

ENVIRONMENTAL EDUCATION

IN

HIGHER EDUCATION SYSTEM

with special reference to north-east India

B. K. TIWARI

NE

333.7071154 5A16

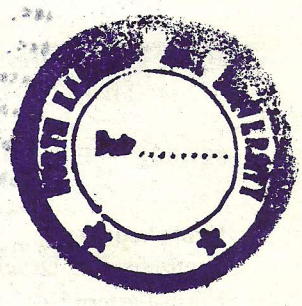
Tiwari 16

F256
770

ENVIRONMENTAL EDUCATION IN HIGHER EDUCATION SYSTEM

with special reference to north-east India

UNIVERSITY OF NORTH-EAST INDIA
Library
Dis. No. 1000/1000/1000
Date of issue: 10/10/1000



Editor
B. K. TIWARI

Proceedings of Regional Training Workshop on Environmental Education in Higher Education System held on 28 - 30 October, 1991, at Shillong

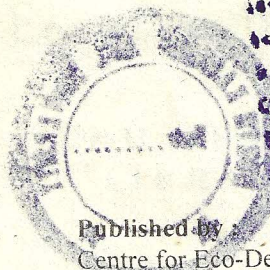
NE

333.707115416

TIW;1

Organised by
Centre For Eco-Development
School of Life Sciences
North-Eastern Hill University
Shillong- 793014

Sponsored by :
National Institute of Educational Planning and Administration, New Delhi - 110016
in cooperation with
UNESCO-UNEP International Environmental Education Programme, Paris.



NEHU Library
Acc. No. 181251
Acc. by
Date 27/10/91
Class by
Sub Reading by
Library
Transcribed by

Published by :
Centre for Eco-Development, School of Life Sciences
North-Eastern Hill University, Shillong - 793014
1993

Printed at:
Ri Khasi Offset Printers, Shillong.

Contents

	Page
1. PREFACE	i - ii
2. OBJECTIVES AND CONTENT OF EE IN HIGHER EDUCATION - K.K. Sharma, R. Govinda, B.K. Tiwari, R.N. Hooroo, V. Velho, H.N. Pandey and M.M. Singh	1 - 4
3. THE STRATEGIES FOR INTEGRATING EE IN HIGHER EDUCATION - S.K. Sarmah, H. Tombi Singh, M.M. Goswami, M. George, M.C. Pandey, M.S. Devi and R.P. Singh	5 - 7
4. IMPLEMENTATION MECHANISMS FOR INTRODUCING EE IN HIGHER EDUCATION - M. Das, M.D. Tiwari Tavnenga, S. Singh, M. Konwar, M.L. Khan, Uma Shankar and A. Gupta	8 - 12
5. A SOCIAL PRESPECTIVE OF ENVIRONMENTAL AWARENESS IN HIGHER EDUCATION SYSTEM - B. Datta Ray	13 - 14
6. ENVIRONMENTAL PROBLEMS AND ENVIRONMENTAL EDUCATION IN MANIPUR - H. Tombi Singh and M. Shanti Devi	15 - 25
7. NEED OF ENVIRONMENTAL EDUCATION IN HIGHER EDUCATION SYSTEM - S.K. Sarmah	26 - 28
8. BIOLOGICAL SCIENCES AND ECOLOGY COMPONENT OF ENVIRONMENTAL EDUCATION CURRICULUM - B.K. Tiwari and R.S. Tripathi	29 - 30
9. ENVIRONMENTAL EDUCATION IN LIFE SCIENCE CURRICULA - Abhik Gupta	31 - 32
10. ENVIRONMENTAL EDUCATION IN TECHNICAL EDUCATION - M. Das	33 - 36
11. ENVIRONMENTAL EDUCATION WITH REFERENCE TO HIGHER EDUCATION SYSTEM - M.M. Goswami	37 - 39
12. EMPHASIS ON ENVIRONMENTAL MANAGEMENT TRAINING IN HIGHER EDUCATION SYSTEM - Uma Shankar and M.L. Khan	40 - 42

13. ENVIRONMENTAL EDUCATION; PROSPECTS AND WORKING METHODOLOGY IN ASSAM - P.C. Bhattacharjee	43 - 45
14. ECO-PHILOSOPHY, ENVIRONMENTAL EDUCATION AND COMMUNICATION TECHNOLOGY - Mathew George	46 - 53
15. CONCEPTUAL FRAME AND STRATEGIES FOR INTRODUCING ENVIRONMENTAL EDUCATION - Surendra Singh	54 - 61
16. APPENDIX - I : Program Schedule	62 - 63
17. APPENDIX - II : Proceedings of the Workshop	64 - 65
18. APPENDIX - III : Plenary Lectures/Papers Presented in the Workshop	66 - 68
19. APPENDIX - IV : Composition of Working Groups	69
20. APPENDIX - V : List of Participants	70 - 73

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.

THE STRATEGIES FOR INTEGRATING EE IN HIGHER EDUCATION

S.K. Sarmah, H. Tombi Singh, M.M. Goswami, M. George,
M.C. Pandey, M.S. Devi, R.P. Singh

UNESCO-UNEP International Environmental Education Program (1985) defined environmental education as "the process of recognising values and clarifying concept in order to develop skills and attitudes necessary to understand and appreciate the interrelatedness among man, his culture and his bio-physical surroundings."

Keeping this definition in view, the following suggestions have been made for integrating EE in higher education system.

1. The EE (the subject "Environment") may be a compulsory component in the syllabus of "Foundation Course" of the under-graduate studies in the colleges to expose all the students at the undergraduate level to EE.
2. EE may be introduced in the form of an elective subject or subjects, interdisciplinary in nature, in the undergraduate courses with a scope for further development leading to postgraduate study programs, in order to develop expertise in EE.
3. There may be reorientation of courses for inclusion of environmental components in all the basic disciplines of general undergraduate studies-arts, science and commerce.

Similar reorientation may be made in technical education courses such as Engineering, Medical, Veterinary, Agriculture etc. and in professional courses such as Journalism and Law.

4. EE programs may be extended to masters degree level by introducing courses of inter-disciplinary nature in the universities and colleges.

The existing courses in the masters degree level may be reoriented to have environmental components/implications in the topics or subjects taught.

5. Inter-disciplinary research programs related to EE may be encouraged in M.Phil and Ph.D level with special reference to the local/regional environmental problems. Scholarships and Fellowships for researchers on Environment related problems may be made available to them.
6. While preparing syllabus and curriculum of the various programs of EE, sufficient coverage may be given to local/regional problems. U.G.C. may be requested to prepare model syllabus for EE for under-graduate and post-graduate level courses.
7. For implementation of EE programs in various levels of the education system, teacher training programs of interdisciplinary nature may be undertaken as follows :
 - (a) Academic Staff Colleges may introduce re-orientation programs for teachers of colleges and universities.
 - (b) Teacher Education and Training Programs :
 - (i) In the traditional B.T./B.ED. colleges, method teaching is done only for general education in traditional subjects. In addition to these, a new component of teaching method integrating EE may be introduced in these colleges.
 - (ii) In the M.ED./M.A. in Education level "Environmental Education" may be introduced as a paper. In this course methodology, teaching material and practice teaching may be introduced and evaluated in the normal way.
 - (iii) Summer institutes and short term courses

on environmental education to the teachers teaching 'environment' in schools/colleges/universities may be held periodically at local/regional/national level.

(iv) Administrators may be exposed to EE through "Administrative Staff Colleges".

3. EE at school/college/university level may be supplemented by extension programs which may be taken up through distant education programs, mass media, workshop, seminars, exhibition etc. NGO's, NSS, Youth Clubs, Boy Scouts and Girls Guides may also be involved in EE programs.

NGO's role may be a liaison between EE in higher education system and the general mass people. In addition they may independently undertake environmental awareness programmes for common people through demonstration and literacy programme. NGO's should have a close linkage with the university/college where EE is imparted.