
RESOURCES MANAGEMENT—WHOSE RESPONSIBILITY?

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The theme of this symposium—"Rampant Reproduction and Renewable Resources"—is most definitely a timely one. The earlier contributors have done extremely well in highlighting some of the problems involved. This paper seeks to give consideration to the question of whose is the responsibility for resources management? There seem to be several approaches to what must be the fundamental answer to that question.

To no small extent, our present problems have roots deeply anchored in the past. Yet old methods and old efforts, in far too many instances, have proved to be ineffective, inadequate, and inappropriate. Let us for a moment consider some of the background factors which have played important roles.

When the colonists came to America, they set in motion a chain of events that still is resulting in profound changes in this country's environment. At first, as pioneer settlers fanned out from the seaboard colonies, the wilderness was a challenge. Indeed, the unbroken expanses of forests in eastern United States were menaces to be conquered. Space for croplands had to be cleared. Animals that preyed upon livestock and poultry were killed without concern. Rivers

were dammed and diverted. Deposits of coal and iron and lead were mined without regard to the surface soils. In short, as the tide of people moved westward, national growth was dependent upon the land and its resources. Use of these resources underpinned the wealth of individuals, families, and corporations—and of the Nation itself.

This "development" was adjudged to be a good thing for the young Nation. As a result, national policy encouraged it. The Federal Government gave land away, and encouraged settlement through railroad grants. It was liberal with timber and minerals. Few controls were placed upon water developments. The resources seemed limitless—like the great flights of passenger pigeons and waterfowl—and few persons were concerned about conserving them.

Stated in the briefest terms, our predecessors handed down to us a policy that, in effect, said: industrial and agricultural development is good and beneficial—do not obstruct or hinder it. This, in part, created a reverence for the Almighty Dollar that we are still attempting to overcome today. Expressed in concrete terms, this policy sanctioned the use of streams and lakes as open sewers, and, for want of investment in treatment plants, we have inherited problems like a dying Lake Erie. Because clear-cutting was an economical method at the time, forests were devastated and oncoming generations inherited eroded lands and silted streams. Because reclamation measures cut into profits, strip-miners were allowed to extract minerals without healing their open scars upon the land. Rivers were dammed for power to the exclusion of consideration for other values. Man-made mountains of junk arose. Beauty of the land was obscured by signs and litter, and by vast networks of wires and cables strung between forests of utility poles. Near-permanent hazes of polluted air settled over many major cities.

These developments constituted "progress," but they came at prices only now being realized. Payment is now being exacted in the costs of governmental agencies needed to administer control of water pollution and air pollution. Payment is reflected in the increased costs of products. Payment is being exacted in losses of public values in a pleasing environment. Thinking people have come to a definite conclusion: there is no question that costs must be paid for using the environment, but these questions remain: *When* is payment to be made? By *what* method? And *how* are the costs to be distributed?

Expressed another way: If we have learned anything, it is this—the American public can no longer withdraw "capital" assets from the renewable natural-resources "bank" without either adopting a "pay-as-you-go" policy or passing the ultimate costs along to future generations. For some natural assets, such as Lake Erie, the time for a choice very well may have passed for all time. Other resources are in equally perilous positions.

Does it not appear to be a paradox that modern civilization has given more people more wealth, more labor-saving devices, more creature comforts, and more leisure time than any other in history; yet, at the same time, all of this has resulted in a desecrated environment, greater social and moral decay, and more frustration, worry, and unhappiness at all economic levels? Can this situation be due to the fact that man, rather than being dispersed, is involved in "agglomeration," with three-fourths of the population of the United States living on one percent of the land? Can it be that the Aldo Leopold principle of population dynamics on wildlife is working on man? Are we exceeding the carrying capacity of our land? Is violence, at least in part, the result of the noisy, dirty, and frustrating conditions under which too many people live?

The answer to the basic question posed in this paper, then, is this: sound resources management is the responsibility of every American. The American citizen, as an individual, has a responsibility for his own actions that results in either appreciation of or degradation of the quality of the environment. The American citizen has a right to expect that his governments, on local, state, and

national levels, will take the responsibility to enact and to enforce laws and regulations which will control pollution, require the restoration of strip-mined areas, provide technical assistance in developing sound resource management techniques, and protect irreplaceable assets such as wildernesses and endangered species of wildlife. The American citizen has a right to ask that private industries adopt practices which will enhance the environment rather than degrade it. The American citizen should demand that public educational institutions inform young people about the natural resource problems, especially those in their own localities, and how they can be solved.

Clear waters and clean air, green forests and fields, flights of birds, and the sights of other wild creatures—these are the things of quality in an outdoor environment. These are the things that make life worth living, as compared to mere existence.

A short time ago, at a meeting of the Soil Conservation Society of America, I heard the Secretary of Agriculture predict that the population of the United States would reach the figure 300,000,000 by the year 2000, with three people standing where two stand today. It makes one wonder if Professor Ian McHarg, of the University of Pennsylvania, doesn't have a valid point in his parable. In this parable, he tells of an earth devastated by nuclear blasts to the point where only a small colony of uniquely shielded algae remain. Faced with an evolutionary process of billions of years, the algae unanimously vote: "next time—no brains."

Are things really that bad? It depends upon one's viewpoint. The pessimist very easily could compare our environment with that of only a hundred years ago and be completely discouraged. He could look at the burgeoning population, the mounting mountains of wastes, and the ever-spreading embrace of cities, and come to the inescapable conclusion that life soon would become intolerable, except, possibly, from a survival point-of-view.

On the other hand, there is the optimist. He looks at the country on an overall basis and realizes that there still is a lot of open space left. He believes that contamination of the environment by water pollution, air pollution, and chemical pesticides can be controlled. He realizes that strip-mined areas and blighted urban ghettos can be made pleasant and productive again, through the planting of trees and flowers and grass.

As in most cases, the true situation likely would fall between these two extremes. We do have an opportunity to correct most of our ills, but the accomplishment will not be easy.

In the past, conservation emphasis was placed on "preservation." There is no question of the values of efforts which have preserved, and are preserving, parks, forests, wildernesses, wildlife refuges, and natural areas. Preservation, however, now needs to be supplemented by activities in creative conservation, which, though it probably will require a greater degree of governmental participation in the future, also needs continuing support from citizens, as individuals and as organized groups.

Here are some possibilities for creative conservation:

1. Rather than concentrating into metropolitan areas now termed megalopoli, or "citysheds," or agglomerations, cities now need to be planned deliberately by the most competent among our professionals. Among other things, they should be planned to be located away from each other. The former factors which once were so important and vital in the location of cities—transportation and communications—no longer are so important, at least to the same degree. Locating smaller cities in different parts of the country would have several advantages. Such a process would lessen problems now associated with the inner city. It would disperse the threat of over-exploitation of water and land resources. It would lessen problems of air and water pollution, and of noise. It would reduce the time presently being lost in commuting to and from work. Such a program,

of course, is possible only through planned zoning—usually a governmental function.

2. Conservationists and others can work with planners to create green belts of prime recreational value and esthetically pleasing to the eye. Areas rendered unsightly due to the accumulation of waste can be screened. Areas with a high noise factor also can be screened or zoned out through proper planning.

3. Strip-mined areas can be reclaimed through the replacement of land and proper use of vegetation. In some cases, pits resulting from mining activities can be improved, so that they may be used for recreational boating, swimming, and fishing.

4. Streams can be improved through sediment control on the upland watersheds and through the stabilization of banks. In some cases, habitat for fish can be improved through the deliberate creation of pools and riffles.

5. Habitat for wildlife can be improved. This can be accomplished through greater use of food and cover-producing plants along fields and streams and pond borders. Mast-producing trees can be protected, or planted in areas without them. Under certain conditions, marshes can be flooded.

6. Special outdoor recreational areas can be created nearby to take some of the pressures away from fragile natural areas such as national parks.

I am sure that other ideas will occur to you as to what the natural resources picture might be—or could be—in the future.

One final observation needs to be made. The future of natural resources was discussed above as being the general responsibility of all citizens and their governments. Actually, it is up to those who are professionals in the field—wildlifers, foresters, soil conservationists, hydrologists—to inform, stimulate, and direct the interest of the public into an attitude of appreciation and concern for the principles of conservation. And, in this group I include conservation officers and others who work with wildlife on a full-time basis.

Many adults who now live in metropolitan areas have backgrounds in rural America. They grew up on farms or in small towns in rural communities. These people have a personal knowledge of and an appreciation for the outdoors. But what of the next generation, their children, or grandchildren? The city dweller who has no background in hunting, for example, may well turn for recreation only to golf or bowling or tennis. The person who is concerned only with domestic uses of water may well refuse to support pollution control efforts intended largely for other benefits. For the uninformed, a redwood may be just another tree—and who cares if all of them are cut and made into outdoor furniture or paneling? Right now, many inner-city residents have seen no other wildlife than pigeons or rats. To them, streams usually are loaded with packinghouse offal and human wastes, and wilderness or wild areas may be only of the type found in a city park.

They, as voters, wield an important influence. Will it be an influence that supports natural resources conservation and the financial costs entailed? Or will they be happy with an entirely pre-fabricated environment, unnatural and completely controlled and regulated to man's taste?

And so I believe we have great responsibilities for telling our story to America. We must tell it through the schools and through the educators who staff them, from the presidents of teachers' colleges down to the instructors. We must tell it through newspapers and magazines, and through radio and television media. We must tell it through our everyday work efforts, through our contacts with the public—at every opportunity which presents itself. The National Wildlife Federation continues to stand ready to cooperate in every way possible with this educational effort. Only in this way can we pass along to future generations the quality of an environment that makes life truly worth living.