

ENVIRONMENTAL EDUCATION

IN

HIGHER EDUCATION SYSTEM

with special reference to north-east India

B. K. TIWARI

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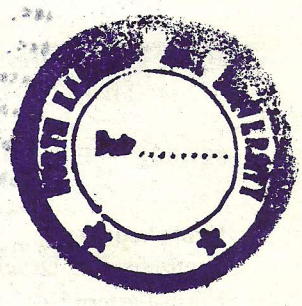
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Editor
B. K. TIWARI

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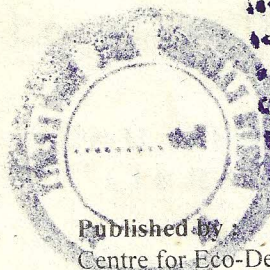
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PREFACE

Failure to understand the place and role of man in the environment, and absence among people even of elementary knowledge on the development of the biosphere, taking into account the overall social, moral economic and cultural heritage, has generated pessimistic views concerning long time progress of mankind. Over the past few decades, the gravity of environmental problems has grown so rapidly that political and administrative actions have often proved to be insufficient to tackle them effectively. Conservation and improvement of the quality of the environment were seen more clearly as a problem which should be approached with consideration of its various aspects and dimensions both scientific and ethical, requiring the participation of all sectors of population.

United Nations Conference on the Human Environment, Stockholm (1972) recommended that "the organizations of United Nations system, especially UNESCO and the other international agencies concerned, should, after consultation and agreement, take the necessary steps to establish an international program in environmental education, interdisciplinary in approach, in school and out-of-school encompassing all levels of education and directed towards the general public, in particular the ordinary citizen with a view to educating him as to the simple steps he might take, within his means to manage and control his environment."

With the cooperation of the United Nations Environment Program (UNEP) UNESCO in 1975, launched the International Environmental Education Program (IEEP). The National Institute of Educational Planning and Administration (NIEPA) in collaboration with UNESCO (IEEP-UNEP) has been organizing regional and international training programs in environmental education for educational planners and administrators. UNESCO has now proposed that NIEPA should organize national and sub-national programs for

for educational personnel involved in environmental education. The "Preparatory Planning Meeting on National and Regional Programs on Planning and Management of Environmental Education in India" held in August 1990, identified North-Eastern Hill University, Shillong, for holding a Regional Training Workshop which was held on 28-30 October, 1991.

The Objectives of the Workshop was :

1. To review the status of environmental education in the higher education system in the country with special reference to north eastern India.
2. To develop a detailed conceptual framework for introducing environmental education in higher education.
3. To prepare an operational plan for implementing EE in higher education system in the country.

The participants of the workshop were the senior faculty members of Universities and Colleges of North-Eastern India, including the professional and technical colleges. The participation was through invitation and/or deputation by the institution.

A good number of academics who have made significant contribution in EE and have experience in the area of workshop were invited as resource persons.

Three working groups were constituted and were assigned with specific topics for their consideration. These groups after long hours of deliberations formulated recommendations which are outlined in the initial few pages of this volume. This follows the presentations made by various resource persons during the workshop. The programme s'hedule, proceedings of the workshop, list of papers presented, composition of working groups and list of participants are given in Appendix I-V.

OBJECTIVES AND CONTENT OF EE IN HIGHER EDUCATION.

K.K. Sharma, R. Govinda, B.K. Tiwari, R.N. Hooroo,
V. Velho, H.N. Pandey, M.M. Singh

1. Rationale

Paragraph 8.15 of the National Policy on Education, 1986 reads as follows,

"There is a paramount need to create a consciousness of the environment. It must permeate all ages and all sections of society, beginning with the child. Consciousness should inform teaching in Schools and Colleges. This aspect will be integrated in the entire educational process."

Though EE needs rational continuity from school to higher education yet at higher education, it needs special treatment. The objectives and nature of content in EE will have to be worked out in the background of philosophy of EE, nature of target groups at under graduate and post graduate stages, their cognitive needs, conditions prevailing at local, regional, national and international level and commitment of administrators and technocrats towards the protection of environment.

EE at higher education will have to be imparted through different alternative systems like formal, non-formal and distant and open learning systems in order to cover the vast population both student and non-student.

The purpose of introducing EE at college and university level is not to introduce another science subject but to accept a system of education which would create an awareness and consciousness to preserve and maintain healthy environment where man can live peacefully. It aims at to develop new outlook, perspective and attitude towards life in relation to environment. Tbilisi International Conference on Environment Education (UNESCO-1977), has also clearly spelt out the

concept of EE. It has been accepted that EE is not to be added to educational programs as a separate discipline or a subject for special study, but as a dimension to be integrated in the existing curriculum. EE is the result of a reorientation and rearticulation of the various disciplines and of various educational experiments (natural sciences, social sciences, arts and letters, etc.) providing an integrated perception of environment and fostering more rational environmental action replying appropriately to social needs.

In this background the objectives and content of EE at higher education have been drawn.

2. Major and Specific Objectives of EE

The major objective of EE is: to aid citizens in becoming environmentally knowledgeable and, above all, skilled and dedicated who are willing to work, individually and collectively, toward achieving and/or maintaining a dynamic equilibrium between quality of life and quality of the environment.

Further the specific objectives of EE will have to be drawn from three points of reference (i) General Awareness, (ii) Developing Competencies in specific areas and (iii) Participating for resolving environmental problems.

The specific objectives are listed below :

1. To make the students environment conscious and sensitive through study and social action.
2. To develop an awareness in student of the relationship of man with his environment.
3. To enable the student to understand the local regional and global perspective and related issues of the environment.
4. To retain old good value and evolve a set of new values in the behaviour of students with

regard to interface between man and environment

5. To impart knowledge, skills and attitudes of discipline with reference to environment.
6. To structuralise the inter-relationship of various discipline of knowledge in the context of environment.
7. To develop a conceptual framework of specific discipline of study in relation to environment.
8. To develop awareness among students about sustainable development in relation to environment.
9. To develop expertise in special areas related to environmental education.
10. To disseminate knowledge to the masses in simple non-technical language through extension programs of the college and university system (non-formal system/distant/open learning modes).

3. Curriculum content

In the light of the above mentioned rationale of environmental education and its objectives, the following structure of content at two level can be visualized/designed.

(a) CORE COMPONENT

1. Environment - concept and components of environment : need for holistic approach, concept of ecosystems, energy flow and material cycling, major ecosystems of the world.
2. Man : Man in relation to environment; major environmental problems, population explosion land degradation, deforestation, climatic and hydrological changes, acid rain, water, air, soil and noise pollution.

3. Resource management : Types of resources, conventional and non-conventional energy sources, resource conservation-conservation of biodiversity, sustainable use of resources waste management, monitoring and evaluation of pollution, eco-planning and eco-development.
4. Policies, acts and legislations for environmental protection : Policies at State, National and International level, Acts and legislation related to water, air, noise, pollution, wild life conservation, and forest conservation, environmental protection, society and environment.

(b) DISCIPLINE SPECIFIC CONTENT

The content in different disciplines of study can be identified by the faculty while covering the basic concepts of the respective disciplines.

Illustrations to this fact are given below :

1. Natural sciences ecology, ethology, hygiene and demography, basic concepts relating to the living creatures and ecosystems, behaviour, environment connected diseases and population.
2. Social sciences Economics-basic concepts relating to production, consumption, distribution, development; Sociology, Psychology, Anthropology, Ethology-basic concepts relating to co-ordination of elements, relationships, groups in history, comparisons, causes and consequences; Political Science-basic concepts relating to reach for organisational and institutional principles.
3. Languages - Concepts relating to learning on: writing for free expression of environmental reality; analysis of speeches, writing and advertising; use of local dialects and other modern languages in discussion, work communication etc.