ECO-CLUB MANUAL

(FOR ECO-CLUB INCHARGES)

2012



State Council of Educational Research and Training Varun Marg, Defence Colony, New Delhi-24

Chief Advisor

Director, SCERT

Guidance

Anita Satia

Additional Director, SCERT

Dr Pratibha Sharma

Joint Director, SCERT

Co-ordinator

Dr. Sohrab Alam

Sr.Lecturer (IFIIC)

DIET Daryaganj, New Delhi

Associate Co-ordinators

Ms. Ila Rani

Lecturer (cont)

Work Ex and Voc Edu, SCERT Delhi

&

Dr. Aerum Khan

Lecturer (cont), Teching of Science DIET Daryaganj, New Delhi

CONTRIBUTORS

Mr. Bhuwan Chandra Tewari, Lecturer (Biology) RPVV, Gandhi Nagar, Delhi-31

Dr. B.C. Sabata, Sr. Scientific officer, Deptt of environment, GNCT, Delhi

Mr. Johnson David, Retd. Lecturer (Biology), DOE, GNCT of Delhi

Mrs Vandana Gupta, Freelancer, Art and Craft, Affiliated with CCRT

Mr. Reetesh Kumar Gupta, Lecturer (Biology)RPVV, Surajmal Vihar, Delhi

Dr. Subhasri Sinha, Retd. Sr. Lecturer, SCERT, New Delhi

Dr. Neerja Sood, Associate Professor, Dayal Singh College, Lodhi Road, New Delhi

Mrs Preeti Gupta, Freelancer, Art and Craft, Affiliated with CCRT

Dr. Sohrab Alam, Sr.Lecturer (IFIIC), DIET Daryaganj, New Delhi

Dr. Aerum Khan, Lecturer (cont), Teching of Science, DIET Daryaganj, Delhi

Ms. Ila Rani, Lecturer (cont), SCERT

Dr. Ranjana saxena, Associate Professor, Dayal Singh College, Lodhi Road, New Delhi

Dr. Rajesh Kumar, Principal, DIET Daryaganj, Delhi

Dr. Swati Biswas, Assistant Professor, ARSD College, Dhaula Kuan, New Delhi

Publication Incharge

Meenakshi Yadav and Sapna Yadav

Publication Team

Navin Kumar, Ms. Radha, Jai Bhagwan

Contents

1	ECO - CLUB
2	BIODIVERSITY9
3	HEALTHY FOOD HABITS AND DEFICIENCY DISEASES23
4	WATER: SANITATION AND HYGIENE WATER AND WATER RELATED RESOURCES
5	BEST OUT OF WASTE51
6	ENVIRONMENTAL ETHICS AND LEGAL ASPECTS63
7	DISASTER MANAGEMENT69
8	GREEN SCHOOL CAMPUS81

CHAPTER

ECO - CLUB

Introduction

A group of people who are interested in doing something for the environment can achieve much more than an individual can. Groups promote discussion, which can lead to innovative and exciting ideas. Working as a club is also much more fun and is a good way to make friends. All sorts of clubs can be formed, but an eco club will enable you to do something positive about the environment and there are interesting and exciting activities that can be generated around the topic "our environment".

Historical background

Environment Education, Awareness & Training (EEAT) Scheme is a Central Scheme.

EEAT Scheme was launched during the 6th Five Year Plan in 1983-84 with specific objectives. Over a period of time, it undertook number of programmes with different names.

- (i) To promote environmental awareness among all sections of the society;
- (ii) To spread environment education, especially in the non-formal system among different sections of the society;
- (iii) To facilitate development of education/training materials and aids in the formal education sector;
- (iv) To promote environment education through existing educational/scientific/research institutions;
- (v) To ensure training and manpower development for environment education, awareness and training;
- (vi) To encourage non-governmental organizations, mass media and other concerned organizations for promoting awareness about environmental issues among the people at all levels;
- (vii) To use different media including films, audio, visual and print,, theatre, drama, advertisements, hoarding, posters, seminars, workshops, competitions, meetings etc. for spreading messages con-

cerning environment and awareness; and

(viii) To mobilize people's participation for preservation and conservation of environment.

How to achieve objectives

The objectives of this scheme are being realized through implementation of the following programmes launched over the years:

- (1) National Environment Awareness Campaign (NEAC).
- (2) National Green Corps (NGC) / ECO Club.
- (3) Global Learning & Observations to Benefit the Environment (GLOBE).
- (4) Seminars/Symposia/Workshops.
- (5) Other Awareness Programmes like Quiz/Essay/Debate/Poster/Slogan competitions/ Rally / Campaigns/ Mock Eco Assembly, training programmes etc.

Environmental Education, Awareness and Training plays a significant role in encouraging and enhancing people's participation in activities aimed at conservation, protection and management of the environment, essential for achieving sustainable development. The Ministry, therefore, accords priority for the promotion of non-formal environment education and creation of awareness among all sections of the society through diverse activities using traditional and modern media of communication. Some of the major activities undertaken in this regard are as follows:

National Environment Awareness Campaign (NEAC):

The NEAC was launched in mid 1986 with the objective of creating environmental awareness at the national level. It is a multi-media campaign which utilises conventional and non-conventional methods of communication for disseminating environmental messages to a wide range of target groups. Under this campaign, nominal financial assistance is provided to registered NGOs, schools, colleges, universities, research institutions, women and youth organisations, army units, State Government Departments etc. from all over the country for organising/conducting awareness raising activities. These activities which include seminars, workshops, training programmes, camps, padyatras, rallies, public meetings, exhibitions, essay/debate/painting/poster competitions, folk dances and songs, street theatre, puppet shows, preparation and distribution of environmental education resource materials etc., are followed by action like plantation of trees, management of household waste, cleaning of water bodies etc. Diverse target groups encompassing students, youth, teachers, tribals, farmers, other rural population, professionals and the general public are covered under NEAC. The programme is being implemented through 28 designated Regional Resource Agencies (RRAs) for specific states/regions of the country. The list of these RRAs along with their addresses is given at the end. The applications for participation in this programme are invited every year through advertisement in major national and regional newspapers during the months of May/June. Any additional information can be obtained from the concerned regional resource agency.

Eco-clubs (National Green Corps):

The main objectives of this programme are to educate children about their immediate environment and impart knowledge about the eco-systems, their inter-dependence and their need for survival, through visits and demonstrations and to mobilise youngsters by instilling in them the spirit of scientific inquiry into environmental problems and involving them in the efforts of environmental preservation.

Since the modification of the scheme in 1993, more than 10,000 Eco-clubs had been provided grants until 2000-2001 in various parts of the country. Considering that the total number of schools covered

were grossly inadequate compared to the total number of schools in the country and keeping in view the potential of this programme in sensitizing the school students. It was decided to intensify this programme to cover each and every district of the country.

A programme of raising National Green Corps through the Eco clubs was, therefore, launched during 2001-2002. Under this programme, Eco-clubs are being set up in 100 schools of each District of the country. 47,000 Eco-clubs have been set up so far in the country. This programme is being implemented in each State/UT through the Nodal agency appointed by the State/UT Govt.

Global Learning and Observations to Benefit the Environment (GLOBE)

The GLOBE is an International Science and Education Programme, which stress on hands-on participatory approach. India joined this programme during the August, 2000. This programme, which unites students, teachers and scientists all over the world, is aimed at school children.

The Supreme Court and Environment Education

In 1991, Shri M C Mehta filed an application in the public interest (Writ Petition (Civil) No. 860 of 1991), asking the Supreme Court to:

- Issue direction to cinema halls that they show slides with information on the environment;
- Issue direction for the spread of information relating to the environment on All India Radio; and
- Issue direction that the study of the environment becomes a compulsory subject in schools and colleges.

The consequent order of the Supreme Court dated 22 Nov. 1991 is available.

On 18th December 2003, the Hon'ble Supreme Court further ordered, "We also direct the NCERT....to prepare a module (model) syllabus", and directed that

"We accept on principle that through the medium of education awareness of the environment and its problems related to pollution should be taught as a compulsory subject. The University Grants Commission will take appropriate steps immediately to give effect to what we have said, i.e. requiring the Universities to prescribe a course on environment. So far as education upto the college level is concerned, we would require every State Government and every Education Board connected with education upto the matriculation stage or even intermediate college to immediately take steps to enforce compulsory education on environment in a graded way."

On 13th July 2004 the Supreme Court directed that "the syllabus prepared by the NCERT for Class I to XII shall be adopted by every state in their respective schools". It further directed that "NCERT be appointed as a nodal agency to supervise the implementation of this Court's order". Compliance to Supreme Court order is mandatory and desirable, and applies to all states and Union Territories (in fact, it is one of the few things that apply to all education in India).

NCERT developed the following syllabus for Environment Education for 1 to 12 standards, which was accepted by the Supreme Court (but this syllabus has subsequently been reviewed and revised in the light of NCF 2005)

NCERT clarified that in order to have compliance, a separate subject is not necessary. It can be done through infusion, in science, social studies, mathematics, language and other subjects, and/or through a separate subject. It does however have to be part of the compulsory curriculum.

The <u>NCERT submitted an affidavit</u> to the Supreme Court, which was <u>accepted by the Supreme Court on 03-12-2010</u> and the matter of the writ petition is deemed to have been resolved.

The current method of implementation of EE in Schools as accepted by the petitioner Mr. MC Mehta, the NCERT and the Supreme Court, is as follows

Classes	Mode of Transaction
I and II	Through Activities
III to V	Environmental Studies (EVS)
VI to X	Infusion Model
XI to XII	Project based study

The NCERT is to bring out project books for standards V to XII.

Purpose to establish Eco-club

Teach others about what we have learned

Actively involve with nature physically and spiritually

Provide a service to our community

Protect and preserve wildlife

Gain an understanding of our environment and our place in it

Improve the natural environment

Lessen our negative impact on the environment

Develop and enhance our mental and physical skills

BASIC STRUCTURE OF ECO-CLUB IN SCHOOL

Initiation of an Eco club:

The idea of forming an Eco club may come from principal or school administration . Sometimes an enthusiastic teacher may take the lead or students themselves may ask to be allowed to take up these activities . In some cases , outside organizations like WWF or CEE may initiate the process of starting an Eco club in the school .

How to form an Eco club:

A club can be a school-related activity, in which case it would be useful to obtain the involvement of a teacher. It can also be run within your community, where you can use word of mouth or advertise in newspapers to recruit members. It is a good idea to have a constitution for your club. This will include:

- The name of the club
- The aims and objectives of the club
- Administration, for example, a chairperson, a treasurer and a secretary
- Membership
- Club meetings
- Contacts (organizations which can provide assistance, such as the WWF and Deptt. of Environment, NCT of Delhi & Ministry of Environment and Forests, Govt. of India)

Eco clubs in Delhi Institutions:

Eco Clubs play an important role in creating environmental awareness amongst the future generation. 2000 Eco-Clubs have been established in Government, Aided, Private, Public Schools and Colleges of NCT of Delhi. Department of Environment provides a token grant @Rs. 20000-/ to each Eco Club School/College for undertaking various eco-friendly activities.

The School/Colleges interested in Setting up of the "Eco-Club"

Contact:

Dr. B. C. Sabata (Sr. Scientific Officer),
Department of Environment,
Govt of NCT of Delhi,
6th level C-Wing, Delhi Secretariat, I.P. Estate
New Delhi-110002
Phone No.-23392032
Email- bcsabat@ yahoo.com, ecoclub delhigovt@ yahoo.com

The activities under the scheme include

- 1. Motivate the students to keep their surroundings green and clean by undertaking plantation of trees. (Forest Department provides free saplings from its 14 nurseries
- 2. Promote ethos of conservation of water by minimizing the use of water.
- 3. Motivate students to imbibe habits and life style for minimum waste generation, source separation of waste and disposing the waste to the nearest storage point.
- 4. Educate students to create awareness amongst public and sanitary workers, so as to stop the indiscriminate burning of waste which causes respiratory diseases.
- 5. Sensitize the students to minimize the use of plastic bags, not to throw them in public places as they choke drains and sewers, cause water logging and provide breeding ground for mosquitoes.
- 6. Organize tree plantation programmes, awareness programmes such as Quiz, essay, painting competitions, rally, nukkad natak etc. regarding various environmental issues and educate children about re-use of waste material & preparation of products out of waste
- 7. Organize Nature Trail in Wild Life Sanctuaries/Parks/Forest areas to know about the Bio-diversity

In order to undertake the programme in a systematic way the Department has identified 93 schools and 2 colleges as Lead Schools and about 25-30 schools/colleges are attached to each lead school for proper coordination and implementation of various activities. Each lead eco-club school/college teacher has been trained as master trainer on environmental issues. Orientation programmes for Eco Club incharge teachers are also conducted with the help of Environment experts. The students are also exposed to field activities such as Nature Trails, Quiz and poster competitions etc. so as to create enthusiasm regarding issues pertaining to Plants/Forest/Wildlife/Bio-diversity and Nature.

Performance Measures

Growth in self knowledge and knowledge of the world around us .

Improved and healthier natural environment and increase in wildlife habitat.

Increase in species and biodiversity of wildlife.

Earn in ecology badges for activities performed.

Gain positive and peaceful feelings.

Campaigns in Eco-club schools

- 1. Tree Plantation drive
- 2. Anti –Fire Crackers
- 3. Say No to Plastic bags
- 4. Khelo Holi Naturally
- 5. Zero Garbage concept in schools

- 6. Water Conservation and Energy Conservation.
- 7. Rally / Human chain / Eco-care in schools and surrounding areas.
- 8. Message on Environment during Prayer / Morning Assembly.
- 9. Action oriented programmes like Paper recycling, Vermi-composting, Rain water harvesting, Mushroom cultivation, waste management etc.

Eco-club Dynamics:

- 1. Essay writing competition
- 2 Debate
- 3 Extempore
- 4 Poster making
- 5 Slogan making
- 6 Drawing and Painting
- 7 Quiz Competition
- 8 Rally
- 9 Expert Lecture
- 10 Eco Games
- 11 Cleanliness Drive
- 12 Field trips / Nature trails
- 13 Mock Eco Assembly
- 14 Any other

Tools / Materials needed

(Depending upon the project)

Seeds, seedlings, saplings, gardening gloves, various digging tools, rakes, pieces of wood, strong wood glue, hammer, nails, non-toxic paints, brushes etc.

Projects

- 1. Grow living gardens, flowers, vegetables and native plants.
- 2. Plant native trees on school ground.
- 3. Make birdhouses and nesting boxes and place on school grounds.
- 4. Build a nature trail with signposts and information.
- 5. School waste composting.
- 6. Waste material management
- 7. Build wildlife habitats and provide food, water and shelter for wildlife
- 8. Build a compost pile using grass clippings, fruit and vegetable scraps.
- 9. Environmental education: Provide learning resources for members.
- 10. Start recycling project by collecting cans, bottles, paper or cloth.
- 11. Remove alien invasive plant species in streams and catchment areas.
- 12. Litter clean ups of parks and other open spaces.
- 13. Undertaking environment management plan for your school or community centre.

Financial assistance for Action oriented programmes

- 1. **Rain water Harvesting**: 50% of the project cost Target 2500 units.
- 2. Waste Paper Recycling machine: Rs. 1 Lac provided for each machine unit in 100 schools.

- 3. **Herbal Garden**: Rs. 2000/= each to each of the 60 schools.
- 4. **Solar Water Heating system**: Rs.. 60,000/= assistance for each of the 45 schoo_ls and colleges from Environment Deptt. to have Solar Water heating system with a life span of 30 years
- 5. **Vermi-composting**: Rs. 17000/= per school programme set up in 200 schools by M/s Society for Environment & Development and Control Association
- 6. <u>Mushroom cultivation</u>: Rs. 20,000/= per school programme set up in 40 schools using waste materials by M/s Delhi Tamil Education Secondary School.
- 7. **Solar Signage**: Proposed erection of Signage in 2000 Eco-club schools by M/s Prime Green Free of cost.
- 8. **Distribution of C Ds**: Getting ready for free distribution.

Composition of Eco-club

CHAIRMAN - Principal / Vice Principal

ADVISOR TEACHER - 1 Senior Teacher preferably P G T

CO-ORDINATOR - 1 Teacher Incharge

MENTOR TEACHERS - 4-10 Teachers - 1 or 2 from each faculty of Science /

Humanities / Language / Miscellaneous categories

PRESIDENT 1 Student – (Preferably of senior most class)
VICE PRESIDENT 1 Student – (Preferably of XI or IX class)

SECRETARY 1 Student JOINT SECRETARY 1 Student

TREASURER 1 Teacher – (Assisted by a student)

MATERIAL MANAGER 1 Student

CLASS REPRESENTATIVES 1 or 2 Per Section

MEMBERS All students and all teachers

Duties of Office bearers

- * **President**: He/she calls the meetings; liaises with the teachers, school administration, etc., on behalf of the club; takes a leadership role in organizing events and in planning, managing projects. **Vice President** will perform same duty in the absence of President.
- * Secretary: Keeps the minutes of the meetings; sends copies of the minutes to concerned persons including Principal, parents, etc.; maintains the record of attendance of members; prepares the report of activities at the end of every school term and one at the end of the year. Joint Secretary will perform same duty in the absence of Secretary.
- * Treasurer: He/she collects and manages all the money of the club; keeps accounts of the funds received, spent, etc.
- * Materials Manager: Is in charge of the safe keeping of all the equipment, materials, books, videos, charts, etc., of the club.

These office bearers could be elected by the members. In order to give more children a chance to take responsibility, office bearers could hold office for a period of six months, or one school term.

- Executive body will meet once a month.
- Vice President will report to Mentor faculty.
- One Executive member of each group will write monthly report and give it to Vice President who will present it in Executive body meeting of the month.

Inventories of Eco-club:

Minutes Register
Cash book and Ledger
Stock Register
Certificates of Eco-club
Prizes and Shields
Banners and Play cards
Dust bind or Twin bins
Member badges
Tools and materials

Eco-club Student Badge



Eco-club Monograms





















