

*THE NEW JERSEY STATE*



# MASTER PLAN FOR ENVIRONMENTAL EDUCATION

*Prepared by*

The New Jersey State Council for Environmental Education at Montclair State College  
Upper Montclair, New Jersey 07043

*Approved*

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## MASTER PLAN FOR ENVIRONMENTAL EDUCATION (Excerpts)

The New Jersey State Council for Environmental Education, funded through the Elementary and Secondary Education Act of 1965, is administered by the Newark, New Jersey, Board of Education. Established in September, 1967, the Council was formed to achieve the following six objectives:

1. Develop an evaluation instrument for Environmental Education Programs.
2. Inventory all Environmental and Outdoor Education programs and sites in New Jersey.
3. Assess existing Title III projects in Environmental and Outdoor Education.
4. Determine whether inner city youth are being served.
5. Increase public awareness of the value of Environmental Education.
6. Develop a Master Plan for Environmental Education in New Jersey. . . .

The primary objective of the master plan is to create, in the most rapid and efficient way possible, an environmentally literate citizenry—a citizenry who understand their interdependence with and responsibility for the total environment, and which possesses the knowledge and concern to solve existing problems and to prevent future ones. In the process, the master plan seeks to foster the greater use of the numerous learning environments which exist outside every textbook cover and schoolroom wall, and thereby to offer each citizen the deep satisfaction which comes from really sensing and understanding the daily flow of life around him.

We propose: (1) establishment of a Department of Education Technical Advisory Committee on Environmental Education; (2) encouragement of local school district Concerned Citizens Committees on Environmental Education; (3) strengthening the network of Environmental Education Centers; and (4) support for the proposed legislation included in this master plan . . .

### DEPARTMENT OF EDUCATION TECHNICAL ADVISORY COMMITTEE ON ENVIRONMENTAL EDUCATION (EXCERPTS)

A Technical Advisory Committee on Environmental Education should be established with its primary mission to advise the Commissioner of Education on the implementation of a statewide environmental education program of action.

It would serve the Commissioner of Education by gathering vital information, reviewing Education Department efforts related to environmental education, and recommending a course of action based on the master plan and other data resulting from its deliberations.

This Committee should consist of twenty members. They will be appointed by the Commissioner of Education for three-year terms.

Ten members would be appointed from such groups as: State Department of Education

- State Department of Higher Education
- State Department of Conservation and Economic Development
- State Department of Health
- State Department of Transportation
- State Department of Agriculture
- Rutgers - The State University
- Other New Jersey Colleges and Universities
- County Superintendents of Schools
- School Superintendents Association
- Secondary School Principals Association
- Elementary School Principals Association
- Classroom Teachers Association
- Private and Parochial Schools
- Association for Supervision and Curriculum Development
- Title III Environmental Education Projects

The other ten members would be drawn from the following sources:

- Parents
- College Students
- Secondary Students
- Board of Chosen Freeholders
- Federated Boards of Education
- Municipal Conservation Commissions
- League of Municipal Governments
- County Park Commissions
- Citizen Service Organizations
- Private Foundations
- Business
- Churches
- News Media
- Labor and Industry
- Soil Conservation Districts

The Technical Advisory Committee on Environmental Education should address itself to the following:

- a. Review, with the Commissioner of Education, personnel in existing educational agencies on both the statewide and local levels and recommend effective means for their overall coordination.
- b. Recommend more effective means for utilizing the personnel resources available within the educational community. (Soil conservation service, Agriculture Extension Agents, etc.)
- c. Identify those personnel in the educational community who are responsible for major curriculum changes at the state and local levels.
- d. Devise a means for effectively coordinating the capabilities of education agencies with those of business, civic groups and federal agencies based in the state.
- e. Identify the amount and allocation of those financial resources of the state and federal government now allocated to existing environmental education centers; consider the need for new or improved fiscal arrangements.
- f. Consider the establishment of additional regional environmental education centers and environmental education research and curriculum development centers throughout the state and devise appropriate legislation for their establishment and continuation.
- g. Identify and assess the capabilities of other environmental resources and agencies within the state and recommend means for their coordinated utilization. For example, county park systems, municipal conservation commissions, representatives or local and county natural resource agencies.
- h. Keep abreast of new sources of Federal-State financial assistance programs.
- i. Review existing education programs at all levels to determine their present effectiveness and future potential for creating an environmentally literate citizenry; recommend a system to insure the constant flow of new materials into the school curricula.
- j. Assess new and changing education technologies for their potential use in environmental education programs.
- k. Consider the establishment of a permanent Education Department Environmental Education Division to carry out the recommendations of the Technical Advisory Committee and the Commissioner of Education.
1. Devise a managerial plan and organizational structure for actuating a comprehensive statewide environmental education program for all, educational institutions; determine a feasible timetable' for this effort.

The Technical Advisory Committee on Environmental Education should prepare reports on its findings to be submitted to the Commissioner of Education at regular intervals (monthly or bimonthly). . . .

## ELEMENTARY AND SECONDARY EDUCATION

### *Discussion*

It has been ascertained through a statewide survey, that approximately 200 of the existing 596 school districts are involved in some type of Environmental Education program. The scope and extent of these programs vary considerably among the school districts. Some programs are of an isolated type, a one-exposure approach, and usually are terminal. Others are of longer duration and incorporate many grade levels which use schoolsites, parks, local fields and woodlands, solid and liquid waste disposal plants, town meetings, newspaper stories, and many other community resources in their environmental education studies. If school students, the future voting citizens, are to become involved as effective monitors and change agents of their environment, then the schools must provide more than a peripheral acquaintance with environmental problems. The school curriculum must be modified.

### *Recommendations*

1. The primary concern should be to make the school personnel more aware of the seriousness of current and future environmental problems and of education's role in the restoration of environmental quality. This task would be accomplished through a combination of workshops, conferences and slide presentations involving teachers, supervisors, administrators, and others.

2. An important aspect of a modified curriculum would be the application of student learnings from environmental education experiences to the solution of real environmental problems. Through field experiences with problem areas in the community or region, students could be involved with the source of the problem, its consequences and its possible solution. For example, a new type of homework could be assigned in which youth would involve parents and other adults in collecting data related to a local environmental problem leading to suggestions for its solution. Young people, working with Municipal Conservation Commissions and local Planning and Health Boards could have first hand experiences not available through the usual school curriculum. Students could measure pollution of air and water, predict the life expectancy of existing solid waste disposal areas, conduct land-use surveys, study the history and design of zoning, health and conservation ordinances, evaluate present and predict future water-resource needs, and engage in many other real life educational ventures.

The degree of direct involvement with a problem will be determined by the level of the school group in terms of academic achievement, grade, and reasonable proximity to the problem area. Field trips should include visits to industrial complexes, sewage treatment plants, polluted streams and lakes, farmlands where insecticides are either used or not used, as well as the traditional residence experiences at outdoor centers. Use should be made of the Environmental Study Areas newly established under the direction of the Secretary of the Interior, Walter Hickel, by the National Park Service. Urban districts should utilize the "vest pocket" parks and other surrounding small open space areas available in their communities.

3. An improved means of transmitting to schools information available in many state agencies, about environmental problems, should be developed. Many studies, reports, maps, plans and other data developed by various state agencies could become important, integral parts of the school curriculum if a method of continuous communication could be developed.

## ADULT EDUCATION COURSES

### *Discussion*

It is particularly important that the adult sector which controls the life of the community be reached. Environmental quality is a social problem which adults must be given the opportunity to learn more about if they are to exert effective leadership. Although the mass media have the ability to bring problems to the attention of the public, they cannot be expected to provide fundamental knowledge of environmental principles and processes which citizens must apply in their problem solving efforts. There is, therefore, a need at the community level for an adult oriented survey course on the environment—a course which begins with general principles and which progresses, through the use of local examples, to a consideration of the specific environmental issues of nation, state, and community.

### *Recommendations*

1. At a minimum, one survey course on the problems of the environment should be part of every adult education program. In the design and conduct of the course, use should be made of members of the community who, either by vocation or avocation, are involved in environmental affairs, for example: members of the municipal planning boards, and conservation commissions; representatives of local businesses and citizen action groups; resource specialists of federal and state government. Such personnel might be employed effectively as teachers or guest lecturers for the course.

2. If response to the survey course is favorable, it is recommended that additional courses of a more detailed and specific nature, such as community planning, pollution abatement, and general ecology, be designed and offered, either through the adult education program or through the extension and community service divisions of neighboring institutions of higher learning.

3. Adult Education administrators and staff should examine all course offerings in the adult education program and suggest that the use of environmental issues be incorporated as appropriate. .

## EDUCATION OF THE GENERAL PUBLIC

### *Discussion*

Our society is dependent upon the mass media for much of its information, and the media represent one of the most effective and economical means of bringing environment issues to the attention of the vast body politic. Continuous and reliable coverage of such issues is an important component of any overall plan to increase the public's awareness, knowledge, and willingness to act in the interest of environmental quality.

There are, of course, other productive methods of reaching the general public. Local sponsorship of public forums, educational displays, and similar special events are a proven way of fostering public interest and support. Another example is the film, "Later, perhaps," produced by the New Jersey State Council for Environmental Education. Highlighting the State's pressing environmental problems, the film reveals that at least some schools, through curriculum revision and the use of innovative teaching methods, are engaged in an effort to teach their students about man's dependence upon and responsibility for the environment. The film finally suggests that the audience examine the programs of their own school systems for environmental content.

The means are immaterial, but the general public must be made knowledgeable if it is to understand and support the efforts of government and industry to restore environmental, quality.

### *Recommendations*

1. The Technical Advisory Committee on Environmental Education should consider the development of a comprehensive state-level public education program to keep the public continually informed of the environmental problems of state and community, and to foster increased citizen participation in the solution of such problems. This dissemination effort could include such vehicles as forums, lectures, magazines, newspapers, films, radio and television programs. The New Jersey Public Broadcasting Authority, launched in January, 1970, might be particularly valuable in this respect.

2. The Commissioner of Education and the Technical Advisory Committee should encourage the development of local public education programs. There is an infinite number of ways a local public education program could be conducted and it is worthwhile to mention a few.

Local newspapers should be urged to cover environmental issues and possibly even carry a weekly or bi-weekly column devoted to the environment.

Educational displays should be constructed and placed in local business establishments and public buildings.

Evening forums on local issues should be organized and speakers recruited from the ranks of local and county government, business, county and local based governmental resource agencies schools and colleges, civic and other groups.

Walking and driving tours of the local region should be developed to acquaint citizens with the environmental challenges and opportunities extant within their home communities. These tours, conducted on a bi-weekly or monthly basis, would identify specific environmental problems as well as follow through on their elimination.

3. Hopefully, these facets of a public education program would lead to corrective action on two fronts: to urge the general public to maintain awareness of environmental issues and the course of their alleviation; and to spur the contributors to local pollution and other forms of environmental deterioration, not the least of whom is the

general public itself, to initiate and maintain measures eradicating the environmental problems lest further despoilation occurs.

## LOCAL CONCERNED CITIZENS COMMITTEE

### *Discussion*

As citizens become alerted to and concerned about the problems associated with the environmental crisis, they will demand greater participation in the decision-making process effecting solutions to these problems.

These citizens will also want to know what is being taught in the schools relative to environmental problems. They will naturally want young people to move into adulthood with a thorough understanding of the causes and consequences of the current problems, and their solutions. Inevitably, these citizens will want to insure that the school curriculum is relevant to the world that young people face, and will face.

Municipal Conservation Commissions, recommended by legislation enacted in 1968, are being formed throughout the state. Kindred groups, such as Survival, Inc., Friends of the Earth, and other environmentally related organizations, have directed attention toward environmental education programs in the schools.

### *Recommendation*

The Commissioner of Education should urge each school district to create a Concerned Citizens Committee on Environmental Education. This committee would serve 'as liaison between environmentally related organizations, such as those mentioned above, as well as local established governmental agencies, and the local schools. This committee would also assist the school district in the study of local problems and in the development of pertinent curriculum materials. It would report regularly to the Superintendent of Schools, Board of Education, or a designated administrative staff member. Local businessmen, representatives of labor, government, industry, medicine, the clergy, conservation commission, school personnel, and others who are in a position to contribute services and advice for those planning programs in environmental education should be invited to serve on the Concerned Citizens Committee.

## HIGHER EDUCATION

### *Discussion*

College and university students have become increasingly concerned about the environment. The national teach-in (scheduled for April 22, 1970) will mark the beginning of a period of intense examination of environmental quality by the student body. There is little evidence however; to show that our institutions of higher education are responding to the challenge of the environment in any planned manner, either the undergraduate or graduate level.

In 1968 the New Jersey State Council for Environmental Education appointed an ad hoc committee to review this situation in the colleges and universities of the state. Generally, it found that environmental understandings and issues are not being incorporated into general education and specialized curricula. When environmental quality was discussed, it was usually restricted to a few specialized and technical courses. An inter-disciplinary treatment of the subject was found to be a rarity. While the ad hoc committee recognized the need for highly specialized courses of study, it stated that there was a compelling need for a pre-professional and liberal arts program that would inform students of one of society's most pressing problems.

At Glassboro, Trenton and Montclair State Colleges, graduate programs have been established to prepare teachers as environmental education specialists. The initial programs were made possible by the Education Professions Development Act, which provided stipend support for experienced and perspective teachers and institutional assistance for each of the three colleges. This cooperative program has produced approximately forty graduates who have a master's degree in Conservation and Outdoor Education. Presently, seventy students are enrolled in similar, but non-federally, supported programs

For nearly twelve years, teacher education students at the state colleges have spent five days in residence at the New Jersey State School of Conservation in Branchville. Attendance at the school was made a graduation requirement in 1957 by action' of the State Board of Education. When the Board of Higher Education assumed control of the state colleges, this requirement was made optional. Presently, only students from Glassboro and Trenton State Colleges participate in the program. In addition, during their junior year practicum experience, Glassboro students are given an opportunity to work with and observe youngsters at the Conservation and

Environmental Science Center at Brown's Mills. Several State Colleges and Rutgers (the State University) have offered in-service conservation and environmental education courses and workshops at various locations throughout the state. These courses are designed to acquaint teachers with environmental problems and to assist in curriculum development.

### *Recommendations*

1. The colleges, community colleges, junior colleges; and universities of the state should re-examine their existing statements of educational objectives to insure that the concept of harmony between man and environment is in some way expressed as an essential goal.

2. Each institution of higher learning should establish a faculty-student committee on environmental education. The purpose of the, committee will be to explore and recommend desirable modifications of present course offerings and to develop new courses at the introductory and intermediate levels. The establishment of interdisciplinary courses on the environment should be especially encouraged.

The faculty-student committees should promote and facilitate independent study programs and similar course structures in which students would be able to work with local planning boards, health boards, conservation commissions, and similar entities. Such courses would not only be of tremendous assistance to local communities but would furnish students with invaluable experience and perspective.

3. Offerings at community and junior colleges should be expanded to include environmental education courses as a general or liberal education requirement, and also as terminal vocational training programs to prepare students as technicians to work in the emerging field of environmental quality . . .

*The excerpts in this pamphlet were reprinted from:*

### **THE ENVIRONMENTAL PROBLEM:**

**Selections from Hearings on the Environmental Education Act of 1970**

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Education Consortium, Inc.  
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