Condensed in this collection are ideas which should aid planners in developing state master plans for environmental education. Based on a review of such plans from eleven states, comments are directed toward five topics: (1) the need for an acceptable definition of environmental education, (2) some commonalities in the goals of environmental education as expressed by states in their environmental education plans, (3) major characteristics of a state environmental education plan, (4) a process for writing a state environmental education plan, and (5) a suggested outline of a state environmental education plan. The comments/ideas included in the collection were proposed at the State Environmental Education Master Planning Conference held in Estes Park, Colorado, May, 1973. (BL)
State Environmental Education Master Planning

Estes Park, Colorado

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by

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Having had the opportunity of reviewing State Environmental Education Master Plans from eleven states (Alaska, Colorado, Florida, Illinois, Massachusetts, Michigan, Minnesota, Ohio, New York, Texas, and Wisconsin), I would like to bring forward some comments on the following topics for discussion purposes:

1. Need for an acceptable definition of Environmental Education.

2. Some Commonalities in the goals of Environmental Education expressed by States in Their Environmental Education plans.

3. Major characteristics of a State Environmental Education plan.

4. A process for writing a State Environmental Education plan.

5. A suggested outline of a State Environmental Education plan.
Need for an Acceptable Definition of Environmental Education

The roots of the environmental education movement go back many years. However, its emergence into prominence has occurred during the past seven years. During this time period many separate philosophies and definitions have appeared. Yet little effort has been made to bring diverse views together in an effort to articulate a philosophy, with accompanying framework and guidelines, helpful to individuals, organizations, associations, or institutions interested in the concept of environmental education. For these reasons, many programs that previously aligned under other educational "banners" have changed their names to environmental education without any modification in program focus or orientation.

Many questions regarding environmental education have been raised in recent years, yet few answers provided because the field was new and still undergoing important developments in its practical application and theoretical foundation. Some of the more penetrating questions asked in recent years have been:

What is environmental education? What are the goals of environmental education? How broad in scope should environmental education be? What does environmental education advocate? What fields should environmental education draw upon? What are the priorities of the environmental education movement? Is environmental education both content and process oriented? What doesn't environmental education include?

The following statements are excerpts from State Environmental Education Master plans that relate to the goal of Environmental Education. The statements provide some indication as to how Environmental Education is being perceived across our nation. Are there any commonalities?

Environmental education is the basic process leading toward the development of a citizenry that is aware of and concerned about the environment and its associated problems, and that has the knowledge, skill, motivation, and commitment to work toward solutions to current and projected problems. (Michigan)
Environmental education emphasizes problem-solving techniques aimed at real problems in the local community as they are felt today or are anticipated for the future. (Michigan)

Environmental education is interdisciplinary, drawing its content from all fields -- the humanities, the social sciences, economics, psychology, engineering, and the biological and physical sciences. (Michigan)

Environmental education involves the recognition and clarification of the beliefs and attitudes that form environmentally wise values. Only when an individual understands all the implications of holding certain beliefs, attitudes, and values is he in a position to decide rationally whether or not to revise them. (Michigan)

The goals of environmental education in the State of Michigan are to develop in people

1. an awareness, understanding and concern for the environment with its associated problems and

2. the knowledge, skill, motivation, and commitment to work toward solutions to these current and projected problems.

To achieve the above goals, structures and processes are needed to help individuals and groups:

1. Obtain an understanding that man is an inseparable part of an environmental system and that whatever he does alters his surroundings.

2. Obtain a basic knowledge of how environmental problems can be solved, and recognize the responsibility of individuals and each segment of society to cooperate in their solution.

3. Develop thinking and action skills for the prevention and correction of environmental abuses. (Michigan)
The process of developing a citizenry that is (1) knowledgeable of the interrelated biophysical and sociocultural environments of which man is a part; (2) aware of the associated environmental problems and management alternatives of use in solving these positions; and (3) motivated to work toward the maintenance and further development of diverse environments that are optimum for living. (Wisconsin)

"Environmental education" means "the educational process dealing with man's relationship with his natural and manmade surroundings, and includes the relation of population, pollution, resource allocation and depletion, conservation, transportation, technology, and urban and rural planning to the total human environment." Be it further recognized for the purposes of this Act that environmental education means the educational process of developing concepts, attitudes, values, and actions appropriate to fostering man's harmonious relationship and interdependence with his natural and manmade surroundings, including the social, political, cultural, economic, aesthetic, and bio-physical dimensions of the total environment. (Wisconsin)

Environmental education is concerned with helping students develop skills for perceiving man-environment relationships and analyzing the many and diverse factors that attend man-environment problems in search of solutions that they are willing to help implement. (Massachusetts)

Environmental education is the process of developing a citizenry that is:

1. Knowledgeable of the interrelated biophysical and sociocultural environments of which man is a part;

2. Aware of the associated environmental problems and alternatives to be considered and applied in dealing with these problems; and

3. Motivated to work toward regaining and maintaining optimum environmental conditions for healthful living. (Ohio)

"Environmental education" is conveniently and operationally circumscribed as the process of recognizing and clarifying the values, attitudes, and concepts necessary to understand and appreciate the interrelatedness among man, his culture, and his biophysical environment. Environmental education, moreover, entails practice in decision-making about issues concerning environmental quality. (Illinois)

Environmental education is the process by which citizens are made knowledgeable of the natural and man-made systems which support and affect the existence of life-forms. This process should lead to a personal sensitivity and understanding of the intricate relationships between man and his environment, and should influence the identification of problems and the exploration of alternative solutions. (Texas)
Environmental education is a life-long process. It is a way of looking at life, fostering awareness of other life and of inter-relationships, learning to recognize the effects (both good and bad) man has on his physical and biological surroundings, and the responsibilities he must accept for the mere fact of his presence and his activities in the environment. It should enable him to make sound ecological decisions and foresee their consequences; to make value judgments, and act accordingly. Environmental education encourages development of life values and a style of living which minimizes destruction and maximizes those relationships that enhance life. It is learning how to contribute to the quality of life, and fosters the constructive use, rather than exploitation, of the environment. (Minnesota)

Environmental Education in Colorado be that education which:

1. studies the interdependencies between man and other living and non-living elements of his environment;

2. promotes an understanding of the capability of individuals to significantly alter their life-support system, both positively and negatively, and therefore illustrates the need for them to assimilate values and attitudes that are conducive to the maintenance of a quality environment;

3. emphasizes that there are no simple solutions to complex environmental problems, that trade-offs are involved in all decisions, and that the socio-economic effects of all corrective actions must be properly accounted for before such actions are taken;

4. makes accurate environmental information that presents all sides of environmental issues available to individuals so that they can rationally decide for themselves their own positions;

5. teaches the skills needed to properly identify environmental problems and to intelligently work toward their solutions;

6. provides real-life learning experiences for the individual in a variety of learning environments other than lectures;

7. is part of all academic disciplines rather than a course in itself and

8. furnishes information about activities through which individuals can become personally involved in improving environmental conditions. (Colorado)

Environmental education is a multi-disciplinary approach to the study of man's relationships with his fellow man in his natural and manmade surroundings, including the relation of population, pollution, resource allocation and depletion, conservation, transportation, technology, and urban and rural planning to the total human environment.

Instruction is based on broad ecological concepts taught through inquiry and issue-oriented methods, and illustrated with local examples.
It strives to produce a citizenry that understands ecological principles and environmental problems, can rationally evaluate options for preventing and solving these problems, and is motivated to work for their solution.

Environmental education is a life-long process which will, through every aspect of formal and non-formal education help each citizen develop a philosophy and life style which is in harmony with the concept of man as a participant with rather than a master of nature. (Alaska)

Environmental education is aimed at providing optimum conditions for the development of citizenry which:

1. Recognizes the earth's biosphere as its environment.
2. Recognizes mankind as a part of a system made up of people, culture, and man's physical and natural surroundings.
3. Appreciates its environment as a living life support system.
4. Accepts the responsibility for the present condition of its environment.
5. Appreciates man's ability to control, use, preserve, and destroy his environment.
6. Responds to economic and political forces, social pressures, and cultural value systems with sound constructive environmental decisions. (Florida)

Environmental education is the process that fosters greater understanding of society's environmental problems and also the processes of environmental problem-solving, valuing, and decision-making. This is accomplished by teaching the ecological relationships and principles that underlie these problems and showing the nature of the possible alternative approaches and solutions.

That is, the process of environmental education helps the learner perceive and understand environmental principles and problems, and enables him to identify and evaluate the possible alternative solutions to these problems and assess their benefits and risks. It involves the development of skills and insights needed to understand the structure, requirements, and input of interaction within and along various environmental entities, subsystems, and systems (Handbook, Office of Environmental Education, USOE, 1973).
Some Commonalities in the Goals of Environmental Education
Expressed by States in Their Environmental Education Plans

1. Environmental Education is aimed at helping individuals to become knowledgeable concerning the total environment (natural and man-made) and associated problems (physical, social, economic, political, and cultural).

2. Environmental Education is a process-oriented approach, and is aimed at assisting the learner to become informed and learning how to be effective in solving and preventing the full range of environmental problems.

3. Environmental Education includes both formal and non-formal education.

4. Environmental Education is interdisciplinary in approach.

5. Environmental Education is aimed at increasing the learner's interest in, awareness of, and sensitivity toward the environment.

6. Environmental Education is aimed at helping individuals to recognize and clarify personal values that relate to the environment.

7. Environmental Education is aimed at developing thinking and action skills for the prevention and correction of environmental abuses.

8. Environmental Education emphasizes problem solving of real problems in the learner's immediate environment (but does not neglect state, national, and international issues).

9. Environmental Education is aimed at motivating the individuals to act upon his environmental concerns.


11. Environmental Education is aimed at helping the individual to understand that he is an inseparable part of an environmental system and whatever he does alters his surroundings.

12. Environmental Education is concerned about the social implication of environmental decisions.
Major Characteristics of an
Environmental Education State Master Plan

1. The plan should provide the framework, guidelines, and processes for coordinating and evaluating all environmental communication, education, and information activities in the state.

2. The plan should be comprehensive and involve all segments of society -- all client groups (agriculture, business, industry, citizen organizations, elementary and secondary schools, government, higher education, labor, mass communication, professional and trade organizations.)

3. The plan should have a "grass-roots" foundation -- a means by which citizens can affect process and product of planning effort.

4. The plan should be long-range (futuristic in approach) as well as the here and now. The plan should anticipate cultural problems and opportunities.

5. The plan should identify Environmental Education needs in the state.

6. The plan should establish Environmental Education goals and objectives. The objectives should be specific and measurable statements and should relate to the identified Environmental Education needs of the state.
7. The plan should provide reset of overall and specific recommendations designed to achieve the stated goals and objectives.

8. The plan should identify constraints in achieving stated recommendations.

9. The plan should identify strategies to help overcome constraints in order to achieve stated goals and objectives.

10. The plan should suggest priorities for distributing scarce resources.

11. The plan should have a built-in flexibility and sensitivity to changing state needs.

12. The plan should provide information regarding what resources are available in the state -- human, programs, facilities, funds, etc.

13. The plan should recommend an organizational structure to coordinate statewide programs.
14. The plan should provide for a process to evaluate the effectiveness of state Environmental Education planning efforts in achieving stated objectives and a feedback mechanism to update the plan.
A Process for Writing a State Environmental Education Plan

1. Governor should appoint a broad-based task force to write a comprehensive and long-range plan.

2. The task force should make an assessment regarding Environmental Education resources (human, programs, facilities, funds, etc.) in the state.

3. The task force should make an assessment of current Environmental Education needs in the state.

4. The task force should formulate state Environmental Education goals and objectives designed to meet current Environmental Education needs in the state.

5. The task force should provide for a public review process of the state Environmental Education goals and objectives.

6. The task force should rewrite state Environmental Education goals and objectives based upon public review.

7. The task force should hold regional meetings in different sectors of the state to provide each component group (business, youth organizations, higher education, etc.) the opportunity to identify constraints, and to make recommendations and suggest strategies regarding ways to achieve stated goals and objectives.

8. The task force should write a preliminary draft of the State Environmental Education plan based upon their discussions and input from the regional meetings.

9. The task force should hold a State Environmental Education Conference to react to the stated Environmental Education goals, objectives, recommendations, constraints, strategies and priorities.

10. The task force should rewrite the State Environmental Education Plan based upon their discussions and input from the State Environmental Education Conference.

11. The task force should provide the opportunity for the State Environmental Education Plan to be reviewed by citizens, groups, and organizations from throughout the state.

12. The task force should rewrite the State Environmental Education Plan.

13. The task force should submit the State Environmental Education Plan to the governor.

14. The task force should distribute the State Environmental Education Plan to citizens, groups and organizations throughout the state.
15. The task force should have the State Environmental Education Plan evaluated by an independent evaluation team to determine the extent to which the stated objectives in the plan are achieved.

16. The task force should provide the mechanisms to implement the recommendations outlined in the State Environmental Education Plan.

17. The task force should make certain that the State Environmental Education Plan is revised and rewritten, if necessary, to accommodate changing needs and new information.
A Suggested Outline of a State Environmental Education Plan

1. Title Page

2. Letter of Transmittal to Governor or Appropriate State Official by Task Force Chairman

3. Letter from Governor or Appropriate State Official Stating his Acceptance of the Plan

4. Task Force Members

5. Task Force Staff

6. Task Force Consultants

7. Forward

8. Summary

9. Table of Contents

10. Chapters

   a. Major Characteristics of a State Environmental Education Plan

   b. Development of a State Plan

   c. What is Environmental Education

   d. Environmental Education Problems in the State

   e. Environmental Education Needs of the State

   f. Environmental Education Goals and Objectives of the State

   g. Recommendations and Strategies to Achieve State Environmental Education Goals and Objectives

      1) Overall

      2) For each component group

   h. Evaluation Procedure of the State Environmental Education Plan

11. Glossary

12. Appendices (including Environmental Education resources of the State)