in order to prevent wars.

## **Course Aims**

The basic aim of this course is to expose you to the various organizing themes in peace and the environment. Get you to appreciate the various efforts and methods of seeking conflict resolution, and the necessity of good background study of a peaceful ecology to enable us have sustainable development

## **Course Objectives**

Several objectives can be delineated from this course. In addition, each unit has specific objectives. The unit objectives can be found at the beginning of a unit. You may want to refer to them during your study of the particular unit to check on the progress you are making. You should always look at the unit objectives after completing a unit. In this way, you can be sure that you have covered what is required of you in that unit.

## **Working through this Course**

To complete this course, you are advised to read the study units, read recommended books and other materials provided by NOUN. Each unit

contains Tutor Marked Assignment (TMA), which you are required to submit for assessment and for your exercise. At the end of the course, there is a final examination. The course should take you about twenty-five weeks to complete. You need to allocate your time in order to complete the course successfully and on time.

## **Course Materials**

The major components of the course are:

- 1.0 Course Guide
- 2.0 Study Units
- 3.0 Textbooks and References
- 4.0 Assignment File

## **Study Units**

There are twenty-five study units and a study Guide in this course, and they are as follows:

### **Module 1**

- |        |   |
|--------|---|
| Unit 1 | Sustainable Environmental Development           |
| Unit 2 | Principles of Sustainable Living                |
| Unit 3 | Environmental Ethics for Development            |
| Unit 4 | Quality of Human Life and Metaphase Development |
| Unit 5 | Carrying Capacity and the Environment           |

### **Module 2**

- |        |  |
|--------|--|
| Unit 1 | Preservation, Conservation and Protection      |
| Unit 2 | Attitudinal Imperatives for Sustainable Living |
| Unit 3 | Environment Education for Peace                |
| Unit 4 | Coping with Environmental Change               |
| Unit 5 | Biodiversity and Ecological Balance            |

### **Module 3**

- |        |   |
|--------|---|
| Unit 1 | The Tripartite Environment                    |
| Unit 2 | Environmental Pollution and Pollution Control |
| Unit 3 | Waste Management for Peace                    |

- Unit 4 Coastal, (Fresh) Water Management and Sanitation  
 Unit 5 Forests, Farmlands and Human Settlements

#### **Module 4**

- Unit 1 Rural/Urban Sustainability for Peace  
 Unit 2 Environmental Causes of Conflict and their Resolution  
 Unit 3 Ecological Economics and the Millennium Development Goals  
 Unit 4 Development and Underdevelopment; The Human Security Issues  
 Unit 5 Inter-dependence and Distributive (In-Justice and Peace)

#### **Module 5**

- Unit 1 Conservation Strategies for Peace  
 Unit 2 Planning for Sustainable Production and Consumption Habits  
 Unit 3 Capacity Building for Environmental Development and Peace  
 Unit 4 Environmental Planning and Poverty Reduction Strategies  
 Unit 5 Sustainable Entrepreneurship and Gender Equality

Module 1 gives a conceptual foundation and overview of sustainable environmental development and peace. Module 2 deals with the contextual dimension of the living earth; while module 3 examines the human attitudinal and behavioral ingredients of ecological change and measures for peace. Module 4 highlights the key economic indices of ecological imbalance. Module 5 describes the coping mechanisms in the light of environmental change. Each study unit consists of one week's work.

#### **Textbooks and References**

You will find a list of recommended textbooks at the end of each unit. Study them. Make reference to other NOUN publications in your area of study and the Internet and libraries close to you.

#### **Assignment File**

There are two aspects to the assessment of this course. In this file, you will find all the details of the work you must submit to your course facilitator for marking: The marks you obtain for these assignments will count towards the final mark you obtain for this course. Further

information on assignment will be found in the Assignment File itself, and later in this one assignment. These assignments are basically meant to assist you to understand the course.

### **Assessment**

There are two aspects to the assessment of this course. First, are the tutor-marked assignments; second, is a written examination. In tackling these assignments, you are expected to apply the information, knowledge and experience acquired during the course. The assignments must be submitted to your course facilitator for formal assessment in accordance with the deadline stated in the Assignment File. The work you submit to your course facilitator for assessment will account for 30 percent of your total course mark.

At the end of the course, you will need to sit for a final examination of three hour duration. This examination will account for the other 70 percent of your total course marks.

### **Tutor-Marked Assignment**

There are 25 sets of tutor-marked assignments in this course. You only need to submit all the assignments. The best four (i.e the highest four of the 25 marks) will be counted. Each assignment counts for 20 marks but on the average when the five assignments are put together, then each assignment will count 10% towards your total course mark. This implies that the total marks for the best four (4) assignments, which would have been 100 marks, will now be 30% of your total course mark.

The Assignment for the units in this course is contained in the Assignment File. You will be able to complete your assignments from the information and materials contained in your set books, reading and study units. However, it is always desirable at this level of your education to research more widely, and demonstrate that you have a very broad and in-depth knowledge of the subject matter.

When each assignment is completed, send it together with a TMA (tutor-marked assignment) form to your Course Facilitator. Ensure that each assignment reaches your course facilitator on or before the deadline given in the Assignment File. If, for any reason you cannot complete your work on time, contact your course facilitator before the assignment is due to discuss the possibility of an extension. Extensions will not be granted after the due date unless there are exceptional circumstances warranting such.



## Final Examination and Grading

The final examination for **Sustainable Environmental Development and Peace** will be of three hour duration and have a value of 70% of the total course grade. The examination will consist of questions, which reflect the practice exercise, and tutor-marked assignments you have previously encountered. All areas of the course will be assessed. Use the time between the completion of the last unit and sitting for the examination, to revise the entire course. You may find it useful to review your tutor-marked assignments and comment on them before the examination. The final examination covers information from all aspects of the course.

## Course Marking Scheme

**Table 1:** Course Marking Scheme

<b>ASSESSMENT</b>	<b>MARKS</b>
Assignments	Best four marks of the Assignments @10% each (on the average) = 30% of course marks
Final examination	70% of overall course marks
<b>Total</b>	<b>100% of course marks</b>

## How to Get the Most from this Course

In distance learning, the study units replace the university lecturer. This is one of the great advantages of distance learning; you can read and work through specially designed study materials at your own pace, and at any time and place that suits you best. Think of it as reading the lecture instead of listening to the lecturer. In the same way a lecturer might give you some reading to do, the study units tell you when to read, and which are your text materials or set books. You are provided exercises to do at appropriate points, just as a lecturer might give you an in-class exercise.

Each of the study units follows a common format. The first item is an introduction to the subject matter of the unit, and how a particular unit is integrated with the other units and the course as a whole. Next to this is a set of learning objectives. These objectives, lets you know what you

should be able to do by the time you have completed the units. These learning objectives are meant to guide your study. The moment a unit is finished, you must go back and check whether you have achieved the set objectives. If this is made a habit, then you will significantly improve your chances of passing the course. The main body of the unit guides you through the required reading from other sources. This will usually be either from your set books or from a reading section.

The following is a practical strategy for working through the course. If you run into any trouble, telephone your tutorial facilitator. Remember that your tutorial facilitator's job is to help you. When you need assistance, do not hesitate to call and ask your tutorial facilitator to provide it.

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

- Reading this Course Guide thoroughly is your first assignment.
- Organize a Study Schedule. Design a 'Course Overview' to guide you and note the time you are expected to spend on each unit and how the assignments relate to the units. You need to gather all the information into one place, such as your diary or a wall calendar. Whatever method you choose to use, you should decide on and write down your own dates and schedule of work for each unit.
- Once you have created your own study schedule, do everything to stay faithful 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 tutorial facilitator know before it is too late for help.
- Turn to Unit 1, and read the introduction and the objectives for the unit.
- Assemble the study materials. You will need your set books and the unit you are studying at any point in time.
- Work through the unit. As you work through it, you will know what sources to consult for further information.
- Review the objectives for each study unit to confirm that you have achieved them. If you are unsure about any objectives or review study materials, consult your tutorial facilitator.
- When you are confident that you have achieved a unit objective, you can then start on the next unit. Keep to your schedule. When the Assignment is returned, pay particular attention to your tutorial

facilitator's comment, both on the tutor marked as well as written assignment. Consult your tutorial facilitator if you have any problems.

- 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.
- When you are confident that you have achieved a unit's objectives, you can start on the next unit. Proceed unit by unit through the course and try to space your study so that you can keep yourself on schedule.
- When you have submitted an assignment to your tutorial facilitator 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 tutorial facilitator comments, both on the tutor-marked assignments form and also the written comments on the ordinary assignments.
- After completing the last unit, review the course and prepare yourself for the final examination. Check that you have achieved the unit objectives (listed at the beginning of each unit) and the course objectives (listed in the Course Guide).

### **Facilitators/Tutors and Tutorials**

There are 12 hours of tutorials provided in support of this course. You will be notified of the dates, times and location of these tutorials, together with the name and phone number of your tutorial facilitator, as soon as you are allocated a tutorial group.

Your tutorial facilitator will mark and comment on your assignments, keep a close watch on your progress and on any difficulties you might encounter and provide assistance to you during the course.

You must mail your tutor-marked assignments to your tutorial facilitator well before the due date (at least two working days are required). They will be marked by your tutorial facilitator and returned to you as soon as possible.

Do not hesitate to contact your tutorial facilitator by telephone e-mail, or discussion board. The following might be circumstances in which you will find help necessary. Contact your tutorial facilitator if:

- You do not understand any part of the study units or the assigned readings.
- You have difficulties within the exercises.

- You have a question or problem with an assignment, with your tutor's comments on an assignment or with the grading of an assignment.

You should try your best to attend the tutorials. This is the only chance to have face to face contact with your tutorial facilitator and ask questions which are answered instantly. You can raise any problem encountered in the course of your study. To gain the maximum benefits from course tutorials, prepare a question list before attending them. You will learn quite a lot from participating in the discussions.

### **Summary**

This course guide has introduced you to every aspect of your course on Sustainable Environmental Development and Peace. We wish you every success in your studies.

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<b>CONTENTS</b>	<b>PAGE</b>
<b>Module 1</b> .....	<b>1</b>
Unit 1 Sustainable Environmental Development .....	1
Unit 2 Principles of Sustainable Living .....	7
Unit 3 Environmental Ethics for Development .....	14
Unit 4 Quality of Human Life and Metaphase Development	21
Unit 5 Carrying Capacity and the Environment .....	28
<b>Module 2</b> .....	<b>32</b>
Unit 1 Preservation, Conservation and Protection .....	32
Unit 2 Attitudinal Imperatives for Sustainable Living .....	37
Unit 3 Environment Education for Peace .....	42
Unit 4 Coping with Environmental Change .....	48
Unit 5 Biodiversity and Ecological Balance .....	53
<b>Module 3</b> .....	<b>57</b>
Unit 1 The Tripartite Environment .....	57
Unit 2 Environmental Pollution and Pollution Control...	61
Unit 3 Waste Management for Peace.....	66
Unit 4 Coastal, (Fresh) Water Management and Sanitation	70
Unit 5 Forests, Farmlands and Human Settlements.....	75
<b>Module 4</b> .....	<b>80</b>
Unit 1 Rural/Urban Sustainability for Peace.....	80
Unit 2 Environmental Causes of Conflict and Their Resolution .....	85
Unit 3 Ecological Economics and the Millennium Development Goals.....	90
Unit 4 Development and Underdevelopment; The Human Security Issues .....	94
Unit 5 Inter-dependence and Distributive (In-Justice and Peace) .....	98
<b>Module 5</b> .....	<b>103</b>
Unit 1 Conservation Strategies for Peace .....	103
Unit 2 Planning for Sustainable Production and Consumption Habits.....	107
Unit 3 Capacity Building for Environmental Development and Peace .....	111
Unit 4 Environmental Planning and Poverty Reduction Strategies .....	116
Unit 5 Sustainable Entrepreneurship and Gender Equality	120





## **MODULE 1**

Unit 1	Sustainable Environmental Development
Unit 2	Principles of Sustainable Living
Unit 3	Environmental Ethics for Development
Unit 4	Quality of Human Life and Metaphase Development
Unit 5	Carrying Capacity and the Environment

### **UNIT 1 SUSTAINABLE ENVIRONMENTAL DEVELOPMENT**

#### **CONTENT**

1.0	Introduction
1.0	Objectives
3.0	Main Content
3.1	The Notion of Sustainable Development for Environmental Balance
3.2	Sustainability Processes in the Environment
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Readings

#### **1.0 INTRODUCTION**

A curious study shows that there are a lot of notions about development. Notions about development cluster and overlap around the key attempt to describe and define human effort to gainfully control the environment. Human capabilities, exertion of creative knowledge and application of skills to attain greater freedom and enjoy higher level of well being count in the notions of development. The attempt to control the environment is/can be the former development styles, processes and their product are now inappropriate and incapable of coping with long-term human demands. Essentially therefore, sustainable development has become the enigma our common future.

#### **2.0 OBJECTIVES**

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

- explain the process of environmental decline
- differentiate between sustained development and sustainable development
- discuss the main notion of sustainable development for environmental peace.

### 3.0 MAIN CONTENT

#### 3.1 Development and the Environment

There are many problems, challenges and opportunities associated with the living environment today. Our only one earth and its treasure base, is experiencing a siege from all aspects of human endeavors. Misuse, abuse and degradation of the environment have become so easily spotted disruptions all day, everyday everywhere. Cultures, economic activities and livelihood practices are changing and changing fast as a consequence of the realization that when people have power to extract resources around them for a more fulfilling life.

Such power is sometimes unleashed with a sense of desperation to solve the increasing and mounting problems of survival and progressive improvement. This leads to environmental declining. Thus, the desperate quest for improvement is no longer a future threat but a real threat for the future. To face up to the future with optimism, depends to some reasonable extent on how we are able to set the stage for tackling problems of today. This means an intelligent educated balance must be struck between integrated socio-economic development on one hand and lifelong preservation of human life and natural resources on mother earth on the other hand.

Human beings are an end in themselves. Every other thing is seconded to it without compromising the integrity and sanctity of the human species on earth. It must be stated that whenever there is an exhibited mismatch between human production systems and practices, and specific attributes of the resource base of the environment, a reversal of such inhibiting mismatch becomes imperative for restoration of ecological balance.

Restoring ecological balance as a response to obviously past adverse use of the natural environment and its resource base; and indeed maintaining a near consistency in ecological resource balance are at the nerve centre of our analytic base in this course. In fact it constitutes the basis for understanding sustainable development.

Most past assumptions of human development were couched on economic growth theories such as those of W.W. Rostow's Stages of Economic Growth.

Thus, exploitation of finite and renewable resources of the environment was for sustained economic growth and development. That worked for a time to the extent that intense exploration, exploitation and consumption

of the resources were within containment of the carrying capacity of the environment and its renewable potential.

However, with passage of time, teeming population, sophisticated technical progress and their overall impact and pressure on the environment, a rethink began to emerge. The challenge in the contemporary situation remained that of a clear need for regulated control of the living environment based on principles of sustainability.

It has become evident that the paradigm shift from sustained development to sustainable development in light of global environmental concerns becomes an imperative. The pressure of demand made on living and finite resources has risen to a height where the former development styles, processes and their product are now inappropriate and incapable of coping with long-term human demands. Essentially therefore, sustainable development has become the enigma for our common future. Pressure placed on the carrying capacity of the earth and its resources is reaching alarming proportion.

At the front burner of development are environmental issues. In Nigeria for instance, there is both cultural diversity and ecological diversity. With about 250 distinct ethnic nationalities, the ecosystems range from the southern mangrove swamps, rainforests to savannah woodlands, and semi-arid sahelian regions in the north. The country is characterized by varied landscape, climate, soil, vegetation minor regional dichotomies. Indeed the country can be studied as a paradigm of the paradox of development in Africa.

Poverty is high with population growth rate (3.3%) one of the highest in the world. There is rapid depletion and degradation of air, water and soil resources. Pollution and deforestation, soil erosion, oil spills and toxic dung and uncontrolled human activities make the environmental situation a grave one. These environmental problems are product of development activities. This means that the ecology and economy are co-present challenges of our time. The strategy for responding to this challenge takes us to sustainable development.

## **SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT**

Sustainability has become the central focus in development studies today. For researchers and policy makers, it has remained a catchphrase. It echoes notes of intergenerational equity in environmental resources utilization. The concept is diverse in application and meaning depending on the orientation and professional framework being used.

Of central value to the concept are economic, technical, ecological, environmental, material and human resource base. The origin of the concept can be traced. The club of Rome report – Limits to Growth published in the early 1970's; the Brunt-land Report; even Our Common Future published in the 1980's and the Agenda 21, a report of the Earth Summit held in Rio de Janeiro in 1992 are significant contributions to the development of the subject of sustainable development.

Specific use of the concept of sustainable development was first used and developed in the World Conservation Strategy published by the International Union for the Conservation of Nature (IUCN, 1980). Three specific areas were covered in that document – namely:

- The maintenance of ecological processes
- The sustainable use of resources, and
- The maintenance of genetic diversity.

Very little attention was paid to the economic dimension of the concept.

Guided management of human use of the resources and wealth of nature by nation states is vital if it is to yield the greatest benefit to the present generation and at the same time maintain its potential to serve the needs and aspirations of future generations and society. Sustainability therefore deals with development, which meets the needs of the people of the future without compromising the needs of the present. It brings consumption and conservation together in a way to promote peace.

Tools of production must be controlled by attitudinal change directed by the sustainability impulse. Viability of the economy, appropriateness of technology, institutional change through education, human security and peace, and of course, harmonious natural and socio-cultural environment comes together. The essence: to create socially acceptable indices for human peace, quality of life and development. In essence, both natural and rational variables must be brought into our development thinking. Economic growth and ecological quality must agree.

### 3.2 Sustainable Development Processes in the Environment

Sustainable development processes are dynamic and can only work through series of actions taken to achieve human-centred development objectives:

- To meet the basic needs and security of all people on the planet earth and help them live in dignity and peace.

- Development is pragmatic and progressive, it is based on the level of knowledge available to people, their social organization and how they apply themselves. So it must be made sustainable.
- Globalization, which supports sustainable patterns of trade and financial relations, serves to engender world peace.
- Flexible political and administrative structures have the capacity for self-correction to engender authentic development.
- Economic growth that is married to environmental quality sustains human security.
- Basic human needs meeting orientation which supports livelihoods and reduces poverty is a human peace initiative.
- Population control through family life education makes for meaningful existence.
- Management of environmental risks mitigates the incidence of disasters.
- Technological re-orientation should reduce ravage of environmental resources.
- Team spirit and participatory decision-making should guide decision-making and development activities.
- A self-adjusting economic system able to sustain itself is one guaranteed process for sustainable development.

#### **4.0 CONCLUSION**

The dispensation in which we live is a challenging one. The range of earth life forms, ranging from aquatic to terrestrial species is exposed to un-simmering human pressure. From the forest to the oceans, environmental resources are being depleted with vigor. Attitudes of people towards the non-human world have become so predatory that we are beginning soon to live as endangered species when the very basis of our survival is in jeopardy. It is therefore a great concern that nations begin as a matter of urgency to follow the path of ensuring long-term harmony in the economic and ecological practices for all generations.

Sustainable environmental development is not just a concept but also a process and an end. It demands an understanding of development imperatives and an attitude of mind to make it work to support human security and peace through conservation of natural resources for sustenance of livelihoods.

## **5.0 SUMMARY**

We have presented sustainable environmental development as a concept for environmental balance. It is an attitude of mind, which gives direction to all activities that have impact on the environment. We also presented the various processes through which environmental balance can be enhanced based on sustainable thinking.

## **6.0 TUTOR-MARKED ASSIGNMENT**

1. What is sustainable environmental development? In what ways would you describe the relationship between development and the environment?
2. Explain how sustainable development is both a process and a product of a process.

## **7.0 REFERENCES/FURTHER READINGS**

IUCN/UNEP/WWF. (1991). *Caring for the Earth*.

*A Strategy for Sustainable Living*. Gland, Switzerland

IUCN-UNEP-WWF (1980). *World Conservation Strategy: Living Resource Conservation for Sustainable Development*. Gland: IUCN.

## **UNIT 2     PRICIPLES OF SUSTAINABLE LIVING**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 The Principle of Human Settlement
  - 3.2 The Principle of Sustainable Society
  - 3.3 The Principle of Institutional Strengthening
  - 3.4 The Principle of Mainstreaming Environment
  - 3.5 The Principle of Participatory Development
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

Living involves the combination of the elements of nature and nurture to keep life going in human settings. Socialization or upbringing is instrumental to the knitting of these elements to support life. The upbringing we experience as humans is indeed a link between the natural provision and rational necessity.

The living process is a biological function. To that extent, we as human beings relate with the biosphere and all its complex life-support-systems. This is on one side. On the other side, we are inundated with a floury of appetites, which motivate us to act the way we act. In other words, we think towards a purpose and act to satiate or fulfill that purpose. However, unlike other animals, humans are rational. They have capacity to reason, plan, act in a pre-determined way and evaluate the actions which are taken in relation to the value they serve. Thus, the identification, pursuit and attainment, allocation and use of value as well as making choices between values is a rational function of human beings.

Sustainable living is one such value. Sustainable living is a value that transcends all generations of human beings. Every generation is inundated with security, food, prosperity, peace and other related high level values associated with survival and continuous perfectibility of living standard. Essentially, a needs meeting ideology must be founded upon inter-generational thinking. This way, we can more meaningfully live in peace and harmony without leaving a heirloom of threat to future generations.

Consistent with sustainable living are some fundamental practices that can lead humanity on the path of sustainable living.

## **2.0 OBJECTIVES**

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

- defend the need for sustainable living
- explain the concept of human settlement in relation to sustainable living
- show the relationship between social institutions and sustainable living
- demonstrate how to mainstream environment and development
- justify the need for participatory development
- explain attitudinal change for sustainable living.

## **3.0 MAIN CONTENT**

### **3.1 The Principle of Human Settlement**

Human settlement is an important contributor to social progress and economic growth and development. Where people live in hamlets, villages, towns and cities must be made safe and healthy. In fact such settlements whether nucleated, sparse or linear need to enjoy social justice in terms of the distribution of amenities, infrastructure and other facilities which contribute to sustainable living.

We need to engender awareness about such settlements particularly so for the socially disadvantaged, secluded and indigenous people. Sensitivity of the public and non-government agencies to gender equity and vulnerable habitats and the people who live in them would help planners focus on sustainability issues.

Shelter is one inalienable right of human beings. Around the world, international consensus with respect to policies and goals as well as action plans to mobilize international resources for human settlements are required for sustainable human settlements and shelter for peace. It is our individual responsibility to protect the liveable settlements against unwarranted and unseemly impact of human activities. In doing this, we must be conscious of the environmental concerns of both rural and urban dwellers. Accordingly, the social institutions must be strengthened through capacity development using acceptable indices for livelihoods and peace in the communities in which people live.



### **3.2 The Principle of Sustainable Society**

A sustainable society is the society, which pays attention to actual, evidential improvement in the quality of human life, through acceptable conservation practices. It creates a goodness-of-fit between the economy and the ecology in mutually supportive way. It is a rational attempt to go beyond gambling for survival.

The principle of sustainable society interlinks a number of indices and strategies. Condensed in this principle is:

- Conservation of living resources of the environment. This includes the conservation of biodiversity – all species of plants, animals and other organisms in the biosphere. Conservation of life support systems to ensure their renewability. It also involves making sustainable use of the renewable resources, and reduction in the exploitation and consumption of finite resources that are not renewable.
- There is an attitudinal dimension of this principle. It requires that we keep within the carrying capacity of the earth and change our attitudes towards the non-human world and inculcate in people socially valuable actions and concern for nature.
- Population control is another ingredient of the principle. Women health issues, women education and reduction of feminized poverty and making sure that every pregnancy is intended are essentials.

Protection of women from unsafe abortion and society must ensure that every child is a wanted child. Education for all, and promotion of responsible behaviour, as well as close the gender gap and improvement of family life education to combat HIV/AIDS among others need to be encouraged.

- Community environmental education is vital to enable communities take necessary actions to care for their liveable communities and environments. This also means that a national policy framework for harmonizing development and environment needs to be put in place. Environmental impact assessment of all development plans must be used to ascertain the social relevance of intervention programmes. Global partnership and alliances for mutual interdependence and sustainability of all nations, has become a universal value for humankind.

### **3.3 The Principle of Institutional Strengthening**

Social institutions from the family level to the national in global levels must be strengthened for them to exercise substantive capacity for environmentally friendly practices. Public and private institutions, the schools, markets and other places people gather for intense activities need to be strengthened to cope with environmental challenges around them.

To strengthen our public and private institutions to cope with the new world environmental order, good governance at all levels is required. Government must be based on tenets of democracy and social humanism. We need to create popular leadership structures in such a manner as to ensure popular participation of the people. People need to be mobilized and integrated into the mainstream of governance by involving them in those decisions which affect their well-being.

When we strengthen our social structures we contribute to peace and crisis resolution. How? The allocation of scarce values, integration of society, transparent leadership, accountability and participation of the people are carried out with less friction. Essentially, cohesion is ensured and livelihoods improved. What this means is that, poverty can be reduced to foster sustainable peace and human development.

Effective strengthening of our social institutions means that we need to challenge those social arrangements and practices which perpetuate and reinforce environmental decline. The essence is to enhance environmental balance. It will help us to understand how the various parts of the social system function to contribute to environmental peace. It equips us with increased capacity for decision-making.

### **3.4 The Principle of Mainstreaming Environment**

Environmental concerns, issues and activities can be mainstreamed into all facets of human endeavors. The principle can be applied in three ways. Mainstreaming can be done through the educational and or administrative structures of society.

Focusing on the school system running from Primary to the University level, we can mainstream through the Curriculum. How?

- i. Insertion:** Expose learners at various levels of the system to environmental education as a subject to qualify them for their various disciplines or course of study.
- ii. Interdisciplinary:** Make development and environment a unit of study in the entire course menu offered in our school system.

- iii. **Programme design:** In the non-formal education, those who plan professional seminars, conferences, round-tables, workshops should integrate development and environment into their programme contents.

In these three ways we can create a broad field technique for promoting environmental awareness.

At the administrative level, we can establish inter-agency, cross-sectoral linkages for mainstreaming environment and development. In order to achieve a characteristic multiplier effect all establishments, parastatals and civil society need to create budget and opportunity for environmental matters. This is because whatever their role, it has an impact on the environment and somehow they need to express and demonstrate their concern for environmental balance. All types of government and non-governmental organizations are stakeholders and must therefore partake in protecting it.

### **3.5 The Principle of Participatory Development**

Participatory development suggests that all people are part of the development stakeholders. Thus, everybody needs to be mobilized and carried along in the steamboat of development. The principle can be applied through public, private partnership, backward integration, community participation, design and implementation of programmes of positive discrimination. Other ways are gender sensitivity in both breadth and perspective, and vertical and lateral integration of all users of the environment whether people or corporate organizations.

The principle of participatory development means that there can be no state left out, nobody standing aloof. There is need for global alliances and development cooperation, which is able to ensure universal equity relating to environmental conditions and the social integration of all people living everywhere.

For this principle to work, our attitudes towards nature and the environment must change. We must learn to produce and protect for the economy and ecology, for peace and development. Our values and value preferences must change. Our social institutions, and technology must be conditioned based on value classification, clarification and orientation of all environmental stakeholders. It means also environmental awareness through making education for all a reality. In this way, we can enter the part towards intergenerational equity.

#### **4.0 CONCLUSION**

For human beings to be inundated or even annihilated, the key to our common future lies with us. Knowledge is power and without it we are bound to perish. There would be an imminent danger when we live in wanton neglect of the living environment. We must have access to the available resources of the environment. At the same time we also need to realize the fact that the environment must be allowed the potential to renew itself and replenish its fast vanishing resources. As we create wealth from the environment for our economic boom, we must not credit waste to it for ecological doom. This will boomerang back on us. To forestall this danger, we need to live in consonance with natural rules. Thus, some principles can help us live and derive optimum benefits from the environment and at the same time maintain intergenerational equity for sustainable human development. This is the attempt made in this unit.

#### **5.0 SUMMARY**

The ability to provide for human needs and consistently do so for all generations can hardly be attained without sustainable living. Sustainable living demands that our cultural space must be adjusted to contain a balance of productive forces and relate those forces in a manner that is consistent with environmental balance.

We must maintain, sustain and continue to have habitable communities. There must be even spread of social infrastructures and other values in order to fight against exclusion. Such settlements must be protected against pollution and other activities, which cause environmental decline. Enhancement of the living standard is the concern of people-centred society. How this can be done through population control, attitude change, positive discrimination to favour the disadvantaged social groups has been shown in this unit. We need also to protect the environment and the people who live in it. Our social institutions must change and be strengthened to protect the living environment for peace.

Environmental issues need also to be mainstreamed into our development policy and school system in all areas of programme and curriculum implementation. Everybody as an environmental stakeholder must be mobilized to participate in its protection for sustainable living.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

1. What do you understand by sustainable living?
2. Explain the principle you would use to defend the need for sustainable living.

## **7.0 REFERENCES/FURTHER READINGS**

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## **UNIT 3 ENVIRONMENTAL ETHICS FOR DEVELOPMENT**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Human Ethics and the Environment in a Changing World
  - 3.2 What is Environmental Ethics?
  - 3.3 Rightness and Wrongness of Environmental Actions
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

Moral ignorance can make people live as environmental patients. This is particularly so, when people think that morality as the fibre of human conduct has no human application. But our relationship to the environment has a moral suasion at least to the extent of using environmental resources as a means to an end. Consequently, users of living and finite resources of the environment require a pre-emptive understanding of how ethical considerations can underpin environmental resource utilization.

In this unit, attempt is made to present environmental (morality or) ethics in the light of what is morally good practice, or bad approach, right or wrong actions, and so on. What ought to be as opposed to what is, right and wrong are other areas elucidated in relation to living in peace within the environments of our only one earth. The foundation, rationale and justification of environmental ethics are considered in the following.

### **2.0 OBJECTIVES**

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

- demonstrate a broad understanding of environmental ethics for development
- analyse the relationship between moral philosophy and the environment
- describe in our own words, the meaning of environmental ethics

- explain what constitutes right environmental actions
- discuss the concept of wrongness in relation to environmental actions.

### 3.0 MAIN CONTENT

#### 3.1 Human Ethics and the Environment in a Changing World

What is the right thing? Is it really a function of the strong in society? Can we aver that those who wield power know the right thing to do? In fact, far from it. For as we see, what ought to be is different from what is. What we know to be right is different from what is done as right. Several factors interplay in this matter. The effectiveness of decision differs from its real value and its value to the decision maker and the rest of others. Interest cluster and overlap are deterministic of the pristine value considered relevant in any decision.

If the interest of the strong rules the situation of the weak, it is quite inconceivable to think of ethics as a potent regulatory force of oughtness. Between and among people and indeed between people and the non-human world, prescriptive standard setting remains a normative problem. Individual differences, cultural relativity and indeed rank-ordering of prioritization in nature count. From place to place we are confronted with a hotchpotch of cultural mores and prevailing patterns of ethics, which are deterministic of what the people accept as good or otherwise. However, the greatest good to the greatest number is fundamentally more informative.

The ethical failure that prevails in earth relations is explicable in many ways.

Humanity is heading toward annihilation by fighting the very basis of its existence. There is a clear and near absence of ethical relativism. Many factors account for this.

1. In modern and the post-modern society we have entered in the 21<sup>st</sup> century, the interest of the mighty and strong is greatly and increasingly recognized as right. This also affects in no mean level, environmental resource planning, management, exploitation, utilization and control. An end drive largely determines the means employed with little regard for future of the environment.
2. Cultural anomie and relativism is no longer holding sway. Cultural atomize is taking over in such a manner that mores and

ethical standards within cultural milieus hardly ever now determine what are acceptable and identified as good. Parametric influences filter in from external environments making domestic environmental practices respond to needs determined from outside. But this is not the point. The fact is that greed and avarice lead to predatory usage of the wealth of nature in a way that compromises the livelihoods of the very people the land and its resources is supposed to support.

3. There is the individual phenomenology. Prominence is growing in the sense of according individuals the free will to see themselves as reference points. What is good and what is bad, and the means to achieving it is determined by each individual without social recourse. Individualism thus erodes or tends to erode the pristine value of morality relegating it to insignificance. People do what they want to and with whatever they find around in their livable community. Feeling for the rights of others to interfere in their misdeed is abandoned without moral suasion in the community.
4. Individuals tend to be existentialistic. In that way, they perceive every moment as their personal opportunity for whatever. A mind your business logic pervades modes of thinking. This perception leads to attitudes that can hinder the harmony of life support systems on the earth owing to absence of some rationality.
5. Non-ethical living is becoming idealized. This turns down the fibre of control which society should logically hold on people.

### **3.2 What is Environmental Ethics?**

Ethics has a Greek origin (ethos) which means customary or custom and in a sense moral. Ethics can also be regarded as moral philosophy. It makes moral judgment and evaluates what is right or wrong, virtuous, or vicious, approval or disapproval and in fact desirable or undesirable. It equips us with instrumental judgment about thoroughness in the ethical pursuit of human absolute ends of good life and good living.

The value of good living is instrumental in that it leads to behaviors and conduct, choices and decisions that can produce change. The consequence of such change depends for its approval or disapproval on the value it hands down to the individual and or, society. Herein lies the rationality of examining good living. Environmental ethics therefore makes us aware of the negative effects of bad environmental behaviors and practical choices as well as the approbation accorded good acts of volition between competing environmental decisions. Through it, we



periscope available options to understand what constitutes good or bad rationality in them. In this way, it helps the attainment of environmental protection with approbation. It orders our environmental behaviors in order to attain the goals of sustainable development for our common future.

There is relativism in ethical understanding otherwise known as situational ethics. Why would some environmental behaviors be termed bad and antithetical to peace and others considered to be good? Who sets the moral codes or criteria for passing such judgments and what is the scope of their acceptability? If we delimit the scale to an environmental zone or province then, what about the issue of universal environmental ethics? Is environmental ethics culture-bound and therefore determined by situation, place or time? Ethics thus helps us to understand environmental concerns and to carry out a moral evaluation of them.

Through ethics, we strive to behave in the best way in making choices towards the environment. Environmental ethics brings a wealth of benefits to all life-support-systems; in that it clarifies and justifies moral actions in relation to our ecological behaviors. In this way it injects moral rules in our coexistence with the living earth. Without it, the interplay of varying interests of the society and those of the environment will experience attendant conflict. We agree in therefore that environmental ethics examines the nature of oughtness, rightness as well as wrongness of our environmental behaviors and actions (Bahm, 1980; Ozumba, 2001)

### **3.3 Rightness and Wrongness Of Environmental Actions**

It is quite inconceivable to think of rightness or wrongness of environmental actions in a unilateral manner. This is because the concepts of rightness and wrongness as they define environmental behaviors can be approached from different dimensions. There is no one facet rigid interpretation to it. Viewpoints vary according to what appeals to people. Customs, norms, values, beliefs, mores, ethical standards and ideology are other variables, which impinge on such interpretation.

From an ought to perspective, it is the right which determines what we should take or adopt as an ethical code, value, customs etc. But this is not the case. In practice, it is the reverse. Herein lies the problem in environmental behaviors arising from antithetical conduct in our time.

Right is recognition accorded not what we can point at. It derives from what is good in the same way is derived from ought. For instance, it is

right to keep a promise whether or not it appeals to the greatest number. It may not be good but it is right to do so.

However, when a promise carries a consequence, which is detrimental, it might be obviously wrong to keep it. This is where, for instance, environmental impact assessment can help us to carry on or stop an intended development project depending on the consequence of such a project on peace and the environment.

Some ethicists see right as that which people perceive or wish to be the universal maxim. What we cannot wish to be universalized can not be right. Consequently, environmental degradation is wrong. Other naturalists, see rightness differently; and in relative contexts. To them, the right action is one, which is conducive to the attainment of more weal or balance. Thus, it depends on the value systems of people and cultures. In this regard, what is right is a matter of opinion and moral disposition. In this sense, what is right, good and the pleasurable become confused.

The utilitarian define rightness and the goodness in terms of means and ends. To them, what is right or good is understood in terms of the pleasure, happiness or satisfaction they produce, and their approbation by the individual or the group in which the action is expressed.

In the final analysis, objectivity in ethical definition is what counts. Not our emotional states, which could lead us to take seemingly right actions, which we later come to find, were misjudged.

The right thing transcends influence of circumstances for it to be right. This is where the universal norm counts in contemplating rightness.

The other side of rightness is wrongness. The concept of rightness and wrongness relate in a competitive order. Placed on a weighing balance, the more of one means the less of the other. Thus, for one to be right means that one is not wrong. In essence, right environmental behaviors will be applicable in all circumstances that wrong environmental behaviors are not applicable. The concepts are mutually exclusive. The concept of wrongness is not monofocal. It is multifaceted.

When an action is wrong, it does little to produce a greater balance of good over evil, pleasure or pain according to the naturalistic viewpoint. This prima facie understanding of rightness and wrongness is independent of their value in terms of melancholy or happiness, good or evil, pain or pleasure. For instance poaching (stealing) in a protected environmental site or breaking a promise to keep environmental peace are prima facie wrong; no matter the consequences or popular opinion

held by people about them. This is a non-naturalists viewpoint. The view transcends emotions or caprice as it is objective and given.

This translates that; wrong environmental actions are disapproved and unacceptable to the individual, society and sustainable development. Time can affect this interpretation. For instance, at a time in our development, unguarded exploitation of the forest was unquestioned as wrong. But now it is found to be unacceptable and disapproved by all nations. Colonialism and slavery were right at a time. It is wrong today. Ignorance, attitudinal disposition and mistake are some factors which can mask our value of things which are wrong ab initio even when we hold them to be right at a given time.

From the perspective of obligation and duty, we open up another vista. To do things in total neglect of duty to nature and society cannot exonerate one from being wrong. It is an obligation to live up to this expectation and a duty to keep it as a lifestyle. Understanding the wrongness of an environmental action should be a deterrent from acting and guide us in contemplating future actions towards the environment.

#### **4.0 CONCLUSION**

Certainly, there are moral predicates in which constitute the 'hub' of environmental ethics and consequently guides our environmental practices and their socio-economic impact and values. Every environmental action constitutes a moral judgment. Essentially, there must be a moral criterion for dealing with environmental concerns, problems, issues and decisions. Habits, attitudes, customs must be rooted in ethnical factors for their filtration as use is being made of the environment. In this way can sprawl towards improved livelihoods and sustainable use of the environment.

There is a relationship between attitudes and use of environmental resources. Positive attitudes would lead to sustainable environmental resource use and development. Negative attitudes produce environmental decline. Thus, as has been shown, environmental ethics helps to clarify this order and enable us make proper and appropriate choices in decisions affecting environmental resource use.

#### **5.0 SUMMARY**

Effort has been put into this unit to explain in plain language, the concept of moral philosophy. The relationship between ethics or moral philosophy and the non-human world has also been depicted in the course of this unit. The concerns of environmental ethics have been made clear to justify the need for ethical interpretation of environmental

actions. To keep the environment right on course in our human struggles for livelihoods, self-improvement and sustainable development is clearly portrayed in this unit. Thus, it is hoped that the student will be equipped with the requisite knowledge gained from this unit to be properly positioned to take worthwhile decisions, which impinge on environmental resource use.

## **6.0 TUTOR-MARKED ASSIGNMENT**

1. What role do ethics play in regulating human behaviour? Relate such ethical conduct to the changing conditions of the living environment.
2. What do you understand by environmental ethics?
3. Differentiate between what constitutes right and wrong environmental actions.

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## **UNIT 4      QUALITY      OF      HUMAN      LIFE      AND METAPHASE DEVELOPMENT**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Basic Education for Economic Growth and Enhanced Livelihoods
  - 3.2 Human Security, Militarisation, Disaster Control and Management
  - 3.3 Positive Discrimination and Partnership
  - 3.4 Mainstreaming and Monitoring Sustainability in Development Planning
  - 3.5 Focus on Longevity Programmes
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

Many dimensions cluster to make up basic education required for economic growth and enhanced livelihoods.

- Provision and access for all. The foundation for human development in its entire gamut begins from here. Distributive education requires that people (children and adults) everywhere have proximate and open learning opportunity through the location or planting of schools and non-formal education near where they live. Difficulty indices in terms of cost and other discriminating factors need not count against their desire to learn to know.
- Attendance, Retention and Continuation.  
There must be effective strategies put in place to ensure proper coverage and adequacy in the enrolments of learners into various learning institutions in the society. In addition, those enrolled must be made to enjoy the learning experiences, which they are exposed to through good motivational techniques applied by trained teachers and facilitators to reduce attrition rate of drop-out and relapse into illiteracy. Various completers of school should also have reasonable prospects to acquire new knowledge, which impinge upon their work life and self-improvement.

- Equal Educational Opportunity. Male and female, children, young people and adults in urban and in rural settings including those living in exceptionally difficult circumstances should be made to receive education as an investment into lives. In doing this, we must ensure that what the institutions offer is relevant to life in society and their livelihood enhancement. In this way we can gradually attain education for all with high pay-offs for the beneficiaries.
- Environmental Education. People need to be educated into their society, not away from it. Their education should enable them live in peace and harmony with society and nature for mutual interdependence. They should understand the need and value to preserve and conserve nature for the protection of life on earth. In this way people can be equipped for sustainable economic practices and enhanced livelihoods.

## 2.0 OBJECTIVES

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

- explain how the state can influence the quality of life and livelihood
- describe the components of human security
- identify the components of metaphase development
- find out the role of positive discrimination in metaphase development
- be able to mainstream sustainability into development planning.

## 3.2 Human Security, Militarisation, Disaster Control and Management

There are two sides to human security-external and internal. The first has a state-centric focus. It attempts to protect the citizens and people living in a country from external threats, invasion and violation of the territorial boundaries. It has a defense orientation to maintain the integrity and corporate existence of the country. The second is human-centred. It focuses on the individual as the object of obligation. In this wise, security is seen as a function of good living standard enjoyed or denied the people. In the final analysis, it is believed that, it is improvement of the quality of human life which counts. Full opportunities for self-improvement and self-reliance in a way consistent with the regulatory potential of the earth also matters. Through this, individuals are able to enhance their life and build a great and dynamic economy.

Governments must work to check activities of people under the law, and be able to resolve conflicts and settle disputes peacefully particularly so

in frontier zones. The rights of ethnic minorities and indigenous people must be considered and protected in the scheme of things. This is also true of those living in settlements that are vulnerable to disasters.

We must be able to deal with the predisposing factors of militarisation. These include expansionist ambition, pursuit of an ideology, self-interest, a redrawing of boundaries and resource control. There are others such as psychological disposition towards aggression, acquisitiveness and a thriving in strife. All these are human factors affecting sustainable human development.

The quality of human life is affected by natural phenomena in contemporary development. There is teeming population growth; together with increased environmental vulnerability. This means that security apparatus need to be focused against natural occurrences, which adversely affect quality of life

- Floods
- Erosion
- Draught
- Earthquakes and Volcanoes
- Climate change in a way gives its tempo to it.

Reduced to basics, it means, development projects must pass through proper Environment Impact Assessment (EIA). We need also to establish and sustain an early warning mechanism against disasters. Provision of shelter, relief and emergency analysis and intervention for both internally displaced persons and refugees need dedicated attention.

### **3.3 Positive Discrimination and Partnership**

Social stratification can be examined from many angles such as:

- The Bourgeois/ Proletarians
- Urban and Rural
- Literate and Illiterate
- Male and Female
- Leaders and Followers
- Producers and Consumers
- The privileged and the secluded; etc.

There are always those who have more than enough and those who have less than enough to meet their daily needs. Like other aforementioned categories, one thing characterizes all of their coexistence. Mutual coexistence is key to social harmony and the sustenance of enhanced quality of life and peace.

A careful study of social groups and of course, groups dynamics shows that some people are in the privileged and others in the deprived groups. This is in terms of the sharing and enjoyment of values, which improve the quality of life. Whereas some are at the centre of such values in terms of protection of their interests, others indeed majority live at the periphery and fringes of social attention.

Understandably, for social balancing to take place, first we must identify such groups in terms of their past and present levels of deprivation and the degree of effect on their livelihoods. Next, we need to consider such groups first in terms of distribution of core values. The framework of social policy and development orientation makes much sense when those categories are accorded priority attention in the scheme of things. They constitute a crucial group for the determination of the evenness of development policy. Positive discrimination implies thus that, we focused on and provides the needs of the less privileged first before we consider others. This encourages and strengthens social justice.

Partnership, which supports and enhances the quality of life is one which integrates all people in the agenda of development and encourages the realization of their full potentials. Positive discrimination is one ambience for such environment.

### **3.4 Mainstreaming and Monitoring Sustainability in Development Planning**

Sensitivity to environmental issues and concerns is key to sustainable development. Development planning is a multi-faceted activity. It involves the consideration of all the economic sectors for future development. Through it we are able to identify and anticipate needs of the future and potentially design strategies for meeting them. Essentially then, it involves a careful understanding of baseline data, a compilation of appropriate statistical data on the quality of life, and the infusion of these into all aspects of development planning.

Vitality, the mainstreaming of environment is central to sustainable development planning. How can this be done? One way is through the interpretation of all development programmes in terms of their environmental implications. Moreover, all key aspects of development work-plans need to show how ecological decline will be attended to such as reduction of environmental pollution and waste management. Such forces on the environment need to be renewed in a way, which helps to improve environmental quality.

Surveys, monitoring, appraisal and other research and evaluation strategies need to be identified and applied to specific conditions with a



view to ensuring environmental protection management. This means further that data on such cases must be adequate in terms of coverage of scope, reliability and accuracy in terms of measuring what they are designed to measure.

### **3.5 Focus on Longevity Programmes**

One key implication of environmental protection is for the health of humanity. Healthy living and longevity are environmental concerns. Decision makers must be able to identify all the common, preventable and infectious diseases which wipe out millions of people every year. Measures must accordingly be taken to deal decisively with them. For instance the prevalence of HIV/AIDS, tuberculosis and malaria (ATM) in Africa and their devastation of life is unacceptable.

Epidemics and pandemic diseases are alarmingly leading humanity to the brink of annihilation. Some regions and indeed environmental conditions are making people live as endangered species.

To tackle the longevity problem, some prompt measures must be taken:

- Universal availability and access to safe water and distribution based on positive discrimination in favour of the poor.
- Complete immunization of all children against the major childhood killer disease.
- Fight against malnutrition and a reduction of under-five mortality rate by all means possible.
- Attention must be paid to the health of gerones and other categories of senior citizens around us.

### **4.0 CONCLUSION**

To a large extent, the quality of human life rests upon the level of interaction which humanity makes with the environment. The interaction enables people and nations to be able to realize their potential and obtain a fulfilled improvement in their material condition.

There are many sides to this interaction. There is growing social evolution wherein lies a lot of attempts at catching up and transfers of values and obligations between social strata and across nations. What gives meaning to this interaction is continuous availability of the resource loss to nations, its growth and access to its utilization to guarantee abundant life as well as enjoyment of full and bright opportunities for the people. It also involves essentially, meaningful participation of the individual in sustainable development.

Metaphase development enables us to speak of development in specific terms, which enhance or hinder peace and sustainability of life. It is the development, which involves in the main, institutional and instrumental change and the consolidation of best practices to legitimize and justify human actions to protect the right human value and aspirations. Such development is driven by sustainability and responds to intergenerational needs: it is development as a human function to serve human needs.

## 5.0 SUMMARY

A five- factor approach has been used to drive home the understanding of meta-phase development as it impinges upon the quality of life.

- The provision of basic education in its widest interpretation and the ability to make it accessible to the largest number is instrumental to the acquisition of living or life-skills for self-improvement. In so doing, there must be no discriminatory factors of age, race, creed, gender and location.
- Human security must be understood as both territorial and of meeting the per-capita needs of human beings. An early warning mechanism, control and management of disaster and environmental decline also count.
- The poor, the disadvantaged, vulnerable groups, the aged, disabled and the secluded need to receive top priority in development planning and provision of social services. This way we can enhance their quality of life.
- Sustainable development is not a mere catch-phrase. It must be an operational key in all areas of our development policy and practice.
- Pro-life attitude, behaviour, policy and deliberate actions must be taken to help people live long and fulfilled life. These are development imperatives, which we must work to attain.

## 6.0 TUTOR-MARKED ASSIGNMENT

1. Three specific factors affect the quality of life. How does metaphase development account for those factors?

2. Why do you think positive discrimination is a concern in the attempt to improve quality of life?

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## **UNIT 5 CARRYING CAPACITY AND THE ENVIRONMENT**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Carrying Capacity of the Lithosphere
  - 3.2 Carrying Capacity of the Atmosphere
  - 3.3 Carrying Capacity of the Hydrosphere
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

The environment is a life-support system with several inter connectedness. It is a haven of life. Life cannot be found and has not been discovered in any other planet besides the earth. That is why we can say we have only one earth that cannot be replaced. The earth carries us. Life is found here through a system of reciprocal exchanges between plants and animals, carbon dioxide and oxygen. The sun stands out unique as the governing source of energy.

Human beings are the chief propellants of environmental change.

In essence, we can both inundate and annihilate the very existence we have on earth through our own actions. The potential to regulate the activities, which go on in the environment, therefore lies with us. It is the regulatory potential of the entire biosphere made up of land, air and water (LAW) in a fair state of balance that is referred to as the carrying capacity. It is the potential index, which carries and keeps life going on the earth; and its biosphere or life support system.

### **2.0 OBJECTIVES**

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

- demonstrate an understanding of the concept of carrying capacity
- identify the three main elements where carrying capacity is applied in the environment
- show how land use practices affect carrying capacity of the environment
- assess the impact of air quality to determine its carrying capacity.
- discuss how the water bodies are affected by our understanding of carrying capacity of the environment.

### **3.0 MAIN CONTENT**

#### **3.1 Carrying Capacity of the Lithosphere**

There are several ways the living environment can be put to its natural use. First the lithosphere can be explored to promote human activities for survival. The lithosphere comprises the landmass. It is the earth crust with all the minerals and other resources in the 'bowels' of the earth. It also consists of the vegetation cover and the rich variety of flora (plants) and fauna (animals) that are found on and in the land. This is where we exist and live.

When put to its natural use, the land remains in a static state of balance. It destroys and replenishes itself at about the same rate. In other words, it is like matter-neither created nor destroyed.

A great part of the activities of human survival are carried out here on the earth. We invent and device tools to gain control of the lithosphere. Both as homosapiens and omnivores, human beings are sage or should be sage users of the environment. To this extent, they transform and add value to the material state of the environment. By drift of adventure the people of the earth, explore, study and make use of plants and other animals to meet their needs and serve their other developmental goals.

The mineral wealth such as the aquifers must be struck, crude oil, gas, diamond, gold, iron ore, copper, bauxite, granite, coal and so on are needed for development purposes. Marine resources including fisheries are required by us. However, we must note that there is a limit to the extractive capacity of human beings with regard to environmental resource base. Wanton exploitation of those resources, pressure on the land through construction activities can quickly cause environmental degradation making the lithosphere to exceed its restoration potential or its carrying capacity.

#### **3.2 Carrying Capacity of the Atmosphere**

The atmosphere is the blanket sheet of gases covering the earth surface. It is the first layer of air from the earth extending upwards before the stratosphere where Ozone is found. The atmosphere consists basically of oxygen, carbon dioxide, nitrogen and other trace gases. The gaseous exchanges between plants and animals derive from here. When there is atmospheric balance, we have clean air.

However, this atmospheric balance can be distorted. There are a lot of human activities, which produce air pollution. Industrial effluents, bush burning fumes, soot, dust, mists, noise, smokes and so on contribute

to air pollution. All these help to affect the chemical composition of the atmosphere. In some cases it can mix up with rain and pour down on earth as acid rain. This phenomenon has a devastating effect on aesthetic and architectural beauty of towns and cities as well as life forms of animals and plants on the land.

### **3.3 Carrying Capacity and the Hydrosphere**

About three quarters (75 per cent) of the earth is covered by water. There are streams, springs, rivers, lakes, oases, seas and oceans. Mildew, snow and rain are all around us. All these constitute the hydrological system or the hydrosphere. They are the water bodies around us. In more ways than imagined, human beings makes use of water daily to drink, for domestic and industrial purposes, an a chemical solvent, and for agriculture, including fishery production and fishing.

However, dumping of chemical wastes, toxicological substances, emissions, run-off water, refuse, dead substances acid rain, and other forms of human wastes into water bodies have become an environmental concern. The practice is unsustainable. It pollutes the water and threatens marine life and spawning areas for fisher production.

Attitudes such as this threaten the marine ecosystem; the purity of water can hinder us from the sustainable use of water to support life. The consequences of such a threat to water bodies are many including the fact that, the life of humanity becomes endangered.

### **4.0 CONCLUSION**

It thus becomes imperative for us to have a lucid understanding of carrying capacity of the air, land and water bodies in our immediate environment in order to get the best out of them. We should also try as much as possible to guide against or minimize any form of activities can lead to environmental pollution which can threaten both flora and fauna existence and survival.

### **5.0 SUMMARY**

In this unit the carrying capacity of the lithosphere, atmosphere and hydrosphere were examined in line with the impact of human activities on the environment.

### **6.0 TUTOR MARKED ASSIGNMENT**

What is carrying capacity? In what ways do human activities affect the carrying capacity of the environment?

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## **MODULE 2**

Unit 1	Preservation, Conservation and Protection
Unit 2	Attitudinal Imperatives for Sustainable Living
Unit 3	Environment Education for Peace
Unit 4	Coping with Environmental Change
Unit 5	Biodiversity and Ecological Balance

### **UNIT 1      PRESERVATION, CONSERVATION AND PROTECTION**

#### **CONTENTS**

1.0	Introduction
2.0	Objectives
3.0	Main Content
	3.1    Preservation of the Environment
	3.2    Conservation and Development
	3.3    Environmental Protection
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Readings

#### **1.0    INTRODUCTION**

Humanity is fast losing control of the environment. The forces of production, the relations of production and the attitudes, which support production practices, and indeed the methods of resource exploitation are far exerting very great pressure on the environment. The result is that anthropological settings of the environment are passing away. Disappearance of species is on the increase and the potential of the environment for ecological balance to support life is in rapid decline.

#### **2.0    OBJECTIVES**

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

- differentiate between preservation, conservation and protection of the environment
- identify the modern and traditional methods of environmental preservation
- explain the values of modern environmental conservation practices
- give examples of environmental protection practices.

#### **3.0    MAIN CONTENT**



### 3.1 Preservation of the Environment

Scientists tell us that matter is neither created nor destroyed in the course of chemical reaction. How true! Can this apply to human relationship with the treasure base of the environment? Preservation is a Green-green concept. The green concept is normally applied to describe the pristine nature of the living environment as a harbour of life. A green-green attitude is an approach to environmental protection through the practice of preservation.

Environmental preservation is concerned with the maintenance of the purity of the living environment and its sanctity. It suggests a museum kind of attitude towards the environment. The natural environment is serene, spiritual and aesthetic and should not be distorted by human activity. Thinkers in this line believe we should live the environment that way rather than distort it.

When we enter a museum, we see things of antiquity the way they were without distortion. In the same way, preservation supporters aver that autochthonous environment should be used for recreation and observation instead of being exploited and eventually destroyed. There are two approaches to this traditional environmental knowledge and modern preservation practice.

Traditional environmental knowledge clearly expresses itself through specific traditional practices to protect ecological balance. In some parts of Nigeria and elsewhere in Africa some forests, hills, rivers and streams are identified as evil or sacred places. Such conception conditions the type of attitude, which the people show towards the area; such places are avoided because of spiritual interpretation and consequently become a haven for plant and animal life.

### 3.2 Conservation and Development

Conservation and sustainable development are catch-phrases that we constantly come across in the study of the environment. We shall examine conservation and development here. Sustainable development is carefully discussed elsewhere in this course book. As we have seen in the proceeding topic, preservation is a wilderness attitude towards the environment. Conservation on the other hand is a garden ethic towards the environment.

Take a gardener, perhaps a vinedresser, and observe how they work. Their attitude is that of caring for their plants. They do this by performing several functions. They observe the garden closely to protect

it from rodents and other unintended incursions. The plants and flowers are cut and pruned to check overgrowth. Unnecessary undergrowth is also checked to reduce competition for food and maintain the garden in its state of beauty and balance. The fruit bearing plants are given an enabling environment to produce fruits of high quality and quantity. The gardener would stretch their wits end to ensure that fruit production becomes continuous and on going. This guarantees supply to meet consumption needs.

In a sense, the target and objective of the gardener is to produce and protect. The gardener fails in the event of production stoppage. In the same way, where the garden is full of thorns, thistles and other weeds due to negligence, inability to protect the garden becomes imminent. Thus, in the final count, it is the protection practices put in place that give rise to the level of production in the garden.

The analogy presented here can help us understand conservation as the core of environmental practice in the society. Conservation is driven by principles of sustainability. We need to produce, through guided exploitation, distribute, consume and protect the environment, which is the basis of our support. Through conservation, we plan for the future while at the same time producing for the needs of the present.

Conservation enables us to have gainful control of the environmental resources around us. For finite resources, we are through conservation thinking able to conduct guided exploitation to help us develop other renewable resources where the garden ethic applies. As can be seen, the enjoyment of our common future hinges on conservation and sustainable development.

### **3.3 Environmental Protection**

Environmental protection is a composite term. It involves a combination of activities including:

- Preservation
- Conservation
- Resource management
- Environmental economics
- Sustainable development

We have treated the first two earlier in this unit. Resource management helps us to direct our extractive capabilities in a manner that is consonant with the principles of resource renewability, and earth's carrying capacity.

Environmental economics which we shall treat in greater detail later helps us to know the cost – benefit analysis of environmental decisions and actions. It provides an audit alarm system between what is natural and what is rational, the ecology and the economy. Through it, the socio-economic and political impact of environmental choices are known and checked.

Environmental protection is sustainable development in practice. It is a network of activities directed at keeping the environment in its state of balance to humanity. It is an insurance for environmental decline and degradation.

In the modern sense, we find wildlife sanctuaries, national parks and other protected sites. This practice allows for wildlife development and therefore becomes a boost to environmental preservation. The promotion and development of tourism, especially eco-tourism gains added potency with environmental preservation practices.

Environmental conservation is a composite concept. It is an agglomeration of some sustainable development principles applied to save the earth. It can be seen simply as a process whereby preservation of nature and conservation of the living resources of the earth are applied to meet the sustainable development needs of people. Environmental protection also includes earth-friendly policies, management, production and consumption processes and their guided impact to make the earth habitable at all times.

#### **4.0 CONCLUSION**

When we are unable to control the rate of resource exploitation and consumption, we head for doom. Thus, it is imperative for us to appraise, audit and consider the impact of our actions on the environment before we undertake them. We all share this one planet and owe it a responsibility to protect it for the emerging generations.

#### **5.0 SUMMARY**

Three key concepts are highlighted in this unit, namely: preservation, conservation and protection. The unit has shown ways by which we can strike a balance between these concepts in order to have a balanced environment. It all depends on us. Our determination to live according to natural laws and principles of survival count in this regard. As equal stakeholders, our commitment to ecological balance cannot be compromised.

## **6.0 TUTOR-MARKED ASSIGNMENT**

Present with concrete examples, the differences and similarities between conservation, preservation and environmental protection.

## **7.0 REFERENCES/FURTHER READINGS**

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## **UNIT 2        ATTITUDINAL IMPERATIVES FOR SUSTAINABLE LIVING**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Environmental Awareness for Sustainable Living
  - 3.2 Motivate Attitude Change
  - 3.3 Policy for Sustainable Living
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

Attitudinal shift is needed for environmental change and for sustainable living. The way people think determine the things they do. Actions are based on thought patterns. The patterns of social behaviors determine the questions of the environment. The environment is a life-support system. Our well being depends on the state of the living environment.

Everywhere around us environmental change is occurring speedily. There are signs of ecological decline here and there. Besides natural disasters, the rate of environmental dereliction is speeded up by human activity and pressure on environmental resource consumption. There is need for control.

The ecological imperative of our time requires attitude change such as would lead humanity back to sustainable living. Sustainable living can be attained when the state of the environment is considered first in all human activity. It makes us live within the carrying capacity of the environment in a symbiotic way. The economy is manned to the ecology in a continuous producer-provider basis. To operate at this level, the eco-system (its renewability) at all time.

### **2.0 OBJECTIVES**

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

- describe the relationship between learning experience and sustainable living
- explain how attitudes affect the quality and state of environmental resources.
- discuss the influence of environmental policy on alternative livelihoods.

### **3.0 MAIN CONTENT**

#### **3.1 Environmental Awareness for Sustainable Living**

One factor determinant of attitudes for sustainable living is the level of environmental awareness. To be environmentally aware is a function of learning experiences acquired by individuals. It is through education that learning can be acquired by individuals. When acquired, learning leads to a desirable change in behaviour, attitudes and disposition of the mind. Education helps people to be aware of the environment, its life-support systems, carrying capacity, and renewable potential, among others.

When people are environmentally aware, their attitudes and practices are more likely to be environmentally friendly and therefore able to cope with environmental change. Changes taking place in the living environment have made sustainable living a great challenge today.

People need to learn about the environment, learn in the environment, learn of the environment and learn for the environment. In this way they can more meaningfully produce for life and the economy and at the same time, conserve and protect nature and natural resources. Attitudes of people towards nature are dependent in large part on what they know. There are three educational processes through which our attitudes can be challenged and changed. Namely- formal, nonformal and informal education.

As people become more and more literate through schooling and learn more about the environment, waste management, pollution environmental conservation and sustainable development, they begin to behave more and more in environmentally friendly ways. In addition, exposure to organized learning experiences outside the school system can increase awareness about the living earth. Such awareness helps to condition the attitudes of the people towards being friends of the environment. As natural users of the environment also, people interact with the environment through observation, travel, at rest and at play, at work and through the mass media particularly through the Information Communication Technology (ICT)

Experiences gained by people through all these modes of learning help to modify their perception and attitudes towards environmental education. They tend rather to behave in a manner that helps to protect the integrity of the environment.

### **3.2 Motivate Attitude Change**

To change people's attitude towards sustainable living, we must look at where people live, work and play and motivate them on how they expend their leisure work to earn and how they live in the society. A number of other measures can be taken to motivate and reinforce attitude change for sustainable living.

1. Provide alternative coping mechanisms for life skills development in fragile environments and protected areas.
2. Provide and make accessible livelihood projects for poverty reduction especially feminized poverty and reduction of youth unemployment.
3. Reeducate people into our sustainable living and equip them to take necessary action to produce for income and protect to sustain the environment.
4. Equip people with skills for conversion of waste to wealth.
5. Innovation of the school curriculum at all levels of the school system is a key factor. Integrate environmental education into the school experience and through other interdisciplinary approaches.
6. Empower and support community and individual actions, which sustain the integrity of the environment.
7. Identify community training needs, develop work-plan to meet those needs and build and strengthen institutions to sustain the meeting of those needs.
8. Encourage the people to practice teamwork in the use of environmental resources around them. People learn and change their attitudes when they participate in sustainable living activities.
9. Plan and mount activities to encourage the local people on how to care for their environment as a treasure base.
10. Make information, financial and technical support available for sustainable living practices.

### **3.3 Policy for Sustainable Living**

We need to put in place national policy guidelines for sustainable living. An environment protection structure and network to link the national, state, provincial and local areas need to be put in place the existence of such a body must be assigned the task of mainstreaming environment into the sectoral ministries, establishments, agencies and departments to produce a characteristic total effect on sustainable living.

Advocacy programmes, capacity development and information sharing should be employed as weapons for changing attitudes in favour of

sustainable living. There should also be integrated national plans to promote sustainable living among people.

Essential also to note is the crucial need to reduce environmental conflicts and enhance decision-making in order to build a great and dynamic economy. It is the attitudes of the people that can help them to build a strong economic space for sustainable living.

There must be an ecological fund put in place and found working to protect the environment in such a manner that wins the support of the people. When this is found to secure the economic space of the people and enhance life-support systems, peoples inclinations and /attitudes would less likely be compromised.

Through attitude change people need to reduce resource waste and maintain acceptable levels of resource consumption which are sustainable.

### **SELF ASSESSMENT EXERCISE**

Explain how policy and decision-making can affect attitudes towards the living environment?

## **4.0 CONCLUSION**

Experience shows that the quality and state of the environment depend in large part on attitudes towards conservation of its natural resource base. It has become imperative to conserve the ecological life-support systems and biodiversity. The present and prevailing degree of pollution and dumping affronts the restoration and integrity of biodiversity both in open and protected areas.

In essence, the sustainable use of renewable resources and the ability to reduce depletion of non-renewable resources are a function of attitudes. It is a matter of attitude to be able to sustain the carrying capacity and integrity of ecosystems. It follows therefore that we need to regulate human impact, condition of the ecosystem as well as take steps to measure human actions and their environmental impacts. This will help reposition ourselves to handle our only one earth with care through proper attitudinal disposition.



## 5.0 SUMMARY

It is notable that the state of the environment is declining speedily. This change is occasioned by human activities, and their concomitant pressure on environmental resource base. Actions are a function of the mind and they are propelled by individual perception. When those actions conflict with the integrity of the eco-system, the very basis of human existence becomes compromised.

The level of knowledge possessed by people can help them change their attitudes and behaviours and act in ways that are less likely to compromise the carrying capacity of the earth. Three dimensions of education (formal, nonformal and informal) are presented here as the lodestars for attitudinal change for sustainable living.

However, attitudes when formed are difficult to change. Thus appropriate actions must be taken to motivate the right type of values and attitudes, which are needed to protect the living environment from its current state of continuous decline. The motivational techniques have been identified touching on individual and collective efforts, decision-making and policy as well as team play. We owe it to ourselves to respond to the new environmental age with requisite sensibility and attitudes for our common future.

## 6.0 TUTOR-MARKED ASSIGNMENT

1. In what ways do learning experience influence attitudes for sustainable use of environmental resources for living?
2. Why do we need to motivate people's attitudes for environmentally friendly practices?

## 7.0 REFERENCES/FURTHER READINGS

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## **UNIT 3 ENVIRONMENTAL EDUCATION FOR PEACE**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Reasons for Environmental Education
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

The core of the school system is the curriculum. However, from the curriculum perspective, which comprises the learning experiences taught in schools from the lower levels up to the University system, environmental education is struggling to emerge at the front burner as other subjects of the school programmes of learning.

Environmental concerns, issues and problems are raising audit alarm about the state of the environment and its integrity and resource base. Food security problems, resource depletion, and resources control, unabated pollution, social conflicts, population increases and poverty have signed deeply into the magma of global environmental concerns.

Environmental education is therefore emerging as a strategy for enhancing the integrity and quality of the living environment. Green literacy, environmental education and educology are inter-changeable concepts used to advocate the process of acquiring and transmitting environmental knowledge as an innovation of the school curriculum and programmes of nonformal education outside schooling. Knowledge, awareness, green ethics and attitudinal change, natural and rational use of ecological resource base and competence in environmental resource management cluster in the fist of educology. Many tangents are drawn from and cluster into this understanding. Thus, environmental education makes the school curriculum relevant to environmental concerns and makes environmental issues to become mainstreamed into the school curriculum. Its focus is to green the school curriculum and use the school curriculum to sustain ecological integrity, resource utilization and development. It examines the relationship, reciprocity and responsibility between humanity and the environment.

## **2.0 OBJECTIVES**

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

- demonstrate understanding of the meaning of environmental education
- give reasons to support green literacy as a strategy for peace
- plan strategies for educology in the community.

## **3.0 MAIN CONTENT**

### **3.1 Reasons for Environmental Education**

Improving quality of human life is an over-riding concern of practically all nations of the world and can serve as an index of good governance. At the individual level, people live to learn to earn and to improve their livelihoods. At the community and other social levels, people take necessary actions to steam up economic growth and advance the standard of living. Development policy must thus be based on sustainable environment to reduce poverty, support long and healthy life for all. To enjoy peace in the learning society, actions must be taken to secure life and property through conflict resolution and disaster management.

To this extent, educology is generic. It helps us to know, understand, analyze, synthesize, apply and appraise attitudes and behaviors, which lead to sustainable use of the living resources of the environment. Green literacy enables us to gain this awareness, express it as a concern and take actions to institute plans for environmental change and sustainable living.

Human beings are caretakers of the earth. This means in many ways that human relationship with the earth can be harmful or beneficial to their mutual living. In essence, human beings hold the key to environmental balance and are therefore responsible for the common future of the environment. Humanity must therefore protect the environment of the future by taking responsible actions today. This is where education helps to season the minds of people for conservation of nature.

Environmental education thus provides for human being a process of analytical thinking leading to attitude change, skill acquisition and action plans which help us gain understanding of the world around us, preserve, protect it from harmful abuses and redress existing environmental abuses by sustainable life-styles.

Environmental education provides human beings with knowledge which helps them respect and care for the community of life. As we saw in the previous module, such education helps us to develop green ethics for living sustainably; and guides us to mainstream sustainable thinking in all sectors of the economy; and through proper policy safeguard its breaches. Through this knowledge we know what can help or harm human survival.

Sensitivity to problems of the physical environment around us equips us with awareness about ecological life-support systems. The intrinsic beauty of the natural world, its inter-connectedness and the mutual exchanges that go on between the human and non-human world give us a sense of bewilderment and awe. The awareness that the earth is an eternal treasure is what environmental education advocates and takes plans to sustain.

Green literacy makes people environmentally friendly in their attitudes, behaviour and life-styles. In this way they learn skills for surviving in and sustaining the environment. It also equips us to work with others to reverse the current state of environmental decline through decisions and programmes which help to protect nature and natural resources. In this way it helps to ensure peaceful coexistence between humanity and the rest of nature.

### 3.2 Strategies for Environmental Education

Several strategies for environmental education can be identified. The choice of strategy is determined by whether or not the focus of environmental education is on formal education strategies, non-formal or informal approach.

- A. When focused on the formal education system the following strategies can be adopted?
  1. **Permeation:** This is a strategy whereby an inter-mix of learning experience or selected contents and didactic techniques and methods of instructional delivery are used to communicate environmental matters. It can be used in any school subject or discipline. Methods such as inquiry, expository, dialogic, can be used to teach and transmit curricular elements dealing with environmental responsibility, conservation, sustainable development and eco-tourism among others.
  2. **Interdisciplinary:** In this approach, plural interdisciplinary strategies are used by the instructor or facilitator through a carefully articulated style to articulate and overlap the subject

matter in a way which embraces educological issues. Sometimes this is also called polydisciplinary, multidisciplinary or transdisciplinary strategy. The learner hearing about the living environment from different angles begin to experience and express attitude change.

3. **Subject Matter Approach:** This is a strategy whereby the teacher or facilitator is trained and the learner is exposed to environmental education as a separate programme of specialization in the school curriculum. This can be at certificate, diploma or degree level.
  4. **Insertion Strategy:** In this strategy, the teacher skillfully inserts some selected learning experiences as lessons to be taught in the syllabus students are exposed to in their study. It is an indirect way of passing environmental messages to learners.
- B. Non-formal education strategies. These are strategies which can be applied in non-school settings to transmit environmental education messages to learners. They include.

### 1. **TRADITIONAL ENVIRONMENTAL KNOWLEDGE (TEK)**

This is a pervasive, conventional method evolved and devolved by people of a given community to deal with and learn about habitat and species protection in their environment. A greater attention has been given to TEK, elsewhere in this book.

### 2. **HUMAN SECURITY STRATEGY**

The attention of this strategy is given to identification of fragile and risky environments. In such settings, people are vulnerable and prone to environmental disasters and ecological risks including floods, droughts, hurricanes, hunger, epidemics etc. empowerment approaches are used to teach about risk reduction and response capacity of the affected areas and people. It equips people for humanitarian activities and environmental change.

### 3. **INNOVATION DIFFUSION**

This strategy helps the identification, transmission, adoption and adaptation of best practices around the world. It is principled upon the global thinking for local action and individual gain. Through it, we can manage knowledge for biodiversity conservation particularly in the

context of high uncertainty. In this way people acquire adaptive capacities for coping with environmental change.

### C. Informal Education Strategies

#### 1. PARTICIPATORY APPRAISAL

In this strategy we learn from, with the people about an existing environmental matter by moving in and conducting participatory analysis the problems and arriving at agreeable methods of solving the problems.

#### 2. SOCIAL MIXING APPROACH

Attendance at annual, seasonal events provides a strategy for sharing useful knowledge about the environment. Cultural events, guided travels, festivals are some examples.

#### 3. ECO-TOURISM

This strategy develops and shares informal environmental education through eco-tourism. This is promoted by visits to arch ecological sites, museums, botanical gardens, national park projects, wildlife sanctuaries, sites for special ecological, scientific or cultural interest, dump sites, hotels etc. through such activity, participants are able to gain knowledge about the environment and develop sensitivity towards the state of the environment.

### 4.0 CONCLUSION

Human environment interactions in our contemporary world, requires a fair and clear understanding of how behaviors and attitudes can help to sustain or destroy the natural base of our existence. Precisely, environmental education provides the hope for realizing that vision. A dual approach towards the school and non-school learning situations is critical for realizing that target, if we help people understand not only the causes of, but also coping with environmental change.

### 5.0 SUMMARY

We need to be reminded that, in this unit, the educational dimension of conservation for peace and development were the focus. Some concept clusters, clarifications and overlaps were carefully highlighted. We need not forget the concept, curriculum and context for environmental education. It is environmental education which serves as one of the

driving forces for desirable attitudinal change for conservation and development.

## **6.0 TUTOR-MARKED ASSIGNMENT**

1. Explain how environmental education can be used as an instrument of peace and development in your country.
2. Discuss three dimensions of environmental education for conservation and development.

## **7.0 REFERENCES/FURTHER READINGS**

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## **UNIT 4 COPING WITH ENVIRONMENTAL CHANGE**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Environmental Change in the Tropical Rainforests
  - 3.2 City Growth and Environmental Change
  - 3.3 Desertification and Environmental Change
  - 3.4 Climate Stability and Environmental Change
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **5.0 INTRODUCTION**

Research by scientists estimate that a minimum of 72 species are daily extinguished forever by human activity. This can be explained away largely to the increased destruction of forests where over half of the worlds species are found. These vanishing species produce in the main, environmental change, as a result of expanding human activity. Environmental change is a product of human activity.

Governments of the world are considering new negotiations on a forest convention. But that will take years to negotiate. Forests are the main basis of environmental change.

At Earth Summit in Rio in 1992, 157 countries signed the convention on Biological Diversity. The convention was designed to protect disappearing species and ecosystems. There were some commitments. The first was identification of where species are being annihilated. The next among others was to take necessary steps to ensure an end to the destruction of species. However, some governments allow and even aid in promoting environmental change through vanishing of forests and derailment of commitment.

The next focus if we were to protect the diversity of life and reduce environmental change is to protect indigenous peoples ancestral lands. These secluded groups of people in many of the world's forests make far better custodians of the environment than distant bureaucrats. When the rights of these peoples are secured, it would help them to be better able to effectively control environmental change.



There are indeed serious threats to species and ecosystems, which bring about environmental change. Thus, environmental rights need to be defended. To do this would mean that nations implement all conventions, which border on the environment, identify, monitor, assess and regulate all activities and development projects, which are not environmentally friendly.

## **2.0 OBJECTIVES**

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

- discuss the meaning of environmental change
- describe four factors which produce environmental change in the topics
- explain the relationship between urbanization and environmental change
- highlight ways in which desertification enhances environmental change
- plan an activity profile which can enhance awareness about climate change.

## **3.0 MAIN CONTENT**

### **3.1 Environmental Change in the Tropical Rainforests**

Threat to the last rainforests is creating a huge amount of environmental change. According to Earth Action (1996), less than 100 years ago, a dense band of undisturbed tropical rainforest spanned the width of central Africa, nearly from sea to sea. These vast jungles of Africa provided home to tribes who had no contact with the outside world. They were a harbour and haven for unique and exotic animals and plants. Giant trees thousands of years old were there. With the current level of environmental change, this has gone into history. Logging has taken its unprecedented toll on the forest resources of central or equatorial Africa, particularly the endemic zones, 5° North and South of the Equator. Foreign direct investment in the timber industry contributes to the daily decline of both timber and non-timber resources in the tropical rain forest zones.

### **3.2 City Growths and Environmental Change**

We are heading towards the end of the first decade in the 21<sup>st</sup> century. Look around. Over half of the world's population is living in cities. There are multiplied 2.3 mega-cities with over 10million people. Yet already, over a billion city dwellers of over 3 billion city dwellers are homeless. City growth goes with increasing pollution of the air, water

and land, municipal, domestic and industrial waste management is out of hand in many countries.

The world cities are growing by over a million people a week. Crises and crime are in excess for many a mega-city. In developing poor nations, particularly of Africa, 60 % of the urban population lives in abject poverty, in shanty towns, slums and overhead bridges and streets. Yet only 60% can boast of access to safe drinking water and even adequate access to sewage and sanitary systems. Nigeria, which can be studied as paradigm of Africa, shows that all the mega-cities are clogged with traffic.

Put nicely, the results are eventful. The number of children who die each year from drinking unclean water is the equivalent of a jumbo jet full of children crashing every two hours. Untreated sewage returns pollutants to lakes, lagoons, rivers and coastal water bodies. Health hazards draw their tempo from vehicular effluents. Industrial effluents add to the current levels of global warning.

Public transport system has crashed in practically all mega-cities of the world. We need to take urgent steps to address air pollution and congestion.

Housing is an inalienable right even in international law. There are large numbers of people who live in dangerous, threatened urban places. They need priority attention to improve their livelihoods.

Clean water sanitation and municipal waste management need to be provided by government. Sewage treatment needs to be improved; and strategies for waste reduction, recycling and re-use put in place. Then urban factor is a critical social issue in environmental change.

### **3.3 Desertification and Environmental Change**

An International Convention to Combat Desertification was signed at a meeting of top-level governmental officials in Paris, October 1994. Desertification is one of the most serious global environmental problems. Nearly one billion people are at risk due to fragility posed by the danger of their lands turning into deserts.

When we use the term desertification it does not connote the spreading of deserts but the creation of desert-like conditions which change the environment in dry-land areas. Dry lands constitute 36% of the Earth's land surface.

Desertification is created and accelerated by:

- Overgrazing
- Over cropping
- Bad irrigation
- Felling of trees
- Climatic variation
- Overall land degradation

With about 100 million people added to the world's population yearly, pressure on land leading to environmental change is quite inevitable. Some people are forced to become environmental refugees. Species endemic or native to the world's dry zones are disappearing.

Why is desertification a problem?

- There are 5, 200 million hectares of agriculturally used dry land in the world.
- Sixty-nine percent of the land is degraded or open to desertification
- In Africa, 73% of all agriculturally used dry lands are degraded. In Asia it is 70% and these figures are growing.
- There is urgent need for sustainable food security in the dry lands for people.
- Hunger, malnutrition and poverty take their toll on about 18 million people, mostly children each year.

**Map:** Drylands susceptible to desertification.

### **3.4 Climate Stability and Environmental Change**

Climate change is perhaps potentially the biggest threat to the future of the human race and the environment. The increasing scale of human activity on the planet is rapidly changing the atmosphere. There is huge burning of massive amounts of fossil fuels and destruction of our forests. This process leads to rises in global average temperatures and disruption of the earth's climate.

Some of the trouble accompanying the process is rising sea levels, threat to food crops, more severe floods, luminance's, drought, growing poverty, the spread of disease and a threat to the survival of multiplied millions of the world's species. The pumping of the gas called carbon dioxide (CO<sub>2</sub>) into the atmosphere through gas flaring, burning of fossil fuels such as coal and oil and the destruction of the world's forests add to the trouble of climate stability.

It is known that the combustion of fossil fuels and deforestation account for 74% of human caused emissions of “greenhouse effect gases”. That leads to global warning. To have a peaceful and stable climate, it has become imperative to phase out fossil fuels and preserve our forests. Energy conservation and a switch to renewable energy sources is needed to stop the global warning.

The 1992 Climate Changes Convention Signed by over 160 countries urged governments of the developed countries to commit themselves to reduce their emissions of greenhouse gases to 1990 levels by the year 2000. These developed countries were to cut further their emissions of greenhouse gases to 20% below 1990 levels by 2005.

#### **4.0 CONCLUSION**

There are behaviours to approbate and behaviours to deprecate for the sake of peace and sustainable development. As humans we hold the key to our inundation and annihilation. Human activity has caused us environmental change to the extent we can no longer be worried about our existence and survival without concern about the environmental change that is taking place not only in the cities but also in the natural environment of forest eco-systems. The consequence is the struggle for peace and ecological balance. We need to learn to live. This in itself means there is need for us to cope with the changing fortunes of the earth. Strategic attention and commitment are required for us to be able to care for the earth in order for the earth to be able to care for us with regard to coping with environmental change. We hold the key to this stimulus-response pattern of relationship in Africa’s timber business which goes with export and profit overseas.

The effect of this extractive process is almost like speed-post, measuring Africa against South America and Asia. The demand-driven exploitation of African timber for foreign market is both predatory and horrendous.

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## **UNIT 5      BIODIVERISTY      AND      ECOLOGICAL BALANCE**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Protection of Threatened Species and Varieties
  - 3.2 Protection of Biodiversity of Economic and Useful Value
  - 3.3 Ecosystems of Exceptional Diversity
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

The functioning of living resources and life-support systems rest on the preservation of genetic diversity including a wide range of genetic material found in the earth's organisms. The preservation of genetic diversity is both an investment and insurance in the sense that it enables us to continue to maintain, change. Much of the raw material for scientific, industrial and pharmaceutical innovation comes from this preservation. In fact, a lot of the protected and improved cultivated plants for aesthetic use in public and private settings including botanical gardens, domesticated animals and microorganisms are sourced from the available biodiversity. The protection of biodiversity and ecological balance therefore carries with it a moral obligation for humanity.

We would hardly talk about species extinction without human contribution to grave environmental change. Such adverse change cannot sustain ecological balance. However, it lies within our capacity as humans to have the power to change. So we must improve our limited knowledge of the environment about the life-support systems of the environment. From a futuristic perspective, we may get to a point where we discover that some species and life forms are vital to our existence in more ways than we now know. Their productive value to us as humans would be lost if they were no longer found.

### **2.0 OBJECTIVES**

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

- identify concentrations of genetic resources
- write short notes on three types of genetic resources

- discuss the economic and other values of biodiversity
- explain why ecological balance can help sustain peace.

### **3.0 MAIN CONTENT**

#### **3.1 Protection of Threatened Species and Varieties**

It is certain that species and ecosystems must be exploited for utilization by human beings. However, the current rates of exploitation are at a level that depletes the resource base and make it hardly possible for the living resources to gain recovery. Different ecosystems, which support it, are in constant conflict with human interests. Those competing interests are to a large extent in conflict with ecological balance.

Thus, it has become necessary to determine the productive capacities of species and their ecosystems so that exploitation and utilization does not exceed the carrying capacity.

Habitat destruction poses very great threat to plant species. As we go to the tropical rain forests, dry lands and islands, even to wetlands, freshwater and Mediterranean type ecosystems, the problem of threatened plant species stare us on the face.

Over-exploitation and habitat destruction also threaten animal species around the world ecosystems such as have earlier been named, and of course, including tropical dry and deciduous forests. This continuous unperturbed threat to plants and animals in the ecosystems distorts ecological harmony and balance. In the long run, the problem has an overlapping effect on the economies of nations and livelihoods of people.

#### **3.2 Protection of Biodiversity of Economic and Useful Value**

There are timber plants, crops, forage plants, livestock, microorganisms, wildlife and animals for aquaculture among others, which need to be protected. To protect them means to protect their site or habitat.

Their protection will enhance their continuing evolution from a wild gene pool. This wild gene pool is a common heritage for humanity. A lot of genetic material and wild species need to be protected. The success of such protection effort begins with first, being able to identify the varieties of species and sub-species which are most in need of habitat protection.

At the international level, priorities for trees have been proposed to cover more than 130 tree species identified for on site protection. The

FAO Panel of experts on forest Gene Resources conducted this identification in six regions. These are Africa, Australia, Canada, and Caribbean as Central America, EASTERN USA, and South East Asia.

Other areas such as aquatic animals, microorganisms, and livestock are yet to be covered. Though it is argued that microorganisms may hardly need on site protection.

We must state that the International Board for Plant Genetic Resources (IBPGR) has established priorities for crops and their on site protection. This will help us better understand pest and disease resistance for adaptation purposes. It is on the site protection that would help to enhance the crop continued ability to adapt to change in the population of the pathogens, which affect them. The understanding of these scenarios is vital to commit nations, organizations and individuals to protection of species, subspecies and materials, which are of economic and other values to mankind.

### **3.3 Ecosystems of Exceptional Diversity**

Sometimes, ecosystems of exceptional diversity are called ecosystems of mega-diversity. Terrestrial mega diversity include tropical rain forests, (such as the Okwango and Oban divisions of the Cross River National Park, in Nigeria, Peninsular Malaysia, Central and South America. Tropical dry forests are found in Madagascar, and the Mediterranean type ecosystems of South Africa and Western Australia). There are also very rich island systems including Caledonia and Hawaii Islands. The marine ecosystems of megaversity include the Western Pacific, North East Pacific, South East Pacific, North East Pacific, South East Pacific, South East and South West Atlantic ocean, the Red Sea, the Gulf Sea of Japan, China sea, the Gulf of California are others. Diverse fresh water ecosystems include the rivers of Amazonian, the rivers of West and Central Africa, the lakes of East and Central Africa, Lake Baikal in Russia, and the rivers of India.

### **4.0 CONCLUSION**

We have examined the pattern of distribution of biodiversity and the need to protect genetic resources stand out clearly. There is great need for us to enjoy a synergistic relationship with nature and its natural resources. With abundance and balance in resources in terms of their availability and ensured continued utilization, we can enjoy guaranteed peace in the environment. The maintenance of biodiversity and ecological balance is action that requires nations, states and the rest of the individuals to act in concert to ensure ecological harmony. There are

untold economic and other values we derive from biodiversity. We cannot afford to be denied or deprived of them.

## **5.0 SUMMARY**

Three main concentrations of genetic resources have been identified, presented and discussed in this unit. Their productive capacities have been detailed out. What we need however is to adopt biodiversity conservation management strategies which keep within the limits of the carrying capacity of the environment. We must maintain the habitats of resource species and limit incidental take as much as we can. We also need to equip and empower subsistence communities to utilize resources in a sustainable manner adequate to maintain protection standards. A limit of fuel wood consumption to sustainable level is required.

## **6.0 TUTOR-MARKED ASSIGNMENT**

1. Discuss with concrete examples the need for biodiversity and ecological balance
2. What is the economic importance of species and biodiversity?

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### **Module 3**

Unit 1	The Tripartite Environment
Unit 2	Environmental Pollution and Pollution Control
Unit 3	Waste Management for Peace
Unit 4	Coastal, (Fresh) Water Management and Sanitation
Unit 5	Forests, Farmlands and Human Settlements

## **UNIT 1 THE TRIPARTITE ENVIRONMENT**

### **CONTENTS**

1.0	Introduction
2.0	Objectives
3.0	Main Content
3.1	The Tripartite Environment
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Readings

### **1.0 INTRODUCTION**

The concept 'environment' can be perceived from many angles. Such perception can give birth to several competing definitions and descriptions. Broadly however and in the context of this book the term refers to what we see and find as land, water and air (LAW). It is an embodiment of the entire stock of plants, animals and human beings and indeed the complex ecosystems and life forms between and among these. The environment is the earth and all its fullness – the physical features, its structure and crust, space and time as well as culture that also produces the built-up environment and human development agenda.

The environment is the living earth-the only place where life is known to be found and sustained. It is here that humans exert extensive influence and control over the forces of nature. The living environment is an embodiment of solid, liquid and gas, sound, vibration, radiation, heat and their combination in varying degrees to influence the growth and development of organisms. It is in fact an all-embracing life-support system. The minerals in the bowels of the earth and the mountains, hills, valleys, rocks, forests and woodlands and the fluffy and scenery vegetation cover. The economic and cultural space formed by humans also constitutes part of the total environment.

## **2.0 OBJECTIVES**

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

- identify the three components of the cosmic and living environment
- discuss the relationship among the components of the environment.

## **3.0 MAIN CONTENT**

### **3.1 The Tripartite Environment**

The biosphere is referred to as the tripartite environment. The biosphere or tripartite environment constitutes the ecosystems of the world. We find in it the natural existence of living organisms and non-living substances in a state of constant interaction. It is in the biosphere that material life is found. The biosphere is like a global girdle, which joins the lithosphere, the atmosphere and the hydrosphere together.

The biosphere covers downwards to nearly 10,000 meters below sea level and 60,000 meters above sea level. It is the supply of resources of air, water and land that make life possible in the biosphere. There are two main resource components in the biosphere-biotic and abiotic component.

#### **The Biotic Resources**

This is made up of Flora (plants) and Fauna (animals), which coexist, in mutual interaction. We as humans also form part of the biotic environment, which can also be called the ecosphere.

#### **The Abiotic Resources**

The abiotic component is the physical, non-life, and chemical part of the living environment. It forms the material base for living organisms or the biotic, environment. Energy sources, soil, water, minerals and air are units of the abiotic environmental resources.

#### **The Lithosphere**

The soil system and mantle of rocks constitute the lithosphere. This is a life-support base.

#### **The Hydrosphere**

The hydrosphere is the water-sphere in the ecosystem. Surface and underground water (including the one locked in rock crevices), glaciers in the polar regions, lakes, springs, streams, rivers, seas, oceans, atmospheric water vapor and rain are part of the hydrosphere. The hydrosphere may also be called the blue planet.

### **The Atmosphere**

The atmosphere is a layer of gases surrounding the earth and held by the force of gravity. The gases are held in a stable state. The gases are majorly nitrogen, oxygen, argon, carbon dioxide, ozone and of course, water vapor. There are other gases, which occur in small proportion, in the atmosphere. They include helium, methane, and krypton among others.

Concentration of oxygen, carbon dioxide and nitrogen is near the earth surface. Water vapor is produced by evapo-transpiration from the earth and conveyed up by turbulence up to about 10km. In arid zones and some other areas the water vapor can remain close to zero at some time. In the more humid areas, atmospheric water vapor can be as high as over 3 per cent.

At 10-12km above the earth surface, atmospheric water vapor is at zero level. At 15 to 35km we find the atmospheric ozone layer. This filters radiation from the sun before it hits the earth surface. As we move further away from the equator, the ozone content in the atmosphere increases. Ultra-violet radiation breaks up oxygen molecules and the separate atoms produced combine with other molecules of oxygen to form ozone (O<sub>3</sub>). Ozone is an instable gas in the sense that it can be destroyed by radiation and, or when it collides with monatomic oxygen (O) it recreates oxygen.

### **Structure of the Atmosphere**

The atmosphere has five layers, three (troposphere, stratosphere and mesosphere) warm and near the earth's surface and two (thermosphere and exosphere) cold and distant from the surface of the earth. Altogether, the atmosphere constitutes the warm blanket of the earth.

## **4.0 CONCLUSION**

There is growing concern in the world about global warming, climate change, ozone depletion, pollution, waste management, poverty, resource depletion, greenhouse gases and others. What happens to the biosphere is a product of what happens to the tripartite environment comprising the land, air and water. Human beings are agents-indeed the greatest agents-of environmental change. We hold the key to the earth's inundation and annihilation; and the key to its harmonious balance.

The tripartite environment constitutes the only one earth. We need to protect it as the haven of life for all humanity.

## **5.0 SUMMARY**

The environment has a structure made up of components. Those constituent parts of the environment have been identified and presented in this unit. A thorough understanding of those components is required to enable us take measures to maintain balance its productive nature.

## **6.0 TUTOR-MARKED ASSIGNMENT**

Identify the major components of the environment. How do those components relate among themselves?

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## **UNIT 2 ENVIRONMENTAL POLLUTION AND POLLUTION CONTROL**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Air Pollution
  - 3.2 Global Warming and Climate Change
  - 3.3 Water Pollution
  - 3.4 Pollution Affecting the Land
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

## **1.0 INTRODUCTION**

Human beings are natural users of energy and environmental resources. In the process, unintended consequences follow such as an unhealthy alteration of the harmonious features of the living environment. Pollution is one such product of human activities, which leads to the alteration of characteristics of the natural environment. Pollution is one such product of human activities, which leads to the alteration of characteristics of the natural environment. Human activity can lead to the use of resources and the conversion of energy from one state to another. This process may produce some contaminants and disturbance of environmental harmony, and diminish the value of its well-being and carrying capacity.

Pollution causes an undesirable change in the biosphere. Thus, the air, land and water bodies may experience a change due to and arising from a modification of their biochemical composition. This change may in turn be injurious to human life and the life of other life forms and natural processes and patterns of social arrangements. This means that pollution contaminates a wide range of environmental components. Let us look at that next.

## **2.0 OBJECTIVES**

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

- define the meaning of environmental pollution in your own clear way
- examine the increasing nature of air pollution in the environment
- explain the concept and process of global warming to a small local audience
- discuss why we need to check the pollution of water bodies
- point out how pollution affects land and land use practices.

## **3.0 MAIN CONTENT**

### **3.1 Air Pollution**

There is increase in air and atmosphere pollution in our country today. The incidence of air pollution is also witnessing a phenomenal rise. We observe pollutants of immense level including toxic gaseous, waste substances of nitrous oxide, sulphur, methane, carbon dioxide and lead. Effluents from vehicular emissions due fossil fuel biomass and domestic fires together with agricultural bush burning take their toll in contaminating air quality surrounding us. This makes the environment to become acidified with other accompanying problems.

Expansion in industrial activities carry with it fumes, vapors smokes, mist, odour and dust. Despite the liquefied natural gas (LNG) project in Nigeria, the country still flares about 40% of its natural gas arising from non-environmental petroleum activities. All these airborne substances deteriorate the state of the environment and overtime has created a lot of restiveness particularly so in South-South Nigeria.

Harmfully accompanying this situation is the precipitation of acid rain on soil penology, corrosion of corrugated roofs of houses and debilitating scorching of vegetation and water resource. This means that the enjoyment of human and animal life and property is compromised with injury and harm such as bronchitis, asthma, silicosis, lung cancer and other respiratory diseases. Eye, skin and nose irritation are some other effects.

### **3.2 Global Warming and Climate Change**

When there is a long-term change in the average temperature of the earth, it is called global warming. This leads to climate change. Thus, temperature is a strong determinant of climate change. Though precipitation and cloud cover are other elements of climate, they are less striking in producing climate change.

Greenhouse gas emissions from human activities are causing the earth to become warmer. The greenhouse effect is caused by concentration of carbon dioxide in the atmosphere. Water vapor, chlorofluorocarbons (CFCS) methane, ozone (O<sub>3</sub>) and nitrous oxides in their natural and artificial forms combine to produce the greenhouse gas trap. Resultantly, some gases which are radiated back from the earth do not escape into space. They therefore increase global temperatures and cause grave effects on the natural environment and society. This is a source of concern to humanity.

Expectedly, climate change leads to vagrant climatic patterns. Definitely, there would be sudden rise in sea level, which could lead to inundation. For instance a mere one meter rise in sea level can affect over 18,000 square kilometers of low lying coastal areas. According to the world meteorological organization that would mean over 3.8 million people could be adversely affected if that occurs in say Nigeria.

Other consequences of climate change are droughts and a process called desertification. Untold disasters would be experienced; erosion menace and biodiversity loss would be on increase. The launching of Nigeria's satellite communication (SAT 1) is one response to this challenge of monitoring climate for agricultural and other purposes

### **3.3 Water Pollution**

The vitality of water remains majorly in its quality. Nobody makes enemy with water, nor can nations. Its value transcends individual, domestic, processing, manufacturing, agricultural and industrial uses. It is a major means of transportation right from early times. It is a requirement for survival by plants and animals. It constitutes over 75 per cent of the human cells. Hydroelectric power for development derives from water.

Two-thirds of the earth surface is covered by water. then, why do we experience water problems? One reason is due to water pollution. In Africa, the problem is still a huge one for many countries. For instance, in Nigeria, a lot of effort and support from the World Bank and the African Development Bank in this area still leaves much to be desired.

The unsustainable waste management and dumping from individual, domestic, municipal and industrial activities add up to water pollution. Heavy chemical effluents such as dyes, cadmium, mercury and so on affect the color and quality of water. Petroleum and oil spillage, oxides of nitrogen, sulphur and carbon emptied into water, pollute ground water and underground water, streams, lakes, rivers and lagoons. Practices at domestic, municipal and industrial levels lead to pollution of waterways and water bodies. This in turn produces a host of environmental health and sanitation problems. In addition, there is poor sewage management. The consequence is degradation of the quality of ground and surface water. Outbreak of epidemics like cholera, guinea worm, tuberculosis, diarrhea, measles, dysentery occur in a long list of others. All these are preventable diseases with proper water and sanitation management. They aggravate the biting condition of poverty.

### **3.4 Pollution Affecting the Land**

A lot has happened to change the chemical, biotic and resource composition of land. Land, which remains our eternal priceless resource base, has been heavily affected by environmental pollution. The resultant effect is one of general degradation. Land denudation, soil erosion, impoverishment of land and its declining productivity are all imminent remainders of land misuse due in part to pollution.

Indiscriminate dumping of garbage, human waste, and other solid wastes as well as chemical bio-products are all too well familiar with us. Inadequate, unavailable and indecent incineration practices are prevalent around us.



Toxic chemical and radioactive waste dump on land can render the sites to become wastelands and impoverish the productive nature of land. Side by side with this terrible menace is oil spillage, which has been proved to render large land mass derelict for years before difficult and expensive restoration begins.

In addition, slash and burn cultivation (bush-burning) practices has epitomized in agricultural wasteland and soil fertility decline in countries, especially in Nigeria. Moreover, the practice has led to soil erosion and soil loss, devegetation, population migration, widespread famine and annihilation of species that are endemic to certain regions and thus occasioned the loss of human lives.

#### **4.0 CONCLUSION**

There are several socio-economic opportunities, which the living environment can provide. These are mainly derived from the natural resource base, namely:

- Biotic resources such as medicinal plants, wildlife and genetic resources
- Fresh water resources example of which includes fisheries and marine development
- Solid minerals such as uranium, cobalt, gold, bauxite, limestone, copper, iron and steel etc.
- Energy resources. This include crude oil, gas, coal, solar, wind and hydro-electric power
- Eco-Tourism and nature watch
- Agricultural land, which is used for arable farming in, say all the ecological zones in Nigeria.

When we consider metaphase development in earlier modules, we realize that man could touch all these eco-systems in positive or negative ways. Pollution control is essential for maintaining a balance in the ecosystem. For all the above named productive resources to meet the sustainable livelihoods of people and propel development in more ways than known, we need to reduce the impact of pollution on the environment. This way, we can ably prepare to face the challenges and meet the opportunities of the future.

#### **5.0 SUMMARY**

When we say “the polluter pays”, it may work to some extent in respect of industries; but difficult for all other contributors to pollution at domestic, municipal and global levels. The enormity of the pollution problem has been highlighted in this unit.

Pollution affects both biotic and abiotic environment including the air, land and water and also contributes to climate change. To this extent, an environmental socio-economic impact assessment is required at personal and manufacturing, industrial productive levels in order to bring pollution to check in all that we do.

## **6.0 TUTOR-MARKED ASSIGNMENT**

1. Discuss with specific examples why you consider pollution to be a major global problem.
2. What is the relationship between the concept of pollution and that of climate change?

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## **UNIT 3 WASTE MANAGEMENT FOR PEACE**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Types of Waste
  - 3.2 Categories of Waste Generation
  - 3.3 Waste Management Practices
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

In Nigeria 1991, the National Environmental Protection (Pollution Abatement in Industries and Facilities Generating Wastes) Regulation was promulgated. Other nations either have such regulations already existing or plan to officially do so. Such regulations prohibit the unlawful handling of toxic waste discharged from all categories of industrial processes, and their products and by-products. Drains, water bodies, landfills are some systems of our environment, which are attenuated with industrial solid waste discharges and effluents. Accordingly, industries, which generate wastes, are expected to install pollution monitoring, control and regulatory instruments and devices. This is to ensure that regular reports on the state of the industry particularly of intended and accidental discharge of solid, liquid and gaseous waste are produced.

The protection of our natural environment in part depends on effluent limitation. We must set and maintain permissible wastewater parameters for certain types of industries and ensure that parameters are put on various industries, while imposing duties on them and installing anti-pollution equipment. Ensuring their compliance is another serious matter that must be considered.

## **2.0 OBJECTIVES**

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

- express in clear terms how waste constitutes environmental problem in the society
- identify and differentiate types of waste in the environment
- make a classification of waste categories and explain them
- demonstrate clearly, how wastes can be managed.

## **3.0 MAIN CONTENT**

### **3.1 Types of Waste**

Waste is generated and is found in many forms. Three main forms or types of waste can be identified.

Solid Waste

Liquid Waste

Gaseous Waste

Solid waste includes things like rubbish, used bottles, cans, paper, polythene, wood cutting, excavations, residues, broken down machines, glass ware, sand fills, vehicles, tyres, by-products from chemical industrial processes and decaying matter. Liquid waste is found in the form of dyes, jelly, tar, wastewater, chemical liquids, sewage, drain-offs, oil in navigable waters, wash-offs from domestic and industrial

processes. Others are oils, spill-offs, over-flows from say, dam construction and flood impact.

The third type is gaseous waste. It includes fumes, smog, smokes, gas flaring, dust, vapors, and other harmful emissions and chemical sprays.

### **3.2 Categories of Waste Generation**

Waste can be classified into three categories, namely:

Domestic waste  
Municipal waste  
Industrial waste

Each of those categories has its various levels of contribution to environmental pollution. As people stay at home and utilize resources for food, rest, play and relaxation they generate huge amounts of waste. There is also heavy level of human movement in the villages, towns and cities. As people transport and move with their property from one place to another, they leave behind, a trail of waste on the streets, markets, ad dump stands, etc.

We also find a huge level of industrial activities around us. There are several of various cottage industries, small scale, medium level enterprises and large industries producing goods and services. As they produce their commodities, move, store and market them, the packages, handling process and several forms of discharges and releases tend to generate a large stock of waste in the livable communities roads and navigable waters.

To all these, there must be a sustainable waste management response to enable people live in peace. Apart from disturbance of individual and public peace, waste can be harmful to health and cause a lot of discomfort to life. The prevalence of toxic waste is risky to life form and disastrous to human life. Thus, waste is a serious environmental concern in urban and rural areas within and among countries of the world.

### **3.3 Waste Management Practices**

Development of rural areas, peri-urban settlements, urban areas, cities and mega-cities implies the need for adequate and effective waste management practices. Waste management involves, the control of waste generation, movement, reduction and conversion and disposal. There are several ways these can be and has been done in countries of the world. A number of strategies can be identified.

- Through appropriate statutory instruments of legislation.

- Establishment of the Ministry of Environment and other environmental Protection agencies.
- Waste management companies
- Planting of dump stands at locations to contain small wastes
- Public environmental education and awareness creation
- Setting up of landfills and dumpsites
- Proper use of incineration methods
- Waste conversion through waste:
  - Reduction
  - Re –use
  - Recycling techniques

#### **4.0 CONCLUSION**

Environmental crisis is a function of many factors. Waste generation is a major one. The way we treat the environment is the way the environment will treat us in response. To enjoy peace, tranquility and indeed well-being, we require an attitudinal shift in terms of how we generate and manage waste in the society. The health of the people is the wealth of the people. Waste constitutes an environmental health problem in addition to other menacing impact it has on land, water and atmosphere. The future of the environment lies with us. Its well being is also a function of our attitudes towards the environment. As we contemplate peace and order in the environment, we must understand the role we need to play in order to regulate our activities in the environment. Failure to pay attention to the mounting waste dumps and their management problems would mean failure to cater for the future well being of the environment in which are live. This would also mean invisible multiple traps on our sustainable development effort.

#### **5.0 SUMMARY**

Attempts have been made to give focus to waste as a major environmental concern that needs to be tackled headlong. We showed that waste could be classified into three categories. The various ways by which waste is generated are presented and the strategies for waste control and management are also highlighted.

Thus, it takes the collective efforts of all to include the problem of waste in our environment so that the very basis of our life support does not turn out to be a harmful place for our lives.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

What are the types of waste in the society? Discuss the strategies for waste management?

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## UNIT 4 COASTAL FRESH WATER MANAGEMENT AND SANITATION

### CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Coastal and Fresh Water Resources
  - 3.2 Critical Actions for Achieving the Water and Sanitation Target (#10) in the MDGS
  - 3.3 Some Water and Sanitation Agencies
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

## **1.0 INTRODUCTION**

Water and sanitation are vital keys to sustainable environmental development and peace. We cannot over-emphasize the essential value of water and sanitation to human development and indeed other dimensions of life. Water is a life-support element. It is also an element, which supports security of the environment, peace and food security. The essential values of water and sanitation are captured in the United Nations Declaration of the Millennium Development Goals (MDGS). Thus, the UN targeted that by 2015; people everywhere shall have access to drinking water and basic sanitation (UN, 2000). This is particularly so because water and sanitation are a major challenge for the developing countries. This is unlike the developed nations most of which achieved nearly 100 percent access to water and sanitation decades before the end of the last century.

## **2.0 OBJECTIVES**

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

- explain the role of water and sanitation in promoting peace and sustainable development
- specify the value of coastal and freshwater resources to sustainable development
- examine the critical actions for achieving water and sanitation target
- identify the water and sanitation agencies for meeting set target.

## **3.0 MAIN CONTENT**

### **3.1 Coastal and Fresh Water Resources**

Proper management of coastal ecosystems is one vital strategy for environmental security and peace. In Nigeria for instance the coastline is characterized by the prevalence of estuaries, peninsular and mangrove swamps. Along the coastline is found a habitat refuge, shelter and food for fishes and waterfowls as well as mollusk and crustaceans. It is a haven and breeding ground for shrimps and other vital fish species.

In some parts of the world, coastal wetlands and coral reefs are indeed a guarantee of coastal protection. The activities of corals sustain the building of islands. Their fresh water, floodplains and wetlands support to some level, inland fisheries. They also supply nutrients by floodwater to support agriculture.

Their resource base is being destroyed the world over with wanton abandon. The situation produces dire consequences on the economic lives of those who depend more on them for their livelihoods. A threat is also posed to the habitat of aquatic animals thus placing them at great risk of survival. Other attenuating effects are agricultural and industrial pollution via effluents, siltation arising from upland erosive agents; and of course dredging to deepen, improve or even create new harbors. There is pervasive logging of the mangrove for fuel wood; and commercial gurgling. These activities expose marine life species and place the spawning areas and nurseries at great threat. Thus an imbalance in the freshwater ecosystem yields a corresponding security problem to us who are natural users and consumers of seafood and marine life.

### **3.2 Critical Actions for Achieving the Water and Sanitation Target (#10) in the MDGS**

The following strategies can be articulated for a plan to achieve the MDG of water and sanitation target.

- *Public Private Partnership* is required. Government civil society and other agencies, which are stakeholders, must be decisive in making sanitation crisis a topical item in their agenda and programmes for implementation and based on appropriate technologies compatible with the environment.
- *There should be Equity* in the responsiveness to different catchment groups of water users. Institutions and policies must change in this direction. Fresh water resource management and development as well as water supply especially to the rural areas and sanitation services must meet the needs and priorities of men, women, children and other disadvantaged groups in the society.
- Deliberate effort must be made to encourage heavy investment in and reform of improved water supply and sanitation management. This means that both construction of facilities and service delivery in the area must both be seen as vital.
- Institutional Strengthening and Capacity-building to be focused at the Local Level. Such a focus should be on the empowerment of local government councils with sensitivity required to manage water supply and sanitation services. Donor agencies and other higher layers of government need to stimulate this sensitivity.
- Effort must be made to make fresh water available and accessible. This means that, the poor on account of their poverty



should not be denied access to water. However, those who are luxury users of water and those who can afford to pay should be made to pay for water consumption.

- The MDG, the National Economic Empowerment Development Strategy (NEEDS) and States Economic Empowerment and Development Strategy (SEEDS) in Nigeria and other such coordinated efforts must be properly harnessed for water and sanitation management. In doing this, innovations must be injected to make it relevant to local conditions.
- *Some Water and Sanitation Agencies.* Several agencies play a part in the sharing of information and knowledge on water and sanitation; particularly so in the developing countries. Agencies such as UNICEF, WHO, UNDP, HABITAT are of international relevance in this area of advocacy and knowledge sharing in water and sanitation. Let us examine in some detail some other programmes, partnerships and networks in the world.
- *The Global Water Partnership (GWP).* This is a global multi-stakeholder agency, which gives support to developing countries in improvement of sustainable development as well as the management of water resources in those countries. It stresses Integrated Water Resources Management. It was established by the World Bank and supported by the UNDP the Swedish International Development Agency and other donor agencies. It is based in Stockholm from where it operates as a network of global partnership.
- *The Water and Sanitation Programme (WSP).* Leading development agencies formed this international partnership. Their impulse was to improve sectoral policies, capacities and practices, which reduce poverty through gainful access of the poor to water and sanitation services in the livable communities. The World Bank administers this programme. The WSP is active in advocacy and translation of guidelines into improved and innovative programmes. It gives focused support to national, states and local government and communities in this respect.
- *Water Supply and Sanitation Collaborative Council.* This council was formed in order to increase the attainment of sustainable water, sanitation and water management services to all shades of people. In doing this, special attention is given to the unserved poor. It collaborates with developing countries and external partner agencies to mount and promote concerted action programmes. With secretariat in Geneva, the Council links

members between particular regions in order to extend and deepen its contact with people.

- *The World Water Council.* This council engenders political commitment and awareness regarding serious water issues, problems and concerns. Through the Council's World Water Forum it is able to bring stakeholders from around the world for solving problems, which bother in water security. It produces both electronic and print newsletters developed by water and sanitation groups such as SOURCE Water and Sanitation Weekly and the WHO Newsletter on Water.

#### **4.0 CONCLUSION**

Both coastal and freshwater ecosystems and indeed water and sanitation management are crucial for peace and sustainable development. For the developing countries, this is a major challenge. Institutions and agencies have been established within and among nations to respond to this challenge. The task however remains that we tackle the challenge of strengthening the existing agencies, creating new ones and showing real commitment to achieving the target. This way, success can be guaranteed.

#### **5.0 SUMMARY**

We have seen clearly that the water challenge is indeed a mounting one, particularly so, in the developing countries. The coastal regions, wetlands and fresh waters are critical concerns in the water problems of nations. Action plans and other water management strategies have been put in place in problem regions. The United Nations through the Millennium Development Goals (MDG) has set a target for its achievement. Sanitation agencies also abound. All these are designed to tackle the problem and enhance peace where people need water for a lot of livelihood activities and in fact, for life itself.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

1.
  - (a) Discuss carefully the problems associated with coastal and fresh water management.
  - (b) Offer sustainable management approaches to those problems.
2. What are the critical actions that can be taken to achieve water and sanitation target in your community.

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## **UNIT 5      FOREST, FARMLANDS AND HUMAN SETTLEMENTS**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Type of Forests and Settlements
  - 3.2 Farmlands and Agriculture
  - 3.3 Human Settlements
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

Forest cover in the world, including shrub lands and wooded grassland are of vital importance to humankind. The forest ecosystems consist basically of trees, soils, waters, animals, microorganisms and other plants as well as human such as indigenous people. The forest ecosystem is constantly being challenged chiefly by human activity.

The need for survival, the applications of science and technology, the quest for knowledge through information communication technology and the desire to relate with nature have tended to influence and change the nature and range of forests around us. Further deepening the change is the transformation of the forests into farmlands and settlements.

## **2.0 OBJECTIVES**

During and at the end of studying this unit, you should be able to:

- identify the role of human beings in transformation of the forest ecosystems
- explain how agricultural practices and technological factors influence forests transformation
- present the various ways by which human settlements influence pattern of forest ecosystems.

## **3.0 MAIN CONTENT**

### **3.1 Type of Forests and Settlements**

A range of forests and woodlands can be identified. They include those in tidal and sub alpine areas as well as the tropical and sub arctic forests.

These forests have a variety of forms.

Broadleaved  
Coniferous  
Deciduous, and  
Evergreen

Some of these forms are closed canopy forests and others are woodland, and may either be wet or dry. With their changing nature and feature some of the forests are massive such as the tropical rainforest. In their

different gradations and combinations, the forests around us may be cultivated for agricultural purposes or inhabited by human beings. In this way they serve both as life-support systems and habitats for even man. Indigenous people and aborigines live their life within enclaves of the forests.

In Brazil and Nigeria, tourists are attracted to forest dwellers to observe the characteristics of people living very close to the state of nature. They are a culture milieu of deep interest to watch.

### **3.2 Farmlands and Agriculture**

Farmlands have become widespread in contemporary time largely due to agricultural practices. The growth in agriculture for livelihood, to sustain teeming populations in rural and urban areas and to meet the need of industry has led to increased state of demand for farmlands.

The existing farmlands occur in forms used for

- Subsistence agriculture
- Community and social forestry
- Plantation agriculture
- Commercial farming
- Government acquired land.

Subsistence agriculture is the prevalent type of farming in the developing countries such as Nigeria. To a large extent, it is labor intensive and a lot of people are engaged in it. Cultivation of food crops and cash crops is a common practice in much of Africa. Through it, livelihood is supported and sustained.

However, the priceless value of farmlands and the rising populations competing for space have produced in their wake, some attenuating boundary problems, communal clashes and some other disputes particularly during planting seasons. Cropland, grazing land for pasture and plantation fish and livestock production in their various ways when improperly managed can precipitate unimaginable cases of conflict.

In Africa, small household ownership of land, land tenure system and shifting cultivation added to the difficulty of practicing mechanized agriculture, have tended to pose trouble for farm management practices in the continent. This situation also contributes to the depletion of forest reserves and resources; and poses danger to biodiversity conservation.

### **3.3 Human Settlement**

Besides farmlands and other forms of activity in the forests, the connection between forest cover and human settlement remains strong

and has continued unabated. There is high demand for space and land for productive purpose ranks chiefly in the struggle for human settlement and construction purposes. Human settlement evolves from the need for people to dwell together in society.

All over the world, we find homesteads, villages in clusters to form villages where people dwell. The rural areas of the world are made up of several such villages. Even though most of the world population is found in the rural areas, city growth is on the rise and there is an ascendance of population drift from rural to the urban areas. The disturbing result is that both labor market and access to land are shrinking in the rural areas. The urban areas in turn face overcrowding and shortage of bright and full opportunities including social service provisions.

It can thus be predicted on the basis of increasing rural-urban migration that about half of the world population would be found in cities by the end of this century. There are more mega-cities in the developing countries than in the advanced countries. Such cities have over five million dwellers. We must be quick to add that whilst there are measures to control the growth of metropolitan areas in the advanced nations, the rate of urbanization in the countryside is on the rise.

Community development, innovation diffusion, agricultural revolution service enterprises and provision of rural infrastructure explain the reason for this phenomenon in developing countries.

Rural settlements are a multi-mix of linear, scattered nucleated or sparse in nature. Much of the difference between them and the cities is not so much in terms of provision of amenities for basic living but in terms of populace. Cities are the main driving engines of development, wealth creation, job market, life opportunities and multiculturalism. They are also centers of high consumption of resources. Thus, the cities impact very greatly on the living environment and exert corresponding pressure on rural life from where much of the foodstuff and raw materials is supplied.

To network the urban and rural areas, there must be adequate provision of a system of sound transportation. This is to ease the conveying of goods, services and people within and between settlements. But the cities also have their own accompanying problems. Congestion, pollution, epidemics and other hazards of city life bring with them discomfort. There are a lot of highways without an easy way for movement.

There is a great propensity for waste generation and build-up as well as increasing poverty for most of the urban slum dwellers in low-income countries. Street dwellers, beggars, crime wave and suffering for the disabled, aged and weak are on the increase. Water supply and sanitation are poor. All these owe much to the systemic failure of official government policy and implementation of development goals. There is also the problem of attitudes of people to live in a sustainable way.

#### **4.0 CONCLUSION**

Certain factors account for human settlements. Chief among them is support for sustainable living. The ability to produce food, goods and other services for human consumption is an expression of this human support. Human capabilities must be identified and harnessed for sustainable shelter in the world. Settlements are changing fast; consequently, approaches, which are proactive need to be designed to forestall the consequence of environmental change.

#### **5.0 SUMMARY**

Forest, farmlands and human settlements are evidently places we cannot ignore in development planning. Abuse of these areas cannot be accepted in civilized settings. The relationship, which we enjoy as humans in respect of forest, farmlands and human settlements, their development, associated problems and the way forward have been the highlight of this unit.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

How do forests, farmlands and human settlements differ and how do they relate.

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**MODULE 4**

- Unit 1 Rural/Urban Sustainability for Peace
- Unit 2 Environmental Causes of Conflict and Their Resolution
- Unit 3 Ecological Economics and the Millennium Development Goals
- Unit 4 Development and Underdevelopment; The Human Security Issues
- Unit 5 Inter-dependence and Distributive (In-Justice and Peace)

**UNIT 1 RURAL AND URBAN SUSTAINABILITY FOR PEACE****CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Nature of the Rural Environment
  - 3.2 Characteristics of Urban Environment
  - 3.3 Strategies for Environmental Peace and Sustainability
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

**1.0 INTRODUCTION**

One simple way to understand social change is to examine the evolution of rural and urban areas and their growth trend. From such a prism, some interesting scenarios can be identified for careful study. In both developed and developing countries with corresponding high and low income, there exist some features of urban life as opposed to life in the rural areas.

Those features, which make life seemingly different in both areas, are what we shall attempt to identify and present in this unit. However, in doing so, it is vital to show how those characteristics relate among themselves and their implications for communal peace and sustainable development.

## **2.0 OBJECTIVES**

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

- differentiate between rural and urban life
- examine the specific characteristics of the rural environment
- identify the features, which make the urban area an environmental concern
- develop strategies that can be used to tackle ecological problems in habitable areas.

## **3.0 MAIN CONTENT**

### **3.1 Nature of the Rural Environment**

The nature or features of rural environment can be looked at from two perspectives; namely:

- The core or universal nature, and
- The residual – peculiar nature

#### **THE CORE OR UNIVERSAL FEATURES**

- i) The rural areas are transitional. This means they are in a continuous state of change to embrace the forces of modernization.
- ii) Rural areas are basically agricultural and fishing communities.
- iii) There is often a resistance to change traditional patterns and culture of life.
- iv) Rural areas are basically isolated with low population density.

#### **THE PERCULIAR CHARACTERISTICS**

There are residual features of rural life, which are largely common in the low-income countries. These are:

- i) The population profile is made up of the very young and the very old.
- ii) There is high level of ignorance and low formal education and basic literacy.
- iii) Material poverty is one chief feature of the rural areas; income is low.
- iv) Roads communication and rural infrastructures are inadequate or lacking.
- v) Basically subsistence farming is pervasive.

- vi) There is high level of organic solidarity and communal ties among inhabitants. This also includes collective social insurance.

### **3.2 Characteristics of Urban Life**

The chief features of urban life are:

- i) Luxury, extravagance and wasteful consumption of resources.
- ii) There is crowd mentality, yet growing isolation of people. Life is highly individualized.
- iii) There is high crime rate, violence and drugs.
- iv) There is high incidence of noise and environmental pollution.
- v) In most developing countries, waste management is a daily problem.
- vi) There is high city growth, industrialization and corporate living.
- vii) It is a place where knowledge and social relations rule and guide life.

### **3.3 Strategies for Environmental Peace and Sustainability**

To reduce the mismatch between the rural and urban areas is a Herculean problem. However, that problem must be addressed through some conquering strategies in order to build and enhance peace and sustainable development.

#### **1. Green Policies**

Development policy of nations must place environment at the front burner. This implies that our ultimate goals, our proximate plans, and our immediate development objectives must rest upon the well being of the living environment.

#### **2. Attitude Change**

Beyond utopia, we need to inculcate in our people, an environmentally friendly attitude of mind. This is to ensure that immediate and future practices, economic process and indeed livelihoods are hinged upon the sustainable use of nature and natural resources.

#### **3. Hedonistic Strategy**

Human beings are pleasure-seekers. Simulation and other environmental games, cultural displays, drama, poetry, art, painting, advertisement industrial designs should be awakened for environmental awareness. This will cause people to see the practical side of the environment in all they do.

#### **4. Traditional Environmental Knowledge**

Traditional Environmental Knowledge (TEK) should be kept alive. There are age-survived means of protecting nature including regulated use of streams, rivers, forests, and the like. Abuse of TEK means abuse of the environment. Promotion of TEK means promotion of sound environmental practice.

#### **5. Community Education**

People must be taught to live together, learn together and take actions together to protect their environment. Awareness must be acquired on how they can use what is available to obtain what they need. In the event of change, people need to learn how to cope with a changing environment.

#### **6. Sanitation**

In urban and rural areas, people have to know how to clean up their environment, beautify it and make it convenient for living. Both the people and the environment would relate in a healthy way in a sanitary and sanitized context.

### **4.0 CONCLUSION**

We have people who live either in urban or rural areas. In both locations, there is great use being made of the environment and its natural resources. The nature of those locations, whether urban or rural, determines and influences the pressure, which is being exerted on the environment. As the characteristic features of urban and rural areas are different so are the life-styles and livelihood practices. In all societies, we need environmental practices which sustain human live and protect nature.

Peace is a commodity, which everybody seeks. Conflict does good to no man. Environmental strategies for peace-building which have been identified and presented in this unit can help us in our journey to peace and sustainable development.

### **5.0 SUMMARY**

The dichotomy between urban and rural societies has been presented in this unit. Effort was made to establish the nature and characteristics of

those societies and the strategies that we can use for promoting peace and sustainable human development in those communities.

## **6.0 TUTOR-MARKED ASSIGNMENT**

Why do we need environmental peace and sustainable development? What ecological characteristics would guide in implementing strategies for peace and the environment?

## **7.0 REFERENCES/FURTHER READINGS**

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## **UNIT 2 ENVIRONMENTAL CASUES OF CONFLICT AND THEIR RESOLUTION**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Environmental Causes of Conflict
  - 3.2 Environmental Conflict Resolution
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

Conflicts are part of human life. They are integral to it. Conflicts may not be permanent, but they are phenomenal in the society. Within and between patterns of human relationships, there are often differences in opinions, beliefs, values, aspirations, pursuits, and aspirations. Sometimes human perception and understanding situations may be at variance with each other. All these may engender disputes or lead to conflict.

Disputes and conflicts are relational. They differ in degree not really in kind. A dispute is a temporary conflict over a matter. A conflict on the other hand is a seemingly permanent, recurrent dispute over a matter or combination of matters. Most conflicts begin as dispute and some disputes degenerate into a conflict.

As humans interact with the living resources of the environment, their interaction may precipitate conflict. When that arises, it is difficult to guarantee peace and sustainable development. Thus, there is need to identify and resolve environmental conflicts and build-up peace in the society.

### **2.0 OBJECTIVES**

During and at the end of studying this unit, you should be able to:

- state the difference between a dispute and a conflict
- identify and comment on at least four causes of environmental conflicts

- present a reasoned strategy for resolving environmental conflicts in your locality
- state in clear terms, how conflicts can infringe upon ecological rights.

### 3.0 MAIN CONTENT

#### 3.1 Environmental Causes of Conflicts

As we stated earlier, conflicts are phenomenal in the society and they have several underlying causes. The causes of environmental conflicts in our own case can be identified and presented.

1. **Human Survival Needs:** We saw earlier (module 1, unit 3) that human beings are ethically prior. They are an end, not a means to an end. Their survival is paramount need. Thus, anything that touches on such needs of survival is bound to precipitate conflict. Basic human needs of food, shelter, clothing and security and air, can never be compromised without conflagrations of conflict. Thus, environmental stability depends in large part on the protection given to human survival needs.
2. **Human Interests:** All humans have varying and competing interest, which must be articulated for social harmony. Individuals differ in their interest; so do groups. At individual and social levels, therefore, the management of interest is crucial to the ability of people to enjoy environmental harmony. It must be noted that individuals who pursue their interests must do so while accommodating the interests of others. Groups also have defined interest, which they aspire to attain, but not in exclusion of the interests of other social groups.

However, when individuals or groups adopt hard-line positions in attainment of their interests, then, conflicts become inevitable. Can people be willing, and ready to sacrifice some of their interests sometimes for the sake of environmental peace? This therefore remains a probing question.

3. **Human Values:** Needs and interests are residuals when compared with core values of individuals and place. Values determine and influence needs as well as interests of people. Values constitute an intrinsic quality or virtue of goodness placed upon something. Values override a lot of other considerations in life. For instance, the value placed on public peace can out-worth any personal need or interest, and thus, over-ride it. There is also value placed on group identity, culture, traditions and social norms, etc.

Those who attempt to counter veil those values would surely be treading upon the slime-pits of conflict. Thus, it is inescapable to deride or despise or trample down the values of people without the response of conflict. The values of nationalism for example have led to several conflicts and are still pulling on several conflicts around the world.

4. **Resource Control:** Resource control is gaining recognition as an environmental right. You cannot dismember people from their environment of ages. People and the living environment are inextricably linked together. The environment sustains them through the resources which nature bequeathed and endows in it. The people explore, exploit, utilize and control those resources as their loom from nature. To disadvantage the people in the benefits of those resources or a commendably fair share of the resources has the indubitable effect of sparking conflict, which may take a lot of other resources to calm down. To undermine the people's access to available resources in their environment is indeed a violation of their fundamental rights. It can be equated to a sentence of collective suicide passed on them. Their resistance can therefore lead to interminable conflict.
5. **Livelihood Practices:** In a competitive social situation where human needs are many but satisfaction of the needs is scarce, how can people meet those needs? Individuals derive means of satisfying their needs in order to lead.

### 3.2 Environmental Conflict Resolution

1. **Negotiation Skills:** Apply the skills of negotiation, persuasion and plausible and convincing argument to modify attitudes and the interest of parties to a matter. The objective is to help all sides reach a compromise and make resolution(s) toward peace.
2. **Needs Meeting Approach:** Never block the survival needs of the people. Help them to maximize their needs meeting capabilities. However, where there are higher level needs to be considered, then present to them an acceptable alternative. You may work out compensation and other support mechanisms for existence and survival. Do not abandon people who are helpless, desperate and disadvantaged.
3. **Values of a Common Humanity:** Human beings are relational. The value of a common humanity is what propels the turbines of globalization. Beyond race, age, creed and gender, we share a



common humanity. Mutual cooperation, partnership and assistance to enable all people everywhere attain good life and actualize their set values is the new frontier in the world. Terms like corporate governance, tripartism and democracy all attest to the fact that we all need each other. The promotion and advocacy of those values can help to engender peace and vitiate conflict.

4. **Resource Indices:** The resource base constitutes the life-wire of people's existence. It follows that no attempt should be made to ravage the living resources of the people by any means. Availability of resources is one thing; the exploitation of resources for the maintenance of livelihoods of the people is another. When resources are tapped for the common good of the majority, then it must be noted that adequate derivation and plough back must be put in place in order not to deny the owners, adequate enjoyment of the benefits arising from these sources found in their area.

These measures taken together can help us to maintain and sustain peace in a competitive environment with many stakeholders.

#### 4.0 CONCLUSION

No society can move forward without peace. In some place, shifting of boundary landmarks, struggle for fishing area, and use of forests for gathering, harvesting of resources, timber and non-timber products and hunting could be sources of perennial conflicts. Bush burning arising from slash and burn agricultural practices and for hunting can predispose crisis.

What is vital to us in this chapter is the need to create and sustain an environment of peace by reducing the sources of conflict and increasing human friendly approaches to environmental resources management and utilization.

#### 5.0 SUMMARY

Conflicts are inevitable in human relations. However, it is the ability to manage and resolve the conflicts, which counts. Conflicts were understood as phenomenal and differ only in degree and not in kind. The causes of environmental conflicts have been presented to give an overview of the changing nature of its epidemiology. Efforts have also been made to help understand how to treat conflict and how to prevent and control conflicts. All of these point to the need for us to have an enduring peace in the environment.

## 6.0 TUTOR–MARKED ASSIGNMENT

1. Give reasons to explain why we find environmental conflicts around the world.
2. From your understanding of human conflicts and your local environment, plan some possible activities that can mitigate environmental crisis.

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## **UNIT 3      ECOLOGICAL ECONOMICS AND THE MILLENNIUM DEVELOPMENT**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Maximizing the Use of Ecological Resources
  - 3.2 Minimizing Resource Waste and Depletion
  - 3.3 Controlling Green Capitalism
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

There are indices, which show us that there is ecological balance and sustainable development. These dualistic processes are very much needed for the prevalence of peace in the society in which we live. The quality of life enjoyed or denied are by-products of individual and collective decisions affecting environmental-well-being. Development practices, which vitiate and compromise a garden ethic of protecting the environment is indeed development driven by questionable attitudes and suspicious economic motives. Such development derives on destructive greed and unacceptable environmental change.

All this suggests a new way of evaluating our ecological economics. The ecology and the economy exist in reciprocity. One is a producer the other is the produced. Thus, we cannot afford to allow what is produced to erode the pristine value and regenerative potentials of the producer-ecology. This understanding denotes socio-economic cost-benefit analysis and implication. Between monetisation of the resources of nature and endangerment of human life and other life forms, is a choice we must make for our common future. Essentially, we need to resolve this apparent conflict for us to live in peace now and in the future. Rethinking such a choice means undertaking three forms of judgements in dealing with the natural environment. We go into those concerns next.

## **2.0 OBJECTIVES**

During and after studying this unit, you should be able to:

- explain the environmental justification of ecological economics
- describe steps that can be taken to maximize the use of ecological resources for the benefits of human beings
- identify the measures that can be taken to reduce environmental resource depletion
- suggest strategies for regulating environmentally harmful practices in your country.

## **3.0 MAIN CONTENT**

### **3.1 Maximizing the Use of Ecological Resources**

Resources have values that transcend political dimensions. Resources may be abundant, but they are of no value when they are abandoned and unexploited. However, the power, consideration, influence and recognition which people can have depend in part on how they are able to explore, exploit and even distribute and utilize resources to meet the ends of human beings.

As presented in earlier units, there are two types of resources: Finite and Renewable resources. Both provide the material basis for improvement of human standards. Finite resources may appear as hydro-carbons-petroleum or crude oil, others are mineral deposits including gold, coal, copper, cobalt, tin, iron and steel, lime-stones, granite, laterite, etc. These non-renewable finite resources when open to exploitation have estimated extractive potential after which they become exhausted. Accordingly, the surplus values from their extraction need to be invested into other productive sectors in order to reap its dividend for the future. To mismanage such resources would make to risk a potentially secure future.

On the other hand is found a range of renewable resource base in the environment. These include the forests and other associated resources such as wildlife, fisheries, exotic species, biodiversity, the rivers, seas and the atmosphere including energy from the sun (solar energy) and wind.

For us to maximize the use of those resources require a shift in our current perceptions about the environment to adopt a garden ethic or an attitude of caring for the earth and its abundant resources. Protection must be the chief principle in dealing with the environment. Whatever, we do to the environment; we must and should be able to account for its impact level. The potential damage or harm to the environment must not be in excess of its carrying capacity.

### **3.2 Minimizing Resource Waste and Depletion**

Wanton exploitation is one chief reason for resource depletion and waste. It would be difficult for people to understand, appreciate and value what they did not work for. Environmental resources are naturally endowed upon us as humans. They are an inter-generational gift. What this means is that, the use of such treasure base of nature must be guided with ethics. This means in utilizing the natural resources, effort must be made to protect the regenerative potential of the environment. Thus, garden ethics supposes that we make use of resources in the environment to meet existential needs around us. In doing this, we must not allow the resources to become exhausted and reach a level of decline that makes it difficult to replenish itself.

We need to tame our appetites. The propensity to over-exploit the natural resources, over consumption and waste leads to speedy decline and depletion of renewable resources. It therefore stands to reason that our attitudes must change so that the resources continue to be available and adequate to meet human needs. Consumption patterns both at individual and social levels should be based on needs and not on wants. There should be strategies deliberately put in place to allow the renewable resources to regenerate themselves and be restored.

### **3.3 Controlling Green Capitalism**

In capitalist thinking, every resource has value, can be utilized, and a monetary price can be placed on it. Everything is seen in terms of monetisation. The tendency to monetise every available resource encourages people further to think in terms of surplus value. However, the desire to create surplus often tilt towards materialism. Once the monetary reward begins to trickle in, there could be no end to extraction and exploitation. This results in green capitalism.

Green capitalism is therefore a concept, which tries to explain the practice by which forest resources especially of poor nations and indeed, their environmental resources are open to undeterred exploitation. To this extent, it opens up demand for heavy investment in the natural resource sectors to deepen their exploitation. This pervading process

needs to be controlled. Without institutional control mechanisms to stem this level of exploitation, soon, a lot of resources would be devastated, degraded and species would readily become extinct. It is to this extent that all people everywhere, economic and development planners must sit up to this needs to control the exploitation of nature.

#### **4.0 CONCLUSION**

The key feature and principle of the Millennium Development Goals (MDG) is sustainable development and in fact environmental sustainability. The goals would remain a farce, when we neglect our due diligence and responsibility at the individual and social levels. Sustainable development is based on thinking about the needs and life of future generations towards which we all aspire.

Ecological economics is one way to capture this. We are all stakeholders in the living environment. We need to maximize the potentials of the environment so that at all times, the environment operates as a life-support system. We need also to minimize our negative contributions to ecological decline and resource degradation. Control of our attitudes to live in a manner that is environmental friendly is an imperative we cannot afford to neglect.

#### **5.0 SUMMARY**

The presentation in this unit can be summarized as MAX-MIN-CON for MDG (i.e. maximizing, minimizing and controlling our attitudes to be compliant to or environmentally friendly to achieve the Millennium Development Goals. In this way we can contribute to sustaining the environmental balance.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

The formula MAX-MIN-CON can be used to explain the concept of ecological economics. Discuss in full.

#### **7.0 REFERENCES/FURTHER READINGS**

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## **UNIT 4      DEVELOPMENT AND UNDERDEVELOPMENT: THE HUMAN SECURITY ISSUES**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 The Meaning of Development
  - 3.2 Underdevelopment Problems and Peace
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

It is not an easy task to make attempt at explanation of the concept of development or underdevelopment. One reason for this owes to the point that they are an all-comer concept for nearly the entire human activities. But this is precisely what we shall delve into in this unit. Whatever our concept of development it would amount to little without synergies drawn to human security.

These three concepts of development, underdevelopment and human security, help us to understand the quality of human life and its associated existential conditions in a given place at a specific time. The knowledge we gain from the concepts is not static. Understanding them is pragmatic and relative to the social and political environment in operation at any time. They are all human needs and their provision or lack of it, can lead to peace or lack of peace respectively.

### **2.0 OBJECTIVES**

During and at the end of studying this unit, you should be able to:

- discuss in clear terms the meaning of development
- differentiate between development and underdevelopment
- show the relationship between human security and development

- explain how underdevelopment and human security can affect environmental peace.

### **3.0 MAIN CONTENT**

#### **3.1 The Meaning of Development**

There can be no unilateral approach to the description of development as a concept. Development is a composite term. Different people have different interpretation of the concept. However, there are common overlaps, which can guide our understanding of the concept. Development practitioners may not agree on the definition of development but they may not be so divided in their description.

Development begins from the human mind. It is a process, which helps us to turn our intentions into inventions. Once things are invented, we then invest our time and energies in those inventions to create surplus value from them. Development practitioners then distribute and circulate those values of development from their area of surplus to the area of deficit for the benefit of human beings.

Development is a qualitative process. J.J. Rousseau for instance looked at it from the perspective he called five stages of economic growth. However, what can be ascribed to development as a qualitative process is that it begins from traditionality to modernity. Between these extremes of the continuum, many complex activities are involved which have positive impact upon the lives of people in the society. It widens opportunity and prospect for better life. It creates and makes materials possessions abundant for people.

Development enables us to have increased control of the environment. It helps us to design and invent scientific contrivances with which to conquer nature. It is indeed, a multi- faceted process which impinges upon all aspect of human life.

Development makes the industrialized countries and the emergent nations resemble in terms of quality of life or human development index. A simple measure of it is to assess how much the rural areas look like the urban in terms of quality of life not size. It can also be examined from how far the poor and the rich live closely together in terms of their socio-economic status and social distance. People who have overcome hunger, clothing and shelter (the basic necessities of life) are on their path to development.



Development does not mean a crime-free society in fact it increases it. It does not guarantee peace either. However, development enables us to regulate society and social conduct in line with tenets of civilized behaviour.

### **3.2 Underdevelopment Problems and Peace**

It is almost impossible to discuss development without mention of underdevelopment. Both concepts are the opposites of the same coin. However, whereas development is positive, underdevelopment spells a negative connotation. Such negative connotations may be about people or places, which make it hardly possible for the people to understand and control their environment to human advantage.

There is always a measure of contented domesticity embedded in underdevelopment. People accept their adverse situation as given. They resign to it as fate and do little of their own to change it. They are tradition-bound and conservative. Characteristic of underdeveloped settings is unsustainable development practices with resultant gross ecological abuses. Provision for the needs of the society of the future is pretty much lacking. In many of such places the people engage in harmful traditional practices that are inimical to acceptable rules of civilized conduct.

The life expectancy in underdeveloped settings is unacceptably low. Majority of the adult population is illiterate and the provision of basic education for all poor democratic culture is a major problem in the underdeveloped countries. Accompanying this is unbridled corruption, lack of transparency and accountability on part of the leadership.

### **4.0 CONCLUSION**

It is not so much the discussions about development and underdevelopment. What really counts to us is the human security implications and issues which they generate. Time was when human security had a solely political and military interpretation in regard to national defense. However, though this mode of thinking still persist, it is old fashioned. It has become reasonable now to realize that the security which really matters to people is their performance in terms of their human development indicators and quality of life.

It is in regard to this that the United Nations in her millennium declaration came out with the now much talked about Millennium Development Goals (MDG). The eight goals of the declaration aim to strengthen global partnership for sustainable development in the world.

In this way, both developed and developing countries can more constructively partner to assist people of the world enjoy human security in terms of provision of basic human needs. In this way nations can contribute to global peace and security.

## **5.0 SUMMARY**

Attempts have been made to clearly describe the three concepts elucidated in this unit. The concepts are development, underdevelopment and human security. What makes development and what reduces underdevelopment is the optional push towards strengthening human security in the society.

## **6.0 TUTOR-MARKED ASSIGNMENT**

Discuss the view that human security is the preoccupation of development practice and struggles against underdevelopment.

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## **UNIT 5     INTER-DEPENDENCE, DISTRIBUTIVE JUSTICE AND PEACE**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Dependence and Interdependence
  - 3.2 Distributive Justice
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

Delving into the seasonal conflicts between development and underdevelopment is not necessary. However, we need to understand the naturalness of stages of economic growth and modernization within the fabric of capitalist calculations. We cannot really over simplify by arguing that the development of the metro pole centers was a function of underdevelopment of the periphery satellite areas especially in the developing countries. We need also to understand that the level of a country's external dependence or independence is rather difficult to quantify. Moreover, changes in the international system have effects upon domestic social conditions.

If nations cannot truly decline from the dominating effects exerted at the international system, what then is the situation? The world requires collective self-reliance. This can be promoted through economic growth, expansion of world trade and increased global cooperation and donor assistance. The common interest of humanity and international cooperation is required for world peace. Such a situation must see people as great actors in global events.

There must also be concerted efforts to address global inequalities and existing injustices to accelerate development for human security. Furthermore, the seemingly irreversible strength of a few nations in the international system should be harnessed for international peace, justice and security.

## 2.0 OBJECTIVES

During and at the end of studying this unit, you should be able to:

- describe the international arena to justify the need for interdependence.
- explain the connections between dependence and interdependence
- why should we work towards re-distributive justice in the world?
- in what ways does injustice hinder environmental peace?

## 3.0 MAIN CONTENT

### 3.1 Dependence and Interdependence

Dependency theory focuses normally on the unequal and uneven relationship between the North and South; that is, the developed and the developing countries.

Countries of the South are perceived to be locked in the sensibility of dependence on the North. Much of what the South has in offer to the international system had a characteristic value tag which lacks competitive advantage. The history of development has proved this phenomenon to be true.

Within the global structure of international relations therefore, the resources are lacking in strength for the South to be able to enjoy comparative choice or even significantly influence or deter the course of action in the international arena. Instead, they are whimsically resigned to the turn of events.

The history of the South shows that most of the nations were colonized by Western powers. Colonialism brought into those nations a centripetal wind, which disparaged the covalent force among the people. It caused things to fall apart for many a nation. Dependency is therefore viewed as rooted in the internal inequalities of the nations of the South. For the overly dependence of the South to be corrected, the state must serve as an instrument of change.

Dependence is always to the disfavour of the dependent state in the sense that at both vertical and lateral levels, the dependent state remains an object of exploitation. The relationship is one of uneven pattern and unequal exchanges. One side loses the other gains. Under such context, it is supposed that dissociation would be the answer. But within a global system of complex relationships, how is this workable. Thus what nations really need is interdependence.

Interdependence is concerned with common interests and cooperation. Of course at the international system there are no permanent friends but

permanent interests. The cleavage between nations is based on interests. Once common interest is identified, nations coalesce over and around such interests. Such interest could be economic, political, social, military or environmental.

Under interdependence, the world community is seen as a global village or even super-street with a common humanity sharing only one earth. Prosperity needs to be shared and poverty and ecological problems tackled in order to have world security and peace. Interdependence thus insinuates a humanitarian approach to development where nations mutually contribute for global peace and cooperate towards it human improvement.

### **3.2 Distributive Justice**

The history of interdependence can be traced. Before the European intervention into Africa, everything was working well at least at the level of subsistence. At the dawn of European expansionism, the white man came to Africa during the voyages of discovery to discover the new world. They landed the ports of Africa with three items in their briefcases: Gold, God and Gun (3Gs) or business, book and bullet (3Bs) respectively.

The Europeans came to open up drainpipes into Africa. First as traders in communities vital to European interest, they began to cooperate with Africans. Gradually but steadily they began to entrench themselves into the economic activities in the continent and increasingly gained control, influenced and dictated its international context and direction. Plantation agriculture and single-track railways were opened up. Investment in mining activities developed extraction of the wealth of the continent increased and the commodities were expropriated overseas.

The second article that was brought into Africa was religion. The African traditional religion was seen as repugnant to civilization and pointed to a false god. The Koran and the Bible were introduced apparently as the Holy Spirit and constitution of God and heaven. Churches, mosques and schools were opened up. The aim to win souls for God, to teach European values, to promote literacy; and to develop a cream of educated African elite who would partner to accelerate and strengthen European socio-economic interests in Africa.

Thirdly, we must note that European presence in Africa had an article of colonial rule. There were reasons for that. The use of the gun and superior weapons were applied to put opposition in check. Also, they needed political power (colonial rule) to protect the economic interest of

the white man in Africa. They also needed to promote the glory of Europe in Africa.

Through colonialism, Africa went full scale as a peripheral center of European influence. With the end of colonialism and the entrenchment of politically independent nations in Africa, neo-colonial activities, which tied Africa to the apron strings of Europe, emerged a hybrid form of colonialism.

The new International Economic Order (N.E.O) later came up to address the injustices of the international system in favour of the third world. But the human factor of development was inconclusively attended to in that order. Information communication technology (ICT) soon began to rule the world; riding through the wings of globalization as a new frontier. Added to this, is the strong wind of democracy and participatory development, which have become the reality of our age.

Relationship, partnership and team play have become the new order to which nations and people must yield themselves. None, no nation can ever more live in isolation. We need each other. Beyond race, age, time and distance or location we are all one people, one blood in one world. The well being of all is the justice of one; the problem of one is the concern of all. This is the essence of interdependence.

#### **4.0 CONCLUSION**

We cannot enjoy environmental peace in a terrain of injustice. There is injustice when equals are treated unequally or unequal treated equally before the law. However, the extension is that we all have a share in global prosperity. To allow some part of humanity live as moral patients in economic defects, trading in the odds of life without help negates the essence of human hood.

Human beings everywhere are ethnically prior and must be given opportunity to express their innermost talents and resources. Mutual support and collective self-reliance is what we all need to attain for the common good of humanity. This is what can be termed dependent interdependence. Through this process we assist each other towards future betterment and peace.

#### **5.0 SUMMARY**

The peace anticipated in this unit is one that makes the environment a good life-support system and people serving as mutually dependent on each other to advance their socio-political and economic goals.

Attempts were made here to show how inextricably nations and people need each other. The problems of dependency were presented and the values of interdependence exposed. It is hoped that the dream of a common humanity would be realized when the human heart is circumcised to think and act as an interdependent factors in peace and development.

## **6.0 TUTOR-MARKED ASSIGNMENT**

Discuss four ingredients which create the need for interdependence at the international level.

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## **MODULE 5**

Unit 1	Conservation Strategies for Peace
Unit 2	Planning for Sustainable Production and Consumption Habits
Unit 3	Capacity Building for Environmental Development and Peace
Unit 4	Environmental Planning and Poverty Reduction Strategies
Unit 5	Sustainable Entrepreneurship and Gender Equality

## **UNIT 1 CONSERVATION STRATEGIES FOR PEACE**

### **CONTENTS**

1.0	Introduction
2.0	Objectives
3.0	Main Content
3.1	Conservation Strategies for Peace
3.2	Educational Strategies
3.3	Media Advocacy
3.4	Eco-Tourism
3.5	Government Policy
3.6	Traditional Environmental Knowledge
3.7	Alternative Livelihoods
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Readings

### **1.0 INTRODUCTION**

In module II unit I, effort was made to clearly explain the concept of conservation and its associated terms such as preservation and protection. In this unit, it shall be obvious that actions must be put in place to enable us succeed in conservation activities. Conservation and sustainable development have become the catch phrase of development work in contemporary times.

To live in harmony with the environment and keep economic and productive activities within its carrying capacity, some measures have to be put in place. Those measures are the focus of this unit, as we shall present shortly.

### **2.0 OBJECTIVES**



During and at the end of studying this unit, you should be able to:

- examine specific ways that educational intervention approaches can be used for conservation and sustainable development
- describe the role of the multi-media in conservation for peace
- discuss the contributions of eco-tourism
- design specific programmes to aid conservation practices in your local area
- suggest some alternative coping strategies in the light of environmental change.

### **3.0 MAIN CONTENT**

#### **3.1 Conservation Strategies for Peace**

There is environmental peace when people are able to earn their living without significant ecological damage, which compromise the start of the environment and development in the future. Five main strategies are here presented to help us achieve that condition in the environment.

#### **3.2 Educational Strategies**

If we refer to unit 3 of module II of this course book, environmental education was discussed as a method for environmental peace. One of the strategies in this regard is to design and mount environmental education, science, protection management and its allied areas as academic disciplines to be studied at degree and post-graduate levels.

At the lower levels of the formal school system, knowledge about the state of the environmental should be part of what students learn in all subjects. Teachers should be exposed to environmentally based knowledge. School competitions needed to be made an annual event by managers of school. Environmental clubs should be made part of every school life to raise students to become friends of nature. Through such clubs, ecological games can be designed and employed by them.

#### **3.3 Media Advocacy**

Radio jingles and promotions can be used to raise awareness of people about the state of the environment. Television and radio programmes, which discuss pressing environmental problems and concerns, should be sponsored to help us control the environment. Cartoons, traditional media like town criers at the rural level would count in spreading the values of environmental protection to the people.

### **3.4 Eco-Tourism**

The promotion of tourism in general and eco-tourism in particular can help us optimize conservation efforts. Mountains, rivers, lakes, oases, the forest and its rich nature reserve with its exotic species variety as well as monoliths, indigenous people, festivals and so on can constitute a gamut of reserves for eco-tourism. Eco-tourism makes people attract global attention to peculiarities of this environment. It makes them earn money from tourists and live better.

### **3.5 Government Policy**

Government policy enactments are vital to success of conservation activities for peace. Measures in this direction may include, establishment of disaster management and emergency response agencies, an ecological fund, and ministry of the environment. Also in this direction, government may make deliberate effort to create national park projects for protection of nature; as well as the establishment of wildlife sanctuaries and sites for special scientific and ecological interests.

### **3.6 Traditional Environmental Knowledge**

There are some traditional environmental practices, which helped to protect nature and may still subsist or be made relevant in today's world. Such practices can help us cope with and control ecological change. Social forestry, community forestry, holy grounds, evil rivers are some examples which can help us protect nature.

### **3.7 Alternative Livelihoods**

One main reason for environmental problems is poverty. Thus, plans must be made to support and empower people in a manner that enables them to open up new ways of survival, which are environmentally friendly.

## **4.0 CONCLUSION**

It is possible to move with change without experiencing a disruptive effect. The key is to prepare for it. Attitudes and institutions are required in the change mechanism, as we shall see earlier in unit 2 of module II. An analysis of conflict and peace goes beyond belligerent factor. Food and environmental security and good life are other key factors to be noted and considered in our calculations to attain peace in the society.

## **5.0 SUMMARY**

Strategies for environmental conservation and peace are many and varied. However there are no watertight strategies for achieving that purpose. In this unit, we presented key strategies that can help us achieve the goal of ecological peace. The strategies range from attitudinal, media, community oriented to policy measures.

## 6.0 TUTOR-MARKED ASSIGNMENT

From your study of this unit, identify community, attitudinal and policy strategies, which can be used to promote conservation for peace. How can those strategies be made to work?

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## **UNIT 2      PLANNING FOR SUSTAINABLE PRODUCTION AND CONSUMPTION HABITS**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Planning Dimensions for Sustainable Production
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

Prepare or repair. There is more to that statement than a mere declaration when people do not prepare for the future, they hardly can handle any exigency with readiness and promptness. When they do, the results may fall far short of expectation. It is even worse when it comes to matters of the environment because they extend far into the future.

The whole essence of sustainability dovetails into ensuring the future well being of humanity. When we plan for sustainable production, we do so to meet current life needs and put in place productive practices, which ensure the continued availability of what we produce and access to their use by people in the future. Sustainable production is production, which is based on the needs rather than ostentation and waste. Planning in this sense would mean, producing to consume, and consuming what is produced wisely, so as to continue to produce for consumption.

### **2.0 OBJECTIVES**

During and at the end of studying this unit, you should be able to:

- describe clearly, the meaning of sustainable production
- present steps that can help people plan activities for sustainable production
- identify those appetites, which need to be controlled to help maintain proper consumption habit in the society.

### **3.0 MAIN CONTENT**

#### **3.1 Planning Dimensions for Sustainable Production**

Planning is a management function comprising six parts: planning etc. In fact the entire activity can be understood by applying the acronym POSDCOORB

##### **PLANNING**

Planning is a mental activity. It involves putting ideas together to show in hypothetical or skeletal form how those ideas can be made to work. Planning helps us to project our thoughts in a structured form. It specifies step by step what is to be done and how. Planning means prepare or repair. When people fail to plan how to use environmental resources for production of economic and social values, they are actually planning for crises. Planning is an activity, which helps us to picture our future and the direction of its events.

##### **ORGANIZING**

To organize is to turn plans into specific schedules. It shows in vertical and lateral order, the steps to be taken to solve a problem, or serve a need or attain an objective. Organizing means to show the connections that are to be made as a means to an end.

Organizing means the assignment of responsibility to those who stand to work, do, implement a project or programme such as would lead to the production of either goods or services.

In organizing for the production of environmental resources, we align ourselves with the natural pattern of carrying capacity of environmental resources, the productive capacity of ecosystems and the natural balance of ecological resources. The ability to organize, lays the foundation stone for sustainable use of environmental resources.

##### **SELECTING**

Choices have to be made to stir up production. There are people, ideas, strategies, plans and resources to be chosen in a manner that leads to attainment of productive purposes. Target audience group must be selected.

- The purpose of production must be known.
- The time frame to produce what is a selection activity.

- People with the requisite skills and ability must be known.
- The science and technology and expertise required needs to be identified and garnered together.
- Selection is in fact a choice making process to achieve target goals and plans.

## **DIRECTING**

To guide, order, authorize, warrant, back-up and determine what is to be done with recognized influence is a directing function. You cannot direct people who are not ready, willing and able to perform. When every preparation has been made to ensure production take-off, directing comes in. when directed people are placed in check of what people are placed in check of what is done or to be done.

## **COORDINATING**

Coordinating is not only systems thinking but also systems processing. It involves articulating the entire units which make up an establishment, organization or system in such a manner that those activities run efficiently. To produce in excess in wanton disregard to needs would amount to wasteful consumption. It is therefore crucial to play both the extraction of ecological resources and their needs meeting potentials such that we waste not and want not. Chemical fishing and the use of bushfires for hunting game or bush animals would negate and contradict the entire essence of coordinating production and consumption habit in regard to natural resources.

## **BUDGETING**

Budgeting entails planning how to manage. Management of time is one critical thing that we must learn in order to harmonize production and consumption habits of people. Every human being must know and understanding the value of time. Time cannot be wasted because all time is used. However, it can be misapplied, and misused. Time misused is time lost. We must understand the new environmental imperative. Learn when to plant and when to harvest. Understand how to produce and conserve and plan strategies to protect the resource we consume around us.

## **4.0 CONCLUSION**

Our appetites and consumption habits must be disciplined. Human greed is a chief cause of ecological decline and resource depletion all over the world.

## 5.0 SUMMARY

The inseparable link between the need to produce and the need to protect has been presented in this unit. Our future hope rests upon what we do with our present situation. This is why planning is key to how we explore the resources of nature. The rate of resource consumption must be controlled and the pace of environmental decline slowed. To do otherwise would mean to endanger the condition of species on earth.

## 6.0 TUTOR-MARKED ASSIGNMENT

Demonstrate with clear example how we can plan to stabilize the consumption and production of a vital resource in your country.

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## **UNIT 3                    CAPACITY BUILDING FOR ENVIRONMENTAL DEVELOPMENT AND PEACE**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Types of Capacity Building
    - 3.1.1 Carrying Capacity
    - 3.1.2 Potential Capacity
    - 3.1.3 Incremental or Renewable Capacity
    - 3.1.4 Sustained Capacity
  - 3.2 Principles of Capacity Building
    - 3.2.1 Analysis of the Environmental Components
    - 3.2.2 Comprehensiveness of Thought
    - 3.2.3 Aggregation of Relevant Ideas and Strategies and Methods and Factors
    - 3.2.4 Consistency in Focus on Key Variables
    - 3.2.5 Control against Eroding Forces
    - 3.2.6 Inspiration of Personal Interest
    - 3.2.7 Horizontal Impact Making (Life wide)
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

Before action is taken, preparation precedes it. That preparation is a process of gathering momentum. Capacity building is a process of acquiring knowledge, information, skills, understanding and competences, which equips people with the required disposition for the accomplishment of a task goal or objective. The attainment of development goals generally, the ultimate goals of environmental protection and the prevalence of peace in the society means that we help people to acquire capacity and develop their potentials in order to perform those roles.

Human capacity building is therefore one vital area of focus in sustainable environmental development for global peace. The living environment is multi-dimensional. Thus, several tangents of capacity development need to be put in place in order to be able to deal with all phases of environmental problems and concerns.



## 2.0 OBJECTIVES

During and at the end of studying this unit, you should be able to:

- explain the meaning of capacity building
- identify the types of human capacity-building for environmental development and peace
- state clearly the principles, which can be used for human capacity building in the area of environmental development
- justify capacity building as human resource development relevant to environmental protection.

## 3.0 MAIN CONTENT

Let us make an attempt to look at the types of capacity building and principles for capacity building.

### 3.1 Types of Capacity-Building

Four types of capacity building have been identified and isolated for treatment in this unit. They are:

#### 3.1.1 Carrying Capacity

A growing babble must be able to maintain itself in a steady state freely. An aero plane must be able to overcome gravity in order to fly. So is the earth. The living earth must be able to keep itself in a continuous state of living supply balance for it to serve all the life-support systems in it. Carrying capacity is therefore the intrinsic capacity for self-regulation in a manner that the rate and speed of destruction of resources do not accelerate and exceed the potential of the earth to renew itself.

#### 3.1.2 Potential Capacity

For humans, there are billions of neuron cells in the brain. These cells make human beings to be Homo sapiens with the endowed capacity to think logically and create things, discover and invent. Similarly, there are millions of known and undiscovered species of plants and animals in the living environment. Those species have limitless potentials in the creating ecosystem balance and a network of life-support systems. This potential capacity of life forms can be discovered and harnessed to the advantage of nature.

### **3.1.3 Incremental or Renewable Capacity**

The forest ecosystem and indeed the oceans have regenerative capacity to restore themselves. This means that they replenish themselves at about the same rate of their depletion and destruction. This is called renewable or Incremental Capacity. It is to be added that environmental capacity building at two levels, the finite and renewable resource levels. For resources that can become extinct, proceeds from them need to be invested in other development programmes. For the renewable resources, effort should be to decrease their rate of depletion and increase their regenerative potential.

### **3.1.4 Sustained Capacity**

Renewable capacity is also called sustainable capacity. It is different from sustained capacity. The latter is the capacity to sustain economic growth as a by-product of the use of environmental resources which have a predictable and definite life span. Mismanagement of finite resources leads to environmental and peace problems for generations of the future and our common humanity.

## **3.2 Principles of Capacity Building**

What we present next are eight principles for capacity building, which can help us create and sustain environmental peace.

### **3.2.1 Comprehensiveness of Thought**

This principle requires that attempt must be made to brainstorm and think about all possible aspects of the environment, which require human capacity building for their development. Air, water and land, their associated features and resources must be thought about in the widest order.

### **3.2.2 Analysis of Environmental Components**

The principle of analysis means we must identify environmental components and specify the elements, which interact within the air, water and land components. The degree of interaction and impact arising from the interaction would all aid our building strategies.

### **3.2.3 Aggregation Principle**

There is need for the aggregation of ideas, methods, materials, factors and strategies in a manner that helps the articulation of the processes for

human capacity development. This principle creates the experiences, which are vital to capacity building in the area of environmental development.

### **3.2.4 Consistency of Focus on Key Variables**

Key variables stand out when we carefully analyze and aggregate ecological ideas and factors. Variables include interest in a commitment to improving human awareness about the environment around us, habit of inquiry and understanding of the relationship between human beings and the living environment. To veer off from them means to deviate from what is necessary and needful for life.

### **3.2.5 Control against Eroding Forces**

There are several competing factors, which need to be controlled for proper capacity building to take place. These include unfriendly environmental practices by groups and individuals, greed for ecological resource exploitation, and vested interest of the powerful in society.

### **3.2.6 Inspiration of Personal Interest**

All stakeholders must be inspired to show interest in and commitment to the environment. It is the basis for our existence. Everybody is a stakeholder in the environment. We need to demonstrate to the people how interest in ecological peace and balance can produce dividends for our economy and society. Such interest forms a major starting point for capacity building.

### **3.2.7 Horizontal Impact Making**

Capacity building must be principled upon best practices. We can replicate experiences in our capacity building designs or projects. We borrow experiences to improve our practices. This way we can learn from the successes of other people around us.

### **3.2.8 Inter-Generational Principle**

In planning for capacity building, the principle of inter-generational equity must be our guide. We all share a common future. That future needs to be protected through our current practices and preparations. How we get there depends on how we get started.

#### **4.0 CONCLUSION**

Capacity building is one side of human resource management. In the field of environment, we begin to wonder how life would be without a resource base to sustain it. Thus, we cannot extract capacity building in our collective effort to gain control of the environment. Herein lie the types of human capacity development we need and the principles, which can guide us in their application. This approach will help us to re-inhabit the earth.

#### **5.0 SUMMARY**

Between effort and effect is a world of capacity. It is the strength of our capacity that turns human effort into an effect whether desirable or otherwise. Four types of capacity building processes were identified in this unit. They were closely woven to show their characteristic effect on environmental resources development.

Related to these types of capacity-development are eight principles presented as guide to the capacity-building process. As advocates of peace, the environment is our starting point; and capacity building our potential weapon.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

1. Present and discuss with specific local examples four types of human capacity development relevant to ecological peace.
2. Demonstrate the principles, which you would use to mount a capacity building programme in the area of environmental peace.

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## **UNIT 4 ENVIRONMENTAL PLANNING AND POVERTY REDUCTION STRATEGIES**

### **CONTENTS**

<b>1.0</b>	Introduction
2.0	Objectives
<b>3.0</b>	Main Content
3.1	The Millennium Development Goals as Poverty Reduction Strategy
3.2	Principles for Environmental Planning
<b>4.0</b>	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
<b>7.0</b>	References/Further Readings

### **1.0 INTRODUCTION**

Environmental goals are ambitious-goals. The means of achieving them is the main clicker for their attainment. Those means and strategies for getting what is desired would continue to remain an important consideration for success in ecological management.

What we require is the development of sensitivities to environmental imperatives and to rethink every action that can impact upon environmental balance. This is so because environmental planning is a holistic process, and a guarantee for sustainable development and indeed poverty reduction. Poverty has many dimensions. Poverty is also many-sided. The former provides the context in which the latter can be treated. Herein lies the need for a thinking globally and acting locally in a manner that maintains a planned environment for the improvement of living standard.

### **2.0 OBJECTIVES**

During and at the end of studying this unit, you should be able to:

- explain the need for environmental planning
- discuss how the Millennium Development Goals are formidable in poverty reduction efforts
- identify the principles that can be used for environmental planning in a local context.

### 3.0 MAIN CONTENT

It is needful for us at this level to present in clear ways how the Millennium Development Goals (MDG) applies to environmental planning and poverty reduction.

#### 3.1 The Millennium Development Goals (MDG) As Poverty Reduction Strategy

##### Goal 1

**Eradicate Extreme Poverty and Hunger.** This very first goal recognizes the weight which extreme poverty places on people of the world. It suggests the need for poverty reduction and the attacking of hunger through adequate planning for food security. We must be challenged to come out with those environmentally friendly strategies that are humane and supportive of life.

##### Goal 2

**Achieve Universal Primary Education.** Educational Institutions have to be provided in adequate number and even spread across all society. At the primary school level, the goal of making it universal means reducing inherent attendance difficulty to minimum. Through these institutions, people can learn how to be positive in attitudes towards the living environment and take friendly actions to plan it.

##### Goal 3

**Remove Gender Equality and Empower Women.** When we eliminate gender disparity and encourage partnership which integrates women in development, women as environmental users would become properly informed and encouraged to plan how to use the environment in a friendly way.

##### Goal 4

**Reduce Child Mortality.** Child mortality is an environmental problem, which hinders peace. It disrupts the harmony in family life. To this extent, all effort must be made to reduce the deaths of children less than five years through policy direction and political commitment.

##### Goal 5

**Improve Maternal Health.** Maternal mortality (death of mothers at delivery point) must be seen as a serious problem and attention paid to

stem it. Like goal four, when attended to, it will enhance peace for humanity and thus stabilize man-environment relationship.

### **Goal 6**

**Combat HIV/AIDs, Malaria and Other Diseases.** All nations and people must help to stop the spread of the HIV/AIDS pandemic as an approach to environmental peace.

### **Goal 7**

**Ensure Environmental Sustainability.** In relating with the biosphere, (air, water bodies and land), there is great need to reverse the trend of resource decline and accelerate adherence to principles of sustainable development.

### **Goal 8**

**Develop a Global Partnership for Development.** On all matters of environment and development all people are equal stakeholders. Thus, there is the utmost need to integrate all people within and between nations in the global agenda for peace, ecological balance and sustainable development.

## **3.2 Principles for Environmental Planning**

Three principles, which indicate good environmental practices, are highlighted next.

### **1. Comprehensiveness**

Planning the environment for poverty reduction is a total approach. The comprehensive principle suggests that all aspects and dimensions of the environment must be taken into consideration when planning. The plans must be life-wide such that success can be replicated elsewhere with characteristic success.

### **2. Aggregation**

Environmental indicators, inputs, outputs, pressures on resources and collective responses must be articulated to the effect that their aggregate impact helps to improve humanity and sustain environmental balance.

### **3. Consistency**

To reach where we are going, we must picture our future. There must be a head and land connection to make for vertical and horizontal balance in planning the ecosystem. Our ideas and practices must not deviate or derail.

#### **4.0 CONCLUSION**

The problem in our hands today and the challenges of our future all rest in our hands. What we do today determines or may influence what we experience later. This explains why we need to plan for the future. Poverty is a grave ecological problem experienced in our society. The plans and responses we make towards the environment would keep us within the carrying capacity or cause us to live as endangered species. Herein lies the need to plan purposefully how to make use of environmental resources and fight poverty.

#### **5.0 SUMMARY**

It is almost impossible to control the past. But we can take steps to gainfully control what happens today. In this unit, attempt was made to show how the need for environmental planning has become an imperative for poverty reduction. The relevance of planning to attainment of the millennium goals were presented as well as the principles for planning in relation to poverty reduction.

#### **6.0 TUTOR-MARKED ASSIGNMENT**

Explain in your words how the principles of planning can be used to attain poverty reduction within the context of the millennium goals.

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## **UNIT 5 SUSTAINABLE ENTREPRENEURSHIP AND GENDER EQUALITY FOR PEACE**

### **CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Women as Endangered Species
  - 3.2 Inhibitions of Earnings
  - 3.3 Sustainable Entrepreneurship and Livelihoods
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Readings

### **1.0 INTRODUCTION**

There are many sides to peace. One of these is sustainable entrepreneurship. As we bring this book, indeed this course to an end, enterprise building for women comes to mind. We cannot truly be talking about women participation in development if we are unable to empower them as a marginalized, sometimes neglected species.

In fact, one way to address the problem of feminized poverty is to pay attention to sustainable development of entrepreneurship for women. In this way we shall be working towards an environment of peace. To discriminate against women in the area of productive skill attainment is to further deepen the propensity for feminized poverty and throw women into social exclusion and economic binge.

### **2.0 OBJECTIVES**

During and at the end of studying this unit, you should be able to:

- identify the various categories of women that can be selected for participation in sustainable entrepreneurship
- discuss the reasons responsible for narrowing down the earnings of women in your country
- make a presentation on the potential income generation opportunities, which are open to women in your society
- explain how gender inequality is entrenched in society and how it can be tackled for sustainable peace and development.

### **3.0 MAIN CONTENT**

#### **3.1 Women as Endangered Species**

It is difficult to talk about marginalization, discrimination, neglect, and abuse or even social seclusion without a topical focus on women. All over the world, women are considered as the weaker sex and the less privileged compared to the male counterparts. The double bind of nature or biological characteristics and nurture social reproduction of identities account in large part for that. The result is that in some parts of the world, women are apparently seen as sub-human and less able to compete with the men in several social and economic settings.

Women have continued to be regarded as less privileged in the society. The entire women folk, particularly the girl-child and widows have less competitive social and economic opportunities. Within the family configuration, for instance, the girl-child is the normal and to wait for the male-child to be enrolled in school. Sometimes those enrolled are withdrawn as young brides for potentially milling men.

Widows on their part have a limited number of economic opportunities. The loss of a husband means the loss of economic support for a great number of women. Where tradition of denying women the right of inheritance is in vogue, widows quickly turn a beggarly life and are left at the mercy of in-laws. In some cases, they have to be bundled home to their kith and kin especially if they had no child at the time of spousal death.

The same situation applies to women in purdah. In insular societies where religion propels and influences, it is difficult for women to utilize or even maximize their potentials. In some industrial and economic systems, working class women pay higher tax than men. Also, there are deliberate policies designed to preclude women from decision-making positions in some public and private sectors. An elite discrimination, you may call it.

#### **3.2 Inhibition of Earnings**

Income generation potentials of women suffer a drawback. The reason for that is not far-fetched.

Self-reliance for women is highly compromised. Some men do not believe or support the financial independence of a woman. Others go further to frustrate them. Thus, when a woman is married, her self-

reliance rests in part upon what her spouse wants from her. It is often a compromise between marriage and work life. The consequence is that we still find in our society, women who are educated unemployables due to spousal influence.

Some women are unable to utilize their qualifications and paper credentials because they are more or less mis-educated. Though educated, such women suffer a mismatch between their potential resources and the challenges of marriage and family life. The result is they cannot be in productive employment; and therefore remain dysfunctional. They do other things outside their training and competence.

### **3.3 Sustainable Entrepreneurship and Livelihood**

All the categories of women so far presented in this unit, require livelihood skills and sustainable entrepreneurship. This is to address the disarticulation, which their position in society brings upon their life.

One answer is through re-education and alternative livelihood. Re-education takes women beyond idealism to the reality of womanhood in a male-dominated social context. Beyond their developed and existing capacities, women need mode of earning a living acceptable to their spouse. Such a re-engineering process can reposition the women for productive living.

Women caught in the labyrinth of that social context need alternative livelihood skills. There are many of such skills-acquisitions. In our environment we can find, local ceramics and pottery, beading, hat production, and making of local cakes and confectionery. Other enterprises are, decoration and even management sales representation, investment business, wearing and crafts work. In addition, women could be empowered for poetry, novel and book writing as well as music for talented ones. At the grassroots, women could be empowered for bee keeping (for honey production) snail farming, mushroom cultivation and other forms of petty business.

## **4.0 CONCLUSION**

There are several factors, which account for gender as social reproduction. One of those factors is the patriarch structure of society in which case women are perceived as the objects of obligation. This makes them merely to play a subordinate role in the society. It is a man's world, they say. But is it? Such a male-oriented, male-dominated conception of society only gives women the image of moral patients.

Accordingly, a lot of women have poor self-assertion and low-self concepts. This situation entrenches, reinforces and strengthens the condition of women as a powerless lot. This false premise must change if only to integrate women as effective development partners and for peace in micro and macro settings both now and in the long term.

It must be noted again that, equality does not and cannot mean sameness but recognition, support and access to prevailing opportunities in the society.

## **5.0 SUMMARY**

As homo sapiens, human beings have billions of neuron cells in their brain. This makes it possible to think and create. There are multiple ways humans can direct their thought processes. To be enterprising, people have to be able to cope with changing environmental challenges and by being able to develop productive tasks to earn a living even in the midst of unfriendly circumstances.

To be unable to do so would mean inability to cope with economic challenges in the society. Consequently the inhibitors to women earning potentials have been identified in this unit. Attempts were also made to show what can be done to improve the earning potentials of women to enhance their livelihoods, and to redress the problems created by gender-stereotyping in the society. That strategy is presented here as a panacea for sustainable, gender friendly peace in the society.

## **6.0 TUTOR-MARKED ASSIGNMENT**

1. In what ways is gender a problem to peace in your country?
2. Design a programme on entrepreneurship for a group of local women in your area. Explain how your programme can improve their livelihoods.

## **7.0 REFERENCES/FURTHER READINGS**

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