UNIT 9 : CHALLENGS OF ENVIRONMENTAL EDUCATION

UNIT STRUCTURE

9.1 Learning Objectives

9.2 Introduction

9.3 Problems of Environmental Education

9.3.1 Specific Environmental Problems in Assam

9.3.2 Prospects of Environmental Education

9.3.3 Provisions of Environmental Education in Assam

9.4 Let Us Sum Up

9.5 Further Reading

9.6 Answers To Check Your Progress

9.7 Possible Questions

9.1 LEARNING OBJECTIVES

After going through this unit, you will be able to -

- identify the problems of Environmental Education
- explore the prospects of Environmental Education
- explain the need of Environmental Education in Assam
- discuss the problems of imparting Environmental Education in Assam.

9.2 INTRODUCTION

Environmental Education, in its broader perspective covers a wide variety of elements, things, matters and beings from the biosphere or the eco-system. The term bio-sphere is the combination of two terms, viz. bio and sphere. The term bio originated from the Greek term *bios*, which means human life. Similarly, the term sphere also originated from another Greek term *sphaira* which means a globe or ball. Hence, in brief the term biosphere means the portion of the earth occupied by living organisms.

Man has always been dependent on the environment. Initially, when the size of the population on earth was small and limited resources were required to satisfy their needs, human activities did not severely affect the environment. But, the gradual increase of population on earth led to over exploitation of nature and its resources to such an extent that the natural balance of our environment got destroyed. Environmental problems across the world have reached such a stage that the entire human race has come under serious threat from environmental problems. It was being gradually realized that educating people about environmental problems and the issues related to the effects of their actions against the environment, is of grave importance. This realization of mankind led to the emergence and development of the concept of environmental education. This unit introduces you to the challenges of Environmental Education by discussing its problems and prospects with special reference to Assam.

9.3 PROBLEMS OF ENVIRONMENTAL EDUCATION

The importance and necessity of Environmental Education has been increasingly realized at the local, national and the international level. Although there are specific problems in the implementation of Environmental Education our attention may be focused to the following points-

- Environmental Education is a subject-matter which is comprehensive in nature. It comprises variety and multiplicity of elements and constituent components. This has created a problem in designing courses for Environmental Education.
- Success of any scheme of education always depends on the quality and performance of teachers concerned. One of the problems related to Environmental Education is the lack of proper training of the teacher.
- Environmental Education is a multi-disciplinary and inter-disciplinary subject. It calls for **unprecedented** collaboration in teaching which is difficult to achieve practically.
- Environmental Education programmes require certain infrastructure facilities, but in Assam there is a dearth of these facilities. This has caused some problem in imparting Environmental Education in Assam.

- Curriculum load for students is another problem of Environmental Education. The curriculum load for students is so heavy that it leads to mental stress among the students. Such overcrowded curriculum prevents the schools from introducing more field based activities on environment for their pupils.
- Though Environmental Education has been made compulsory in our country, the sense of urgency required for the **restoration** of environmental balance is lacking among pupils, teachers and all the concerned stakeholders.
- At present, the study of any specialised subject is largely influenced by the scope provided for the employment avenues to students. Unless Environmental Education as a subject is made job oriented, the students are unlikely to be motivated for its higher study and research.
- There has been very limited research in the field of Environmental Education in India and in Assam particularly.
- Lack of political will and government priorities for Environmental Education have been the major problems. Environmental Education in our country gets least priority because other developmental and educational aspects become more important for the government.
- Environmental Education projects and activities require the involvement of large amount of funds and supply of suitable materials.
- Lack of timely information relating to the environment is another problem of environmental education in India and in Assam. There is lack of co-ordination and communication among the different agencies involved in the task of collection and management of data and information on the environment.
- There is a shortage of properly trained education officers in the government to make plans, organize and implement activities and supervise environmental education in schools. This has created problems for the implementation of the environmental education programme.

9.3.1 Specific environmental problems in Assam

Assam is better known for its rich natural environmental potentials and resources. We have the enviable position so far as the state's water resources, forest resources, mineral resources and power resources are concerned. In spite of the abundance of the natural resources, the people and the state as a whole remain economically poor, backward and industrially under-developed. The obvious reason is that the natural resources of the state could not be effectively utilized owing to the lack of man-power resources and many other reasons. In the previous section we have discussed some of the problems faced by environmental education. Our state Assam has been facing some peculiar problems in the field of environmental education in addition to the problems discussed above. Our immediate attention needs to be drawn to the following problems-

- **Rapid growth of population**

  Growth of population in Assam is said to be unusually high that has a terrible effect on the natural resources. The total population of Assam, as per 2011 census is 31,205,576 of which 15,939,443 are male and 15,266,133 are female respectively. The population of Assam forms 2.58 percent of India in 2011.

- **Large scale migration and infiltration**

  It is an established fact that there is large scale infiltration of foreigners from the neighbouring country like Bangladesh. This infiltration is quite instrumental not only in the destruction of the natural resources, but also in the change in the demographic pattern of the indigenous people of the state.

- **Destruction of the forest resources**

  Assam's valuable forest resources are fast deteriorating due to desperately cutting down of trees and smuggling out of the woods outside the state in convenience with the forest officials.

- **Unplanned growth of industries**

  Industrial growth in Assam is on the rise but has been taking place in an unplanned way. As such, it has created the problem of air, water and soil pollution and degradation at a large scale.

- **Problem of the automobiles**

  In the city areas, more particularly in the Metropolitan city of Guwahati, automobile problem is assuming a greater dimension. It is creating air and noise pollution in the densely populated areas of the city, endangering physical health and hygiene of the people.

- **Solid Waste problem**

  Owing to irresponsible behaviour of the high standard of living in the cities, solid waste and garbage problem have become very critical. It causes harmful effect of air, water and soil pollution endangering people's health and hygiene. Poor drainage system creates the problem of water-logging, resulting in artificial flood in the city like Guwahati.

- **Flood and erosion**

  Another nature-made serious environmental problem in the state is that of flood and erosion. It causes heavy loss of life and property during the summer season every year. The Central government was urged to declare flood and erosion of the Brahmaputra River a national problem.

- **Man-animal conflict**

  A typical environmental problem has been created in Assam owing to conflict and confrontation between men and animals like tigers and elephants, resulting in the death of one or the other in the recent years. Deforestation, blasting of the rocks, and consequently gradual contraction of the forest areas has compelled the wild animals to come out of their natural habitat and destroy human life and property.

- **Unauthorized cutting and grabbing of land**

  With the explosion of human population in the city areas cutting

the hilly land, filling of the marshy land, and constructing unauthorized houses are common features. This has created the problem of land pollution and land erosion in the habitable areas.



LET US KNOW

The specific problem of environmental education are-

- Lack of trained teachers
- Lack of proper infrastructure facilities
- Too much of curriculum load
- Very limited research
- Lack of political will
- Lack of funds
- Shortage of properly trained education officers etc.

Apart from these, specific environmental problems with special reference to Assam are-

- Destruction of the forest resources
- Growth of the Industries
- Problem of the wild animals etc
- Use of Plastic Bags



CHECK YOUR PROGRESS

Q 1: Mention the specific environmental problems with special reference to Assam.

.....

.....

9.3.2 Prospects of Environmental Education

Every new subject at its initial stage is likely to be confronted with certain organisational and instructional problems. Environmental education is also not an exception to this. But keeping in view possible impact on the welfare and wellbeing of our future generation, the

importance and prospects of this subject can be easily comprehended. Attention may be focused on certain vital issues of the world which are explained below:

- **Scope for developing and underdeveloped countries**

  It should be understood that environmental education is a subject closely associated with the problem of socio-economic development of both the developing and under-developed countries of the world and its people. These countries are confronted with the major problems like population explosion, illiteracy, cultural and religious conservatism, economic poverty and unemployment etc. that lead them to environmental pollution and degradation. Environmental Education is therefore an eye opener to most of the countries of the world in raising their grade and standard.

- **Realisation of the need of man's inter-relatedness**

  Environmental Education is a bold step towards the path of sanity and man's own behaviour towards international understanding. The UNESCO in 1970 has observed: "Environmental education is the process of recognising values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the inter-relatedness among men, his culture and his big physical surroundings." Environmental problem is a global problem. So, initiative taken by the international organizations like the UNESCO at the global level may definitely give a ray of hope to the developing and the underdeveloped countries of the world.

- **Strengthening of the ethical and moral values**

  Environmental Education urges men to apply their ethical senses, moral and aesthetic values to discipline themselves in their thought, activity and behaviour towards the environment in which they live and grow. The arousal of the moral senses among the people of different nations of the world through this education may indeed act as a moral booster to solve

many of the problems confronted by the whole world today.

- **Solution to Socio-Economic Problems**

  Environmental Education can ensure solution to the major socio-economic problems confronted by modern man in society. Solution to problems like population explosion, depletion of power resources, deforestation and destruction of man's natural habitat, pollution of air, water and land, landslides, global warming etc lie with the Environmental Education to the people. Socio-economic problems of a country cannot be solved unilaterally.

- **Maintaining health and hygiene**

  Environmental Education is at present related to the vital problem of keeping health and hygiene of people. Many of the serious diseases like cancer and formation of tumour etc, have been found to have originated from environmental pollution of air and water in the biosphere and stratosphere. It has therefore, thrown a formidable challenge to be met by modern men through the use of medical science. Environmental study provides scope for studying man's physiological science today at its higher level.

- **Providing scope for new creativity**

  Environmental education provides necessary scope and incentive to the creative genius in undertaking higher studies and research on various issues and problems relating to environment. Serious people can undertake higher studies and research on various environmental issues and problems. This education can infact, bring in the creative geniuses together to think, feel and act for a better life and environment for the future.

  The Indian Constitution too, has given adequate importance to environmental education and values -

  Article 48-A of Indian constitution states that -

  "The state shall endeavour to protect and improve the

environment and to safeguard the forests and wild life in the country"

Again, Article 51 (g) states that -

"It shall be the duty of every citizen to protect and improve the natural environment, including, forests, lakes, rivers and wild life and to have compassion for living creatures."

National policy on education, 1986 also highlighted the importance of Environmental Education in the following lines: "There is paramount need to create a consciousness of the environment. It must permeate all ages and all section of the society, beginning with the child environmental consciousness should inform teaching in schools and in colleges. This aspect will be integrated in the entire educational process."

Various commissions, reports and policies on education have been emphasising the need and importance of environmental education. Inspite of all these provisions, environmental education had not received proper attention and importance in our formal system of education until very recent times.

Assam is considered one of the bio-diversity hot spots in India. The state is gifted with plenty of natural resources. It is rich in floral and faunal bio-diversity spread in more than twenty wild life sanctuaries. But, lack of awareness regarding conservation and over exploitation of resources led to large scale destruction of forests and wild life in the region.

9.3.3 Provisions of Environmental Education in Assam

- **Role of the NGOs**

  Non-Government Organisation (NGO) working in different parts of the state may also effectively undertake organisational responsibility on creating environmental awareness. More particularly the NGOs like Save Guwahati and Build Guwahati (SGBG) has demanded the survey of hills, wetlands and plain lands of the Guwahati city. Some of these organizations like

Assam Science Society have their programmes of giving science education to people on environment. These organizations can act as a link between the government and the people in regard to environmental problem and their solution. The State government may offer financial assistance to the NGO's in promoting this education.

- **Agricultural Extension Education**

  The Agricultural University in the state can offer extension service to the rural agricultural people as a part of environmental education. The University may organize training centres in the agricultural areas of the state and give education to people in respect of the use of fertilizer, chemicals, conservation of soil and irrigation system etc. The government Agricultural Department may also offer necessary help and guidance to people in this regard.

- **Role of the Government**

  The department of environment and forest, Government of Assam, has made various provisions for conservation and protection of natural resources. It organizes activities like elephant festival, forest festival etc. to sensitize people about environmental issues and problems. The Govt. of Assam constituted **Pollution Control Board of Assam (PCBA)** with the purpose of protecting the environment and preventing and controlling pollution in the state. The Department of environment and Forest and the PCBA can play important role in bringing about environmental awareness and understanding among the people of the state.

- **Role of the University authorities**

  In the context of the present environmental degradation, this education to people is an urgent necessity in the state. The existing formal education has not given due attention to this area of education. Recognizing the basic need of its study, the Supreme Court in 2003, redirected all the states and

educational authorities to take steps to introduce environmental studies in all classes from 2004-05. The court asked the NCERT and UGC to frame model syllabus for environmental studies at school and College level respectively. Accordingly, Environmental studies have now become compulsory for all stages of education in our country.

- **Role of the Scientific Research Centres and Organizations**

  In Assam there are certain scientific research centres, organizations and institutions that are already playing the useful role in giving environmental education to the people. They are the Regional Research Laboratory (RRL) of Jorhat, Nalgahori Research Centre of Basistha, Regional Science Centre of Khanapara, Assam Voluntary Health Association, Assam Science and Technological Education Council (ASTEC) etc, are worth mentioning.



LET US KNOW

Provisions of Environmental education in Assam are-

- Role of the non-Govt. Organization
- Agricultural extension training centre
- Role of the environment and forest department
- Role of the University authorities



CHECK YOUR PROGRESS

Q 2: Briefly explain two provisions of Environmental Education in Assam.

.....

.....

Q 3: Write about the "Prospects of environmental education - Write within 50 words.

.....

.....



ACTIVITY 9.1

How can public awareness on environment be generated? Give your comments.

.....

.....



9.4 LET US SUM UP

- Environmental Education covers a wide variety of elements, things, matters and beings from the biosphere or the eco-system. The term bio-sphere is the combination of two terms, viz. bio and sphere. The term bio is originated from the Greek term *bios*, which means human life. Similarly, the term sphere is also originated from another Greek term *sphaira* which means a globe or ball. In brief the term biosphere means those parts of the earth occupied by living organisms.
- Environmental Education is a programme dealing with the processes of the inter-relationship of man and his environment.
- There is no doubt that Environmental Education Programmes generates awareness and sensitivity. But such programmes may not be effective unless they do not focus on the necessary skills and attitudes of the people.
- Various problems affecting the present system of Environmental Education Programme may include - lack of trained teachers, lack of proper infrastructure facilities, too much of curriculum load, very limited research, lack of political will, lack of funds, shortage of properly trained education officers etc.
- The specific environmental problems of Assam are- rapid growth of population, large scale migration and infiltration, destruction of the forest resources, unplanned growth of industries, problem of automobile, solid waste problem, flood and erosion, man-animal

conflict, and unauthorised cutting and grabbing of land, etc.

- The Indian constitution has given adequate importance to environmental education and values:

  Article 48-A of Indian constitution states that –"The state shall endeavour to protect and improve the environment and to safeguard the forests and wild life in the country"

  Article 51 (g) states that -"It shall be the duty of every citizen to protect and improve the natural environment, including, forests, lakes, rivers and wild life and to have compassion for living creatures."
- The main provisions of Environmental education in Assam are - Role of the non-Govt. Organization, Agricultural extension education, role of government, role of the university authorities, role of the scientific research centres and organizations etc.



9.5 FURTHER READING

1) Reddy, K.P. & Reddy, D.N. (nd). *Environmental Education*. Hyderabad: Neelkamal Publication, Pvt. Ltd..

2) Sharma, R.A. (2005). *Environmental Education*. Meerut: R. Lall Book depot.



9.6 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: The specific environmental problems of Assam are -

- Rapid growth of population
- Large Scale migration and infiltration.
- Destruction of the forest resources.
- Unplanned growth of industries.

- Problem of automobiles.
- Solid Waste Problem
- Flood and erosion
- Man-animal conflict
- Unauthorized cutting and grabbing of land

Ans to Q No 2: The two Provisions of Environmental education in Assam are-

- The Agricultural University in the state can offer extension service to therural agricultural people as a part of environmental education. The University may organize training centres in the agricultural areas of the state and give education to people in respect of the use of fertilizer, chemicals, conservation of soil and variegation system etc.
- Various Govt. and Non-Government Organisation (NGO) working in the field of environmental education through the non-formal mode of education. More particularly the NGO Save Guwahati and Build Guwahati (SGBG) has demanded survey of the hills, wetlands and plain lands of the Guwahati city.

Ans to Q No 3: Environmental Education is a subject closely associated with the problem of socio-economic development of the developing and under-developed countries of the world and its people. These countries are confronted with the major problems of population explosion, illiteracy, cultural and religious conservatism, economic poverty and unemployment etc. that have lead them to environmental pollution and degradation.



9.7 MODEL QUESTIONS

A) Short Questions (Answer each question in about 150 words)

Q 1: Mention any five important problems of Environmental Education.

Q 2: Explain the role of NGO in providing Environmental Education.

Q 3: Discuss in brief the specific environmental problems with special reference to Assam.

B) Long Questions ((Answer each question in about 300 words)

Q 1: Discuss in detail the important environmental problems with special reference to Assam.

Q 2: Elaborate the various prospects of Environmental Education.

Q 3: Discuss the provision of Environmental Education with special reference to Assam.

*** ***** ***