THE 1971 EQ INDEX AND ITS IMPLICATIONS

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At the beginning I should warn all of you about what is to follow: as a well-trained and non-practicing fisheries biologist, and sometimes game biologist, you are now listening to a conservation generalist. These are the ones with the big mouths who try to put the specialist in his place. In effect, the title of my talk--"The 1971 EQ Index and Its Implications"--is an exercise in reducing a complicated mass of data into an understandable message. National Wildlife Federation is trying to make "E.Q." as common a term as "G.N.P.," which is, of course, "Gross National Product." G.N.P. is part of an artificial system involving our monetary system, whatever that is, while Environmental Quality Index is designed to measure those real factors which determine how well mankind can survive.

After you see the film strip I'll be outlining further aspects of E.Q. and what use we are making of it.

The first question after seeing the film might be about the accuracy of our index. This is best answered by referring you to the "1971 E.Q. Reference Guide" (available through the National Wildlife Federation, Wash., D. C.) which lists our sources of information.

Since our initial E.Q. in 1969, several groups, including the U. S. Government, are now publishing their own versions of an E.Q. Perhaps with several in the act, a new science will eventually evolve wherein increasing attention will be given to measuring man's surroundings in relation to his health and well-being. Refinement of these measurements will allow us to translate environmental needs into practical solutions.

A Federation investigative team has been digging into this complicated monetary-environment problem and we have "the biggest untold story in America today" according to Tom Kimball who will be making these remarks in the February-March issue of NATIONAL WILDLIFE, now being mailed to 600,000 associate members. And it's good news, which is a rare event these gloomy days. The message is simply this: it will pay us to clean up pollution. Our bill for air and water pollution damage is now at a staggering $28.9 billion annually. This costs every person in the U. S. $137 a year, or $480 a family. And the total is climbing fast.

The pollution arithmetic adds up in an exciting way when you look at it like this: A reasonable cleanup program will require an investment of $10.2 billion annually. Your

family's share comes to $170. But this cleanup will reduce pollution damages by a whopping $22.2 billion! Your family's share of saving comes to $370.

You pay out $170 for cleanup and get back $370, for a net savings of $200. More importantly, cleaner air gives a new lease on life for all creatures, be they eagles or man. Here's how we arrive at these startling figures:

Air Pollution - The President's Council on Environmental Quality reports the current air cleanup campaign will cost $23.7 billion between 1970 and 1975. Estimates indicate this will reduce air pollution damage by two-thirds by 1976. Polluted air causes the following damages, says the C.E.Q.: human health $6 billion; materials, vegetation, $419 billion; lowering of property values $5.2 billion. Some economists indicate these figures may be too conservative since they do not account for a shortened life due to illness, or loss of scenic values. One expert told us, "If we continue to establish comprehensive air pollution standards--and if we have the courage to enforce them--by 1976 we can reduce air pollution by 80 to 90 percent.

Here's the arithmetic: The $16.1 billion annual air pollution damage amounts to $268 for your share as head of the family. The gross savings from cleanup, reducing the damage 66% by 1976, would be a savings of $10.7 billion annually or $178 for a family. From this we deduct from future gross savings the annual cost of the cleanup or $3.9 billion or $65 a family. Now then, in 1976 the result in net annual savings comes to $6.8 billion or $113 for a family.

Water Pollution - Specific figures are lacking, as compared to air pollution, and Federal officials are almost embarrassed by the lack of data. However, the Federation's talk with economists who have researched the subject estimate that water pollution costs the United States $12.8 billion annually. They also believe pollution damage can be reduced 90 percent by 1980.

Polluted water costs the nation untold billions in reduced output, increased expenses, higher taxes and on top of it all, we all have generally a much poorer life. Here are some examples:

-- The polluted Deleware estuary alone represents $350 million in lost recreational opportunities.

-- One fifth of the nation's shellfish beds are closed because of water pollution.

-- A single child born retarded due to chemical contamination of water his mother drinks can cause society $250,000 in remedial training and custodial care.

Our calculations, based upon our view of the best data available, admittedly rather scarce, give us this kind of picture for benefits in cleaning up water. With pollution damage at $12.8 billion annually, that amounts to $213 per family, based upon a round figure of 60 million families. By 1980 an effective cleanup program can reduce this damage by 90% and this means an annual gross savings of $11.5 billion or $192 per family. From this we deduct $6.3 billion for the cost of the annual cleanup and this amounts to $105 per family. The result is the net annual savings and the figure comes out to be $5.2 billion or a savings of $87 per family.

Do these figures mean anything? It must be admitted that research data is not abundant in this area. It is a curious fact that government agencies can supply plenty of figures to support their proposals to build specific projects, but they come up short when dealing with air and water pollution which mean so much to mankind. At any rate, sources for the figures used by NWF defend this information and suggest the figures, if anything, are conservative.

Naturally, there is a time lag between taxpayer investment time and a return on his money. Air savings should be effective by 1976 and water savings by 1980. The average family must invest a total of approximately $500 by 1975 without return, but by 1979 the family will recover this $500 and by 1980 each family will have an annual savings of $200.

What about people being willing to make this investment? Americans are profit motivated. If enough of them can be convinced that pollution control will yield a return on the money the task will be easier. Quality of life should be more important than dollars and cents and without this attitude America and the world are in for mighty rough going. But pollution control, fortunately, should appear both to the dollar-conscious individual and to the growing numbers interested in the quality of our lives. On this whole question of whether Mr. Average Taxpayer is willing to shell out still more for pollution control, National Wildlife Federation is sponsoring a questionnaire through one of the nationally known public opinion survey organizations. Future articles in NATIONAL WILDLIFE will feature the results of this survey. I'd be surprised if Americans refused to pay the bill.

Meanwhile the skeptics will ask if pollution cleanup is on schedule. Well, for air pollution the 1970 Clean Air Act has sufficient strength to accomplish the goals as indicated in the aforementioned goals. The figures are valid. Here are the "IFs": IF current strict standards are not lessened, IF timetables set forth are met, and IF the regulations are enforced.

Water pollution figures are based on the Water Quality Act of 1965. The effort, however, can be called a failure to date because standards are not uniform or complete and State enforcement has lagged. Only 27 States have "no further degredation" clauses. Current hope is the new Water Pollution Bill which hopefully will pass Congress in 1972. It establishes strict Federal standards for effluent discharge by the individual polluter and provides for tough Federal as well as State enforcement.

Even though most professional resource management people become impatient and sometimes discouraged at the rate America is cleaning up its own mess, none of us can afford to diminish our efforts at the present time. It seems to be generally agreed that the conservation movement is not going to go away. However, there probably has been some loss of vigor since the probable peak attained during the first Earth Day, which was over two years ago. Some observers would have us believe there is now a backlash, perhaps led by Secretary of Commerce Stans and some industries and a scattering of unions. Since there has always been resistance to the conservation movement, most often for monetary reasons, this is to be expected.

What about a change in life style? The booming bicycle business is not going to clean up much air pollution. Our life style is dictated much more by man's technical gadgets than by any urging to change, via picketing, guitar playing or reading the Whole Earth Catalog. While there will be some, laboring mightily on their compost pile, most Americans will continue to take the path of least resistance. But nevertheless, in spite of all this, changes in life style are coming.

Whether we like it or not, America will eventually be greatly affected by a national energy policy. This policy will be an example of how changing life styles will come about. The change will be due to necessity, oftentimes a hard taskmaster. The free ride era is decelerating. If we are to survive, we must seek alternatives to many of the plans and practices involving natural resources that heretofore we used with reckless abandon. Seeking alternatives, measuring the trade-offs and trying to study alternative futures will no doubt become increasingly important as a science and profession. Those so inclined could obtain excellent background material by becoming acquainted with the World Future Society (P. O. Box 19285, 20th Street Station, Washington, D. C. 20036). Science writer Odom Fanning predicts that nearly twice as many Americans will be engaged in protecting the environment by the end of the 1970's as were employed at the beginning (Odom, F. 1971. Opportunities in environmental careers. Universal Publ. & Dist. Corp., N.Y.).

The scientific community in America will be challenged as never before to provide acceptable alternatives. Our basic research effort in this country has been influenced greatly by

the emotional climate of its people. Our defense posture captured the bulk of our better scientists and then it was the space program. Compared to either of these, environmental research effort is indeed puny.

Better answers to environmental problems must be paralleled with more effective education. Democracy decrees that the people must be the arbitrators of what constitutes the good life or decides on the trade-offs and social progress we will have. An objective EQ index to assist the people in determining the degree to which the environment is deteriorating, along with the costs, alternatives, and trade-offs, is vital so enough public interest will obtain desired results.