

The Threshold of Environmental Reason

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It was about 4 years ago that I appeared at your Institute and presented the current environmental views in a paper that was later entitled the "Environmental Horror Story," and I believe that it was. It was rather widely reprinted, and at the time I believed that it might have had a small part to do with the developing awakening of the public relative to the environmental crisis in our estuaries.

At the present time, I look with amazement upon the results of such early efforts, and feel very much like the fellow who has a bear by the tail. What so many of us had advocated for years has occurred, and now the public is only too well aware of the environmental situation. The environmental theme has crept into political campaigns, bureaucratic reorganization, industrial migration, television programming and even the "woman's lib" movement. When objectively viewed, it closely resembles a nest of fire ants when stirred with a stick.

Upon the announcement of another environmental crisis, there are so many federal, state, county, city and private groups rushing to the rescue that the environment is trampled underfoot in the effort to save it. By the latest figures available there are over 260 chartered national organizations who regulate, review and direct various programs relative to the environment. Add to this number the agencies, bureaus, branches and sections of the municipal, state and federal government and some idea can be had of the fecundity of the environmental movement.

The reptilian monsters that once wandered across the earth's surface eventually disappeared because of the food and mobility problem. It may well be that our environmental movement is developing the same category. This is best exemplified by the threadlike path that an environmental statement relative to a proposed project must traverse on its route from inception to completion.

Naturally, field data will have to be accumulated and collected. This will involve the services of geologists, economists, engineers, hydrologists, biologists, statisticians, development planners, soil conservationists, sanitarians and historians. For even a small project the time involved is a minimum of 6 months. Once the field data is obtained it must be assembled and conclusions drawn from the information presented. This involves another 2 months. Once the statement is written, it is reviewed by the respective administrative echelons within the initiating agency and any one of these echelons can demand a revision. When the statement finally has organizational approval, it is sent to the coordinating agencies for their review. For most projects the number of agencies involved in this stage are at least eight federal agencies, six state groups, plus an untold number of private groups who feel they have an active interest in the project. Altogether, the statement will be reviewed by at least 20 coordinating groups, and within each of these groups, there are at least five or six individuals who give it their personal attention.

Upon completion of the coordinating agency reviews, the statement is returned to incorporate any suggested changes developed by other agencies, or

to explain why such suggested changes were not made. This portion of the program will take at least another 3 months, and it now starts its path through the same maze of officialdom for a review of the review. This operation can be expected to last another month and upon the termination of this stage, it heads for the President's Council on Environmental Quality. The above notwithstanding, when a project has finally cleared the last hurdle, received the last review and gets a stamp of approval, it has been reviewed by various professional personnel innumerable times, and has taken a period of time no less than a year and a half.

Legislatively, environmental considerations have been inundated by laws, regulations, acts and program directives. There are so many of these dictums that it is nearly impossible to determine which of them should be followed on any particular project. There are over 40 national or federal statutes and orders, and 26 major directories ranging from the Department of Agriculture to the Department of State, all of which have designated environmental responsibilities. Each type of environmental problem has a myriad of responsible groups that are actively responsible for that particular problem. Land use and management problems, for instance, are assigned to 11 federal agencies. Each individual state has an involvement when such problems are within its boundaries, and each agency involved has its own set of rules and regulations relative thereto. It is unfortunate but true, that the most qualified people in our country are so busy with portioning out the problems to the right group in order that no-one will feel neglected or overlooked, that they have little time to solve the problem itself.

All this public hue and cry is a bit humorous to those of us, who prior to 1965, have had the distinction of being laughed out of meetings because we said water pollution was becoming a problem. Perhaps this is why many of us look askance when some "johnnie-come-lately" is quoted as a foremost authority on this, that, or the other. Truth and popularity do not always go hand in hand, but it is amazing to see how many environmental crusaders and authorities have emerged from the woodwork now that environment is a popular cause.

This speaker made a trip into a controversial area, and in one day alone was able to count at least ten alligators, three bald eagles, flocks of limpets, thousands of bass and other game fish on their beds, as well as otter, beaver, reptiles and wading and shore birds. Botanical specimens ranged from cypress trees to wild orchids. Imagine the speaker's amazement when he heard this area described as a natural disaster area by an official of that state's game and fish commission. Personal desires to ride in the front seat of the environmental popularity wagon are having a chaotic effect on the long-range integrity of both the agencies or institutions involved, as well as that of the individuals themselves. Recently, a federal agency requested a state institution to undertake a study of alternate waste-water disposal systems for the city of Chicago. Much to the disgust of many of us, certain staff members of this institution refused to do the investigation because they did not agree with some of the past programs of the initiating agency. The fact that over a million and a half people were needing this solution apparently was of no concern. What did seem to concern them was the fact that in doing this work they might be considered as being "outside the circle" The only commitment demanded of this study group was an honest investigation followed by an honest report. It was a clear case of what some people consider to be the more important, an answer to a critical environmental problem, or a nebulous object such as popularity and classification as "one of the boys".

In an effort to get something done, many have adopted the old reliable solution of "When in question, or when in doubt; run in circles, scream and shout."

One of the first efforts in this direction resulted in some figures that will remain as classic. Realizing that boats in many cases do not have on-board sewage treatment, it could be assumed that boats were contributing a great deal to the total pollution problem. Some aspiring statistician took the problem in hand, and with his computer under one arm, and his statistics under the other came up with a hum-dinger of a revelation. The report stated that there were 1.3 million marine toilets in use among the 8 million pleasure boats in the United States. Investigation by the National Association of State Boating Law Administrators, who doubted this figure, revealed that all the marine toilets ever made by all the manufacturers combined only amounted to a number between 500,000 and 600,000. If all those were still in use, which is doubtful, it would still fall far short of the reported 1.3 million.

The report also concluded that 81% of all sailboats were under 14 feet, and 50% of these had marine toilets. The most popular sailboat ever built is the 14 foot Sunfish with over 80,000 units on the water at the present time. According to the report analysis, 40,000 of them, or 50% as stated, have marine toilets.

Unfortunately in our effort to cure our environmental ills, we have been treating symptoms and not disease. As usual when this is done, other side effects have developed that threaten the patient to a degree equal to, if not greater than, our original concern. The two fundamental factors responsible for our environmental condition are over-population and over-concentration of that population. Correlated with this is the general desire for what we have come to consider as the necessities of life.

In association with a greater population comes one of the more critical problems of our times, that of energy shortage. This decrease of available energy per capita is increasing every day. Now once again, some of us are finding ourselves in a position where we can be hooted out of a meeting. As with the pollution problem of former years, no-one wants to be one of those advocating the development of more power resources. Nuclear power creates atmospheric pollution and thermal problems. Fossil fuel plants develop the same ogres, and hydro-power is a nasty combination of two dirty words. If, however, you believe that there was a noise when there was a fish kill on the local river, wait until you hear the bedlam that will ensue when your wife has to cook Sunday dinner on one burner because there is not enough heating power to go around, and this is as much the environment as is clean water, wilderness areas and pure air. I never expect to visit all of our wilderness areas, float down all of our wild rivers or fish in all of our preserved streams. I do, however, expect to take a hot shower, eat a warm breakfast and enjoy a cold drink just about every day of my remaining years. I, for one, do not intend to revert to a nomadic, Indian-like, child of nature existence as some would have us do.

At the present time, I am told that the demand will reach three times the amount now available. To meet the demand, in face of more stringent environmental restrictions, is going to be a problem for the power industry to meet and solve.

If we who are associated with, and interested in our environment are to arrive at objective conclusions and programs, we must go deeper into the problem than the treatment of symptoms. This is especially true to those of us whose interest is centered along our coastlines. The highest concentration of populations lie

within 35 miles of our nations coastlines, including the Great Lakes. These areas are where overpopulation and overconcentration are the most apparent and the most pressing.

As for decentralization of the masses, the future is dim indeed. Unless one believes in genocide based on geographical distribution, the only alternative is arbitrary assignment of locale. To this system, most of us would violently disagree. Most of us still want to feel that we have some choice relative to where we are going to live and what we are going to do for a living. I would hate to feel that I could be told that in the morning I would be moved, lock, stock and barrel, to Oklahoma, even if I have nothing against Oklahoma. I just don't want to live there, and above all, I don't want to be told that I must live there. In the meantime, however, these pressures and problems keep growing, and the solutions do not appear to be in the number of ducks we save, the fish we catch or the wilderness that we have preserved.

The time for the popularity footrace is over. We must now get down to the nitty-gritty and see what we can salvage from this environmental orgy. There are some serious questions that must be answered, and some conclusions that must be reached. In essence, environment is the key factor in the social organization of mankind. We must decide now what our objectives are going to be, and then take the steps to attain those objectives. The problem of mercury and other materials in our seafoods is a good illustration of this blind wandering. As of this date, I have yet to hear of any scientist who can positively state that this presence of noxious materials in our deep-water fish is due to a sudden increase in mercury content in the fishes' environment with a resultant absorption of the material into the system of the fish, or is it now detectable because of the improved techniques for determination of the material in more minute quantities? If the latter case is true, and I for one am prone to believe this situation, why all the fuss? It can be easily demonstrated that the poundage of swordfish landed in the United States went from 2,700,000 pounds in 1968 to 600,000 pounds in 1970. At the same time, the population of the United States rose from 179,223,000 in 1960 to 200,000,000 in 1970. This means that the national average of available swordfish per capita went from .01 pounds per person to .003 pounds per person. If only 25% of the people in the United States ate swordfish, this would still mean that there would be but .012 pounds per person consumption. In other words, there were not enough swordfish available for a person to eat enough to have a tiny trace of mercury poisoning, and yet, an entire industry was dashed to pieces because of the apparent desires of some to have us live in a near sterile environment.

Take the case of pesticides in milk. Some authority said that if an expectant mother drank milk with the formerly acceptable levels of pesticide in it, it would, or could, result in deformed children. This is true, but no one said how much of the milk she would have to drink. So, someone did figure it out. Based on the acceptable maximum amount of pesticides in milk, according to the former standards, an expectant mother would have to drink around a hundred and some gallons of milk per day, every day, for the last 6 months of her pregnancy, and then something might happen in the way of a child deformity, but even that couldn't be promised. The only thing that could be stated was that if a pregnant woman drank 27,000 gallons of milk in 6 months, something was sure to happen.

Use of this example does not mean that anyone condones the proliferant use of pesticides. The point that must be made is that sensationalism can no longer be acceptable.

The problem of impounded waters as compared to free-flowing streams is an enigma to an honest fisheries biologist. Faced with an expanding population which results in an increased use demand for recreational waters, as opposed to those who feel that a free flowing stream must be preserved for their own personal enjoyment, the fisheries manager is in a quandary. Should he provide for the majority of the water recreationalists, or should he provide for the much smaller group of purists. I don't have the answer, and I doubt if any honest fisheries biologist will admit that he has. There can be no answer, outside of personal desires, until our true national objectives are ascertained.

By definition, which is so specific that many of our modern ecologists would rather forget it, environment is the complex of climatic, edaphic and biotic factors that act upon an organism or an ecological community and ultimately determine its form and survival. Note that this includes the entire complex, and not only those particular segments thereof to which the individual has a special interest. As I have attended the meetings of various organizations with all sorts of initials for names, and slogans for titles, it is only too obvious that this grass-roots movement among the people themselves has made this strong environmental movement possible. In one evening, I have heard an obviously well-educated, well-cared-for, enthusiastic woman stand before the microphone with the ease of a veteran politician and proclaim the need for the protection of a river or a wood-lot. I have heard her state that the environment should be protected and in so doing, list the considerations that are needed. At the same time, however, her own son is driving around in a powerful automobile, adding to the air pollution problem. The automobile was given to him in return for a promise to get his hair cut, stay in school and stay away from drugs. This kid, his haircut, his automobile and his drug problem, is an environmental problem as much as is the wood-lot or the river she is trying to save. Perhaps, both she and her husband should try to solve their own environmental problem before they venture forth into new fields.

My neighbor, a well-meaning soul, is going full-out in an attempt to keep a park in a certain location. He is the first to loudly proclaim that we must clean up the environment. You should hear him complain, however, when the county assessed us all an additional \$5 a month to pay for a new sewer system.

The environmental picture of today is a 100% operation. The fault of undesirable environment lies 100% on someone else's shoulders, and the solutions lie 100% within each person's own personal improvement program. In all the years I have been working with this problem, I have yet to talk to a pollutor or an environmental miscreant. It is always the next fellow down the river or up the river.

We had better stop kidding ourselves. The guilty persons relative to environmental ills are you and I. We have lived too long on an artificial biological platform. We have ventured too far from basic and fundamental biological laws. The fundamental precept of survival of the fittest has been replaced by the system of protection for the weakest. How long would the people here assembled continue to survive if all the insulin were taken away from this group, if all eye-glasses were broken, if all dentures were destroyed, if all anti-biotics were eliminated, tranquilizers taken away, and the various other physical, mental and spiritual crutches taken away? Should we do just that in order that we reduce our problems to the fundamentals? Not by a long shot. No one in his right mind will pull the bung from the barrel of life and not expect to suffer therefrom.

The human race has been just about two jumps ahead of mass removal for some time. We are in a race for survival with nature as the competitor. It is very much like the tortoise and the hare. Nature keeps grinding away at a slow but steady pace while we scamper all over the place. For every pesticide we develop, nature develops a pest that is not affected. For every disease we conquer, nature develops a strain that can hit from another angle. We dare not stop, for natural laws will never stop.

If we are to continue to exist on a level that we can accept as tolerable, we must stop being two forces, one of the idealistic and the other materialistic, and combine our efforts. Things will never be as pristine and pure as we would like to have them; they never have been, in spite of what some would lead you to believe. At the same time, we must refrain from trampling those desirable characteristics underfoot in the name of materialistic progress. The true solution to our environmental problems is not going to be easily come by. It is going to require sacrifices from all sides. When a compromise is reached, then progress will be made in all directions.

The best comparison of the situation at present can be made relative to sailing. In a stout breeze, when reaching for the mark in a race, it is a great temptation to let the boat keel over, enjoy the thrill of riding the high side, watching the spray fly and the sound of rushing water. It sounds good, it looks good, and makes a big impression, but it is not winning races. You should keep the boat on an even keel, let the sail take full advantage of the wind, and let the hull ride over the water and not plow through it. In so doing, you get all the factors working together, and so it is with the environmental situation. If we can get all the factors working together by recognition of the fact that suitable total environment is everyone's problem, responsibility and objective, we can produce what we want to produce in an environment in which we can all enjoy living. Now is the time to assign a true value to all of our total environmental factors. The time for logical and considerate solutions is at hand, and we must not wait too long and waste too much time in useless name-calling before we confront the problems before us. As was said, "Let us go forth together."