



# Environmental

THE environmental crisis has recently been much in the news. Tardily, but hopefully not too late, we have become aware of the plundered planet earth and of man's growing challenge to survive thereon. Awakened to the situation, the nation must persist in efforts to improve and maintain environmental quality at a high level. Coming generations need counsel in avoiding the mistakes we have made and in discharging stewardship that will ensure a decent future for mankind. The secondary school has a significant role to play in this endeavor.

## The Environmental Crisis

Environmental problems have developed chiefly because of man's rapaciousness. The belief that natural resources are inexhaustible characterized the early development of this nation, a period replete with examples of extravagant waste of forests, land, minerals, water, and wildlife. Human behavior in this decade contributes litter, pollution, improper use and depletion of resources, and a continuing destruction of natural balances and cycles essential to life. A few cases will amplify this statement.

Air pollution is already critical and is worsening across the nation, especially in large cities and heavily populated areas. One report indicates that a total of from 8,000 to 10,000 tons of gases, vapors, and solids is cast daily into the air of large cities, two-

thirds of it from autos, where it saturates the lungs of about two-thirds of the nation's population.<sup>1</sup> An analysis of New York City's atmosphere reports that the citizen on the street daily inhales into his lungs toxic materials equivalent to that in almost two packs of cigarettes.<sup>2</sup> The adverse effect of these conditions on human health and on other forms of plant and animal life is increasingly brought to public attention.

The complicated problem of resource adequacy in the United States also presents considerable challenge.<sup>3</sup> Maintaining an adequate supply of high quality water involves ecological, sociological, and economic factors. Water depletion and pollution are already very serious in some areas.<sup>4</sup> The sad plight of Lake Erie is well known; not so widely recognized is the growing pollution of streams which in turn sicken the world's oceans. Related to various phases of the environmental crisis is the ever present urge to dam streams and develop wild areas for economic advantages, despite public sentiment to the contrary.<sup>5</sup>

<sup>1</sup> Robert Rienow and Leona Train Rienow, *Moment in the Sun*. New York: Ballantine Books, Inc., 1967, p. 155.

<sup>2</sup> *Ibid.*, p. 141.

<sup>3</sup> See: Hans H. Landsberg, *Natural Resources for U.S. Growth*. Resources for the Future, Inc. Baltimore: Johns Hopkins Press, 1964. Chapter 3.

<sup>4</sup> Rienow and Rienow, *op. cit.*, Chapter 7.

<sup>5</sup> See: Elizabeth B. Drew, "Dam Outrage." *The Atlantic* 225 (4): 51-62; April 1970.

# Quality and Secondary Education

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Demands upon the land projected to the year 2000 are frightening. Total estimated requirements by that date exceed the entire area of the 48 contiguous states by 50 million acres (actually 110 million, if 60 million acres of available wasteland are not included in the area).<sup>6</sup> For needed forest products alone we will require an increase of some 300 million acres; for recreational use in national parks and forests and state parks, an added 90 million acres; and for airports and highways, another 4 million.<sup>7</sup>

A rapidly growing population clearly magnifies the environmental crisis and adds tremendously to the pressures on the earth, some of which have been cited. With population in the United States now doubling in less than a single lifetime and world population doubling twice in this period, the future could be grim.<sup>8</sup> An unlimited population and a high quality of humane living simply are not compatible. Major famine in some parts of the world appears unavoidable in the seventies, and standing room only on the earth is gradually coming closer. We shall never reach it, of course, for extreme crowding will result in life-destroying disease, starvation, and violence long beforehand. No nation will be immune to the touch of madness and

death that sweeps across the earth at that time.

In short, our terrestrial resources are basically finite, while man's appetite and capacity for reproduction and destruction seem infinite. Coupled with the mismanagement of technology and the pressure of affluence for more of everything, man's lack of moral values and weakening self-restraint are leading us down a road toward marginal living, if not extinction. Wisdom and action are essential now to redirect us on a saner course. Education is a fundamental force to bring into being and to maintain this new direction and needed dedication. The present public concern, born largely of crises, may otherwise subside all too quickly.

## Contributions of the Secondary School

Fundamentally, education must help man to view himself as belonging to the earth rather than the converse. This tie to a common planet shared by all humanity underlies a growing cultural interdependence that is inescapable. Within this framework, ecological and sociological considerations require as much attention as economic and political factors, perhaps more. Where there is a conflict of humane and material values,

<sup>6</sup> Landsberg, *op. cit.*, p. 173.

<sup>7</sup> *Ibid.*, pp. 169-74.

<sup>8</sup> See: Paul R. Ehrlich. *The Population Bomb*. New York: Ballantine Books, Inc., 1968. 223 pp.

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the former must prevail. Such conflict is ever more likely as natural resources are depleted and population pressures mount.

The secondary school may do much, most of which requires reordering of priorities and refocusing of objectives, content, and experience rather than adding anything. The subjects now taught have a great deal to yield, indeed are already making a significant contribution in some places. The first step, therefore, is one of accepting the great importance of environmental study and devoting the attention needed to ascertain what may wisely be brought about that is not already in process.

Second, articulation with the elementary school should be reviewed. In the elementary grades much is often done with nature and the human habitat, with some emphasis on attitudinal development supportive of environmental quality. Secondary schools should build on what has gone before. They should not be unduly concerned about collegiate pressures. Environmental problems afford a center around which many subjects, such as biology, geography, chemistry, literature, art, political science, sociology, and economics, to name a few, may be brought together in a meaningful manner. In this way learning has a greater chance of making a difference in living than when subjects are taught in relative isolation from man's pressing problems. The concern for articulation will also reveal gaps and other conditions to be strengthened at either or both levels.

Third, greater emphasis is needed on an understanding of man and the drives that underlie his behavior and his striving for identity. The control and satisfaction of these forces in a complex and changing society are critical to both individual and group well-being. Self-discipline in all human and natural relationships assumes growing significance with population growth and crowding. The inability of external force to control mass violence has been demonstrated again and again. Social cooperation and sharing are in growing demand. The study of group behavior thus complements the study of the individual, all of this endeavor being pro-

jected against the environment and its restraints on man's behavior. In this same context, the roles of custom, legislation, law, and ritual are important in the direction and control of individual and group behavior.

Fourth, the study of the earth in its relationship to man, technology, life styles, the quality of living in developed and underdeveloped nations, population growth, and survival is vital. Resources need consideration in terms of supply and demand, now and later. Federal and state agencies charged with responsibility for natural resources deserve attention. All utilization and development of resources, public and private, should be reviewed against ecological and sociological effects. Resource recycling, the reduction of resource drains, the application of technology to resource problems, and related means of environmental resuscitation are crucial. Energy demands, living standards, and the limitations of the earth should not be neglected.

Fifth, there is need to stress values that are consonant with environmental quality and happy, successful living. For example, physical fitness and habits of healthful living are paramount in today's world. The physical and the emotional, as well as the intellectual, dimensions of man deserve a place in the curriculum. Common courtesy, decency, and enough custom and ritual to enrich human relationships are needed in a society all too prone to abrasion and rudeness. We do too little in initiating youth into adulthood. Responsibilities merit parity with rights. Self-restraint and a personal sense of obligation and responsibility are crucial in reducing litter, pollution, improper and needless waste of resources, and related human misbehavior. Here again, many school activities and subjects have much to offer, but relationships require attention.

Sixth, and perhaps most significant of all, is the need for models to emulate. Teachers, using the term broadly, who are vitally alive and whose teaching brings imagination and excitement to learning are indispensable. If their lives and their teaching reveal a grasp of environmental problems to which their subject fields are clearly related in a con-

vincing manner, the battle is more than half won.

Both the teaching profession and the

Though he journey to the moon and the stars, the earth is man's home and it is here that he returns. On this tiny planet in infinite space he abides in increasing numbers as the terrestrial sources of his life diminish, largely at his own hands. Among the many demands made of education, none is more fundamental or pressing than that of the

public need to take a very hard look at the caliber and performance of those who now stand before our children and youth.

environmental crisis. The secondary school deals with youth of an age and development that permit teaching, learning, and constructive action of great consequence. To neglect this opportunity is to default seriously and thereby to condone and to accelerate the man-made deterioration that is gradually destroying the almost forgotten earth.

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