

TODAY'S CHALLENGE TO CONSERVATION EDUCATION

In the November-December 1968 Journal of Soil and Water Conservation, several Society members joined in reassessing the direction of education in natural resources. I wrote then that any serious effort to predict the educational and training needs facing a career conservationist a decade or two hence could only be sheer folly.

Change is happening so fast in every field that technical training on the job will be the best way to keep up. However, even with limitations, those combined writings of 1968 still have great relevance for educators and conservationists. I'm not going to plow that ground again except for one quote from SCS Administrator Grant's article, where he said:

Material used by Norman A. Berg, Associate Administrator, Soil Conservation Service, U. S. Department of Agriculture, at the Summer Meeting of the Iowa Chapter of the Soil Conservation Society of America, Boone, Iowa, June 19, 1970

"Present and future conservationists must take those steps in training and education that will enable them to work effectively... in a setting of rapid change. It will require a basic understanding and awareness of the social sciences and humanities...(and) a practical knowledge of the cultural, ethical, historic, economic, and institutional factors that groups and individuals consider in reaching decisions. The conservationist must be fully competent in the substantive field in which he works, but this is not enough.

"It is fallacious to expect future conservationists to become experts in each of the many disciplines involved in solving complex land use and conservation problems. They must, however, be sufficiently well-grounded in those disciplines to fully utilize the help of various specialists and to integrate and interpret their findings into sound resource development plans and programs. Moreover, they must be able to communicate all the interdisciplinary principles to landowners, community authorities, and the general citizenry who may be involved in decision-making."

Yes, the future holds great changes--and challenges. It always has for each generation. Question:

"Can we now have only a small group of dedicated conservationists worry about the Nation's resource future, while American society as a whole tacitly agrees to shift the results of their land and water decisions and use onto the shoulders of the next generation?"

That's what our good collective ancestors did. Today, we are the "next generation" that conservationists talked about 30 years ago. We are the generation for whom the air is more polluted, the water dirty, the landscape more cluttered. Suddenly, wise resource and land use are not something vital to our grandchildren, but vital to us.

Now, as we find ourselves well into 1970, concern for conservation, ecology, and the environment is growing.

A few people wring their hands. A few more slam around and stop there. But most are seriously concerned--willing to get involved. They face problems:

--Where to turn?

--What doors to knock on?

--What phones to ring?

--What conservation programs are available to work in?

--Who decides on rural and urban land use?

--What kind of a community do we really want?

--What are the "facts."

Briefly, I see at least five dimensions of our great Nation that bear directly on present and future resource conservation education, planning and implementation.

First, population--how many people and where they live. We are an urban society. In contrast to earlier years, some 70 percent of our citizens now live on 2 percent of the land.

Although U.S. population growth has slowed (especially in the last 5 years), the prediction is that in the next 30 years another 100 million people may be added--that our Nation's citizens will number 400 million before a child born today is 70 years old.

A major concern of our Nation, then, is how to absorb these added millions of human beings in the city and the suburb--or in the rural community. How to assure them and their neighbors a suitable living environment.

A good living environment includes:

--Air fit to breathe;

--Water fit for drinking--and for swimming, fishing, and wildlife;

--Abundant food;

--Quality shelter;

--Open space that gives freedom to man's spirit, and diversity in his surroundings; that leaves room for man's individualism;

--Acceptable community facilities--from education to waste disposal, from transportation to recreation; and

--Good job opportunities, to help man provide for his other environmental needs and to give his life a purpose.

I want to come back to these characteristics of quality living--good water, food, shelter, space, diversity, facilities, and jobs, and relate them to resource conservation in a few minutes.

A second dimension for resource use is the recently expanded public concern for the natural environment. People are alarmed or dismayed by the rate at which the natural environment is being altered or is disappearing. A popular magazine reports on "Garbage Apocalypse," or the threatened inundation of New York City in its own refuse.

The extent and severity of water pollution, the regional focus on smog, the spread of housing, highways, automobiles, the apparently insatiable demand for products and services--the unlimited demands on limited resources--are now the subject of daily headlines throughout the U.S.

This picture, as portrayed by some people, has never looked more grim. But that's just one point of view. The other: never were there greater opportunities for constructive, enterprising minds. With citizen concern rising rapidly, there are expanding opportunities to take corrective steps.

Dr. Rene Dubos, biologist at Rockefeller University in New York, writing in Look magazine on April 21, 1970 said:

"We cannot achieve environmental quality without changing our ways of life and even our aspirations. We shall have to limit the amount of energy introduced into ecological systems, the kinds of industrial goods produced, the extent of our aimless mobility and our population size.

"In my opinion, all these limitations can be achieved without causing economic stagnation or stopping real progress. Indeed, a change in social structure and goals can enrich our lives, by opening the way for a social renaissance.

"The colossal inertia and rigidity--if not indifference--of social and academic institutions make it unlikely that they will develop effective programs of action or research focused on environmental problems. Two kinds of event, however, may catalyze and accelerate the process. One is some ecological catastrophe that will alarm the public and thus bring pressure on the social, economic and academic establishments. Another, more attractive, possibility is the emergence of a grass-roots movement, powered by romantic emotion as much as by factual knowledge, that will give form and strength to the latent public concern with environmental quality.

"Because students are vigorous, informed and still uncommitted to vested interests, they constitute one of the few groups in our society that can act as a spearhead of this movement."

A third dimension relates to this second one of expanded citizen interest. It concerns the change in strategies for public action. Dr. Michael L. Brewer of Resources for the Future, Inc., pointed out to SCS State Conservationists last September that,

"If environmental quality is to be the central focus of conservation today, it implies several radical departures from past thinking. Conservation in the earlier decades was primarily concerned with the particular commodities the environment could provide for the productive processes on which the American economy rested. These questions dealt with unambiguous resources--whether it was the amount of nitrogen or phosphorous in a soil horizon, or boardfeet of timber, or tons of a particular mineral. The concern with environmental quality does not lend itself as well to unambiguous measures, and certainly contemporary conservation objectives are much more difficult to identify."

Dr. Brewer feels that this change in the concept of conservation will be reflected in a mounting pressure on local people and local resource groups, such as soil conservation districts, to become more deeply involved with such problems as the management of waste materials, community land uses, and the methods whereby society can preserve parts of the natural environment that are highly valued for their uniqueness or special beauty. He feels that local organizations in the future will need to do more in the way of identifying their own environmental problems and establishing a forum of sorts, in which different courses of action can be explored and debated. In this connection, he feels very strongly that there must also be more dialogue between government agencies and the community in exploring possible courses of action and their impact on the community.

To quote Dr. Brewer again:

11-

"The problems of institutionalizing such dialogue through government agencies and other organizations are extremely difficult. Most of our government organizations... have been organized to execute programs largely conceived of outside of the local community in which they are to be implemented. Arrangements have been needed to receive commands from above and translate these into operable programs ... at the local level. We have had a high degree of success in establishing this type of organization in the United States. The point is, however, that we now face the much more complex task of devising organizational arrangements which can elicit participation of the local community in establishing goals and weighing alternative lines of action, in addition to local participation in the final implementation of the program selected."

As a fourth dimension, we note increasing conflicts between the wants and demands of American people. Too few citizens have yet made the connection between the pressures on the land, water, and air-- and their own consuming habits.

Some people want to stop or reverse the process of resource development, but few want to give up resource use. We are asked to change the landscape without disturbing it--to store water without building reservoirs, to build projects without taking land; to provide flood watercourses without channelization.

It is incumbent that we who profess some conservation capability, and who have accepted responsibility for land and water resource planning and development, must seriously concern ourselves with the alternatives available in adapting modern resource knowledge to the environmental goals of the community.

Back now briefly to my first point: The characteristics of a good environment that people expect in their communities.

You will--if you check--find some of these items missing in almost any community. But some people feel that in too many communities none of the good environmental features are present.

7
They look at our surroundings, technology, and political system
and conclude that quality environment is a hopeless case. However,
I am convinced that the same scientific brainpower and technical
skill that partially caused our environmental problems can be
harnessed to improve the environment for man wherever he may live.
It is a tremendous challenge. But it must be done. For instance,
transportation and communications and power requirements once
dictated that we concentrate people in giant cities. That
requirement is past. We can now have viable communities of small
to medium size almost anywhere in the Nation.

We have the space; we have millions of acres of good
soils suitable for many uses. We have the motivation; a recent
Gallup poll indicates that of every 100 Americans, only 6 percent
prefer living in a large city. And we have much of the basic
resource information and planning techniques that are needed.

What remains is to use the information and techniques, and to have close cooperation among all the disciplines involved-- planners, engineers, soil scientists, geologists, hydrologists, biologists, architects, economists, educational experts, ecologists, and others.

We need good community planning before land becomes urbanized. We need to allow in our plans for all the foreseeable community needs, and then to leave open space for the needs that we can't predict or foresee.

Modern man in a democratic society exercises a key role in determining priorities affecting life and living in his total environment. More and more, the individual wants to become involved in decision-making about matters that affect his environment. This is as it should be; but to be effective, the individual should be well-informed about environmental influences and his relationship to them, and about the various uses available, with due regard to proper conservation and other needed safeguards.

To properly inform people about environmental management and conservation and appropriate uses of land, water, and related resources is perhaps our Nation's greatest problem.

A fifth dimension for resource conservation is the encouraging evidence that public agencies today are becoming concerned about a wider range of resources and a broader set of objectives, including environmental quality.

Conservation leaders are enlarging their goals to include--

- sediment reduction as a measure of water pollution control,
- streambank and roadside erosion control,
- solid waste disposal,
- recreational development,
- surface-mined land reclamation,
- economic development,
- development and presentation of resource information, and
- multi-district land and water resource planning and development.

These enlarged goals are in addition to, and not a replacement for, regular farm and ranch conservation goals.

The State laws governing the purposes and operations of soil and water conservation and natural resource districts also are undergoing change. In more than half the States, basic legislation has been strengthened in one way or another during the past three years, and the process is accelerating.

My agency, the Soil Conservation Service, is also well aware that we have embarked on a new decade where change will accelerate, where problems will multiply and pressures will mount. We are focusing full attention on what the Service should be doing during the 1970's.

Now underway is a critical scrutiny of all of our present operations. The more of a sacred cow the operation, the more it probably needs a critical review.

We haven't formulated the specifics for Service work in the next decade, but I think you will be interested in some of the general recommendations made by our State Conservationists last fall.

Sprinkled throughout all discussions was the thought that we ought to look at and strengthen our relationships with conservation districts and their associations, and with other organizations in the conservation field.

A major point was that inventory capabilities to provide better data, faster, on a wider variety of resource conditions and problems should be strengthened. It was recommended that SCS:

- Speed up work on the national cooperative soil survey and reduce the time lag between mapping and publication;

- Broaden the perspective of river basin surveys to deal more fully with water quality, pollution abatement, municipal and industrial water supply, and other needs;

- And undertake comprehensive surveys of erosion, sedimentation, pollution sources, flood damages, water impoundment sites, scenic areas, and other resource concerns.

In the area of conservation planning, we intend to streamline our assistance; be more flexible; and relate planning on individual land units to planning for neighborhoods, communities and multi-county areas.

Watershed projects, and RC&D project needs were discussed, including how to provide for more flexibility in planning and for greater coordination with special interest groups such as wildlife agencies.

It was the consensus of the state conservationists that State, local, and private interests may have to provide a larger proportion of the technical assistance for installing conservation work on individual land holdings. SCS will need to continuously evaluate how to provide the best overall direction and technical assistance.

To summarize, the Service in the 1970's will probably move toward better and more comprehensive planning, and closer involvement in controlling pollution from agricultural sources.

Also at the national level, the whole business of conservation and environmental improvement is being studied by a number of executive departments. This includes specific policies as well as the institutional arrangements for carrying out those policies. Many bills have been introduced in the U. S. Congress that would change some of the present arrangements--that would shift whole agencies around, or shape new agencies and departments.

We may not approve some of the new arrangements being suggested for conservation work, but we are firmly convinced that the process of questioning current methods is a healthy one. We cannot assume that any of us is making the highest and most effective contribution at the "old stand." Let's look at ourselves and our work and when we see where improvements can be made we ought to make them.

To sum up, I believe that as we go into the 1970's, we must keep these five dimensions actively in mind:

- the rapidly increasing population pressure on our land,
especially in urban areas;
- the growing public concern about the environment;
- the emergence of environmental quality as a major national
goal;
- the need for conservation education among the general
public (I translate general public, here, to mean your own
community);
- and the general broadening of goals and aims among
conservation leaders across the Nation.

I see much that's heartening about this list.

As USDA Under Secretary J. Phil Campbell said on the recent
Earth Day:

"...History has revealed--(that) without man's stewardship,
Nature itself has rarely been productive enough to meet men's needs...
certainly not in the numbers...(in which) we exist today and will
exist in the future.

" Yet our resources must serve every economic and social need of mankind.

" The challenge is to assure that beauty and bounty as well as conservation development and use are maximized simultaneously into the very long future.

"
It is probably well to remind ourselves of something too easily forgotten in the present rising tide of public concern with environmental quality. The environmental issue is not a new one.
Fifty years ago and more, men were fighting for acceptance of the concept that soil, water, wildlife, forests and water power were renewable organic resources which might last forever if they were treated and harvested scientifically, instead of being consumed faster than they reproduced.

" They made some impact. Men like Hugh Hammond Bennett, first Chief of the Soil Conservation Service, who also founded the Soil Conservation Society of America; Gifford Pinchot who persuaded the government that conservation was a management tool and who was also first Chief of the Forest Service; and John Muir whose longtime dream saw fulfillment in the establishment of the National Park System.

"There were others who sounded a warning of things to come, but faced with our custom of waiting until we're sick before calling the doctor they achieved only a modicum of success."

In other words, "facts" alone can not sell the idea of wise use of our resources. Facts must be joined to persuasion--and that's as true today as ever. Perhaps there is harm in too much harmony. Harmony is a vital element in life, but it can be overdone. It can, for example, become a peace-at-any price proposition where fear of discord becomes more important than the "music" that's being made.

Perfect harmony may result in a kind of vegetable contentedness.

Most growth and progress is hammered out on the anvil of discussion and debate. In any work it's seldom the perfect chord sung by a chorus of yes-men that keeps ahead of the competition--it is more often the dissonant note of some rugged individualist who insists that everyone else is singing off-key.

I continue to have faith that local people working together with State and Federal agencies can shape and plan the environment on their terms. Changes are inevitable. The question is, on whose terms and under what criteria? That is a question to which I believe we can all contribute some answers. Best wishes as you guide and persuade others making the Nation's rural and urban land use decisions.