# ENVIRONMENT POLICY EDUCATION

John C. Frey, Director Institute for Research on Land and Water Resources Pennsylvania State University

#### DEVELOPMENT OF INTEREST

The general public does not possess a high interest level in environment policy matters. However, this apathetic attitude is not difficult to explain. The word *environment* is so vague as to be almost meaningless; many of the harmful effects of environmental pollution are not readily perceived, and man adjusts with such ease to many forms of environmental pollution that he does not realize how much his welfare is impaired. In all, environmental improvement seems to hold a much lower priority in our scheme of values than does the production and consumption of life's daily necessities.

Educators must, therefore deliberately create an interest in environmental problems. If educators "wait to be called," the public will not be alerted to many emerging issues in this field. Today's problems of environmental pollution link both with the past and the future, and not many individuals seek answers to questions which cover such a vast time span. Some of Pennsylvania's acid mine water problems were created decades ago by mining interests which had little concern for environmental pollution. Today, there is no one to hold responsible for these past actions.

Only recently have educators thought to question the age-old doctrine that natural resources are indestructible and nonreproducible, and that man must accept his environment as he finds it. Today we are beginning to recognize that natural resources can be adapted to better serve human needs. In fact, what is now measured as human progress is largely the change that we have created in our natural environment to make it better serve man's desires.

For these reasons, educators cannot be completely neutral about developing a public interest in environment policy. Granted that people still have the right to decide if they want to learn more about a particular subject, it is the educator's responsibility to provide the people with enough information to make an intelligent decision. Environment policy education is one area where leadership from the academic community is needed.

Interests stem from certain natural impulses, urges, or drives, such as altruism, desire for approval, competition, self-preservation,

ownership, gregariousness, love of nature, self-advancement, etc. It is suggested that educators appeal to these natural impulses by presenting as much information as possible on the effects of environmental change.

The range of subject matter is wide, including the consequences of essentially every input-output relationship known to man. Man cannot live and produce goods without creating wastes and polluting his surroundings. The effects of production processes on such natural resources as air, water, soils, plants, wildlife, marine life, minerals, and insects seem to be receiving some attention at the moment, but the quality of capital resources should not be overlooked. In the final analysis, it is the effect of environmental quality on man himself (mentally, physically, biologically, and economically) which arouses our deepest emotions.

We as a people have good reason to be concerned about environmental quality. The water that we drink can cause microbial diseases. The air that we breathe is responsible for pulmonary troubles and possibly even death from asphyxiation. The geological formation on which we live shows a correlation with the incidence of cancer. Our food intake proves to have a relationship with mental retardation and indolence. Sounds that we hear are so loud that they create deafness. The radiation in the atmosphere threatens to change the genetic makeup of our children. Our crowding with others results in mob hysteria and delinquency. Our jobs are in jeopardy because of creeping resource costs. The landscape that we should be enjoying is monotonous, ugly, and depressing. We should develop public interest and awareness in such matters.

### **DEVELOPMENT OF IDEALS**

A second task in environment policy education is to develop ideals for environmental improvement. *Ideals* are the goals for which we strive. As applied to the field of environmental quality, ideals are what we want our surroundings to become.

We know some of the ideals of environment policy as quality standards. Emerging water quality standards are a good example, although no one seems certain at the moment why these standards are what they are or how broadly they should be applied.

One of the difficulties with ideals is that they form a sequence of steps from the simplest end-in-view in the physical or biological world to the highest aim possible in the realm of social or political welfare. Ends-in-view throughout the sequence may not be consistent with one another, and what is believed to be needed at one level may not be desirable when the next higher step is considered.

Whether educators should be entrusted with the creation or destruction of ideals is still questioned in some circles, but there seems to be general consensus that educators should lead people to adopt ideals and that the ideals adopted should grow out the people's own thinking. Without quarrel, it is recognized that our society must have ideals, that individuals in society must help select these ideals, that the ideals selected must be attainable in some reasonable degree, and that the ideals must be held by the public with sufficient conviction and dedication to generate action.

As matters stand, performance standards for environmental improvement are being legislated without full public acceptance, without knowledge whether such standards can be attained, and without full knowledge of the resulting values and costs. The acceptable quality standards set by law should be determined by the aspirations of our people. It is not enough for our educators to explain what the law is. They must develop in people a sense of purpose which will help determine what the law should be.

What the academic community can do is provide for group discussion and analysis of environment policy goals and bring into such instructional programs the full range of alternatives. The real challenge is to bring about a consideration of the social and economic consequences of environmental improvement, as opposed to strictly physical and biological interpretations. To this end, it is strongly proposed that the services of social philosophers, and even artists, be solicited rather than relying entirely on the predications of science technicians or engineers.

#### DEVELOPMENT OF UNDERSTANDING

A third task in environment policy education is to develop understanding of what can be done to improve man's surroundings. Once ideals are established, understanding paves the way for a release of actions to attain them.

Since understanding means a grasp or comprehension of relationships, it is essential for environment policy educators to give as much attention as possible to general truths, principles, or laws. Such knowledge is needed to explain why things behave as they do. Accordingly, an effort should be made in instructional programs to impart information on whole systems of relationships in the field of environmental quality, as opposed to a barrage of facts or random applications. Knowledge about our environment is changing very rapidly, and the only way that both students and educators can keep pace with the changes is to concentrate on general propositions which carry over from one period to the next. Otherwise, the payoff of our educational programs may not be worth the time expended. This approach does not rule out the application of knowledge time and again, which most certainly is important, but the approach does reject programs of study which never get down to fundamentals. In short, our people must be able to *understand* what they *know* about their environment.

Matters pertaining to our environment are interdisciplinary in nature. They cannot be fully understood by studying the subject matter of any one branch of knowledge. The "open-ended-ness" of the environment policy field may mean that some of our educators must recast themselves as ecosystem scientists, rather than serve as economists, sociologists, or other narrowly defined specialists.

Also it may mean that some of the best minds in science, technology, and the arts should be brought together to develop the curriculum for a better understanding of environment policy problems. Researchers are experimenting with many new interdisciplinary approaches. Educators also may find that some of these interdisciplinary approaches are desirable.

## **IMPLEMENTATION**

In casting around for an organizational unit to undertake the tasks of environment policy education, we must not overlook the qualifications of the Cooperative Extension Service. This organization has a long record of successful accomplishment in the education field and could play a vital role in transmitting ideas and information on environment policy issues. To prepare for such an undertaking, it is suggested that the Extension Service consider summer institutes for extension educators, traveling lecture teams, interchanges of personnel between universities and with other public agencies and private foundations, and special field stations to sponsor training programs.

A further suggestion offered for those in the field of agriculture who propose to work in environment policy education is to develop courses of study which will take up knowledge in a coherent order over an extended series of meetings. Environment policy is a new field, and knowledge about it cannot be taught in a random manner. Unlike agriculture, this field does not enjoy built-in appreciation and understanding. A second suggestion for those interested in policy education is to cover environment policy problems both inside and outside of agriculture. Traditionally, agriculture has been regarded as the hero rather than the villain in matters pertaining to environmental quality. That is, agriculture has always held the image of clean air, clean water, scenic beauty, lack of crowding, etc. Yet agriculture is both a producer of wastes and a disturber of the balances of nature. Farms in suburbia have taught us that agricultural surroundings are not always pleasant. Also, agricultural land has become a dumping ground for many of the residues and wastes that the rest of society finds objectionable—that is, for trash, garbage, sludge, industrial wastes, sewage effluent, wrecked cars, machinery, shanties, and the like. It would be wise to examine the control of these pollutants at their source. In other words, whatever detracts from the living environment of rural people is appropriate subject matter.

#### SUMMARY

What can we do on environment policy education? We can create a public interest in environmental quality; develop ideals, or performance standards, for environmental improvement; and build an understanding of ways and means of changing our surroundings to produce more desirable effects. Who should undertake such an educational program? It is strongly recommended that it be undertaken by public affairs specialists of the Cooperative Extension Service.