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THE LOOK AHEAD FOR SOIL CONSERVATION SERVICE

The invitation to attend your management conference--and a recent request to join a few others in writing a series of SCSA articles about resource conservationists of the future--has challenged me anew to think this problem through.

As the Administrator stated at the 1968 State Conservationists' meeting in Lincoln, Nebraska:

> "At this particular time. . .we are faced with seemingly insurmountable problems of management. But you are equal to it--and more! We are also faced with the necessity of thinking about the future in terms of environmental conservation for all people. None of us knows all the answers to the perplexing problems of meshing resource conservation with the social and economic needs of our people. But try we must and win we shall!
>
> "At times there may seem to be more questions than answers, at least throughtful answers that are geared to the challenges and changes all about us. May I pose a few of these questions--questions which we are wrestling with at the national level?
>
> "1. Must the Nation protect an agricultural land-use base sufficient to meet the needs of our population in 1980, 2000, 2010, and beyond? Who should do it?
>
> "2. Does our presently ample supply of land mask the seriousness of the misuse of resources in local areas, especially those associated with the concentration of 'people use' of land for non-agricultural purposes? What should be done? Again, who should do it?
>
> "3. If shifts in land and water use result in conflicts of use, how do we and other conservation leaders offer criteria which can help America choose between private and public needs?
>
> "4. Should technical services in resource conservation be limited to certain economic or social categories of recipients?
>
> "5. How can more of the workload of conservation practice installation be shifted to non-Service sources?

Material used by Norman A. Berg, Deputy Administrator for Field Services, Soil Conservation Service, U. S. Department of Agriculture, Washington, D. C., before the SCS Management Conference, Ft. Worth, Texas, Oct. 14, 1968

"6. How do we and districts determine and keep current meaningful priorities of work?

"7. How realistic are requests for additional authority and funds to deal with reduction of sediment and other agricultural pollution?

"8. How can the Service further develop and strengthen its image as an action organization that gets things done?

"These gentlemen, are but a few of the realistic questions that together we must face. If we professionals, and resource organizations, do not meet new needs of our people, the job is going to be handled by some other device, organizational set-up, or even by government edict. For the public needs must be met--and this fact will continue to bear more heavily on the Nation the longer they go unmet.

"I see this as the challenge confronting us today. It is broad, complex, and demanding. But if we meet the challenge with resolve, our accomplishment will be the most rewarding of any yet realized in any society."

I'll readily admit any serious effort to accurately predict the task, including educational and training needs, facing a career conservationist a decade or two hence may well be sheer folly. Change is now happening so fast in <u>every</u> field that technical training will be continually needed <u>on the job</u> if it is to have much relevance. We can, however, establish from past experience those fundamentals, if any, which can be depended upon to meet future challenges. Therefore, an analysis of the job facing the Service conservationist of today can help in defining the role of the Service conservationist of tomorrow.

My qualifications to do this should be questioned but modestly I'll suggest that my work with the NACD District Outlook committee, the USDA Task Force on Communities of Tomorrow, and the day by day duties of the Administrator's Field Services Deputy plus some other pieces does help

As I see it, you are similar to other career conservationists nationwide who are Federal civil servants who mostly received undergraduate education at U. S. Colleges of Agriculture and Forestry. You represent a variety of scientific disciplines. Predominantly, your course and curriculum content occurred in major agricultural, engineering, and natural resource areas, including the animal sciences, the plant and soil sciences, and renewable natural resources fields. Most of you have farm and ranch experience or at least grew up in rural surroundings. You probably had vocational and technical education in high school agriculture. Prior to acquiring career civil service status, you qualified through examination, recruitment and orientation, job training and probation on-site work experience. Many of you came to your chosen conservation career via the student trainee route.

The career conservationist of today still works primarily with individual rural, family-type land owners and operators. There also has been a step-up in the last decade in community and project type assistance, in work on suburban type resource problems, and some limited assignments in foreign countries. The conservationist of 1968 has been accomplishing at least four soil and water conservation purposes:

1. Collecting and interpreting facts about soil and water.
2. Planning, based on available data, and interpretations including the needs of the resource users, for the wisest possible use of the resources.

3. Assisting in effective on-site action to treat soil and water conservation problems.
4. Helping to coordinate the available public and private assistance to resource decision makers to eliminate waste and duplication of effort.

Today's career conservationists have also demonstrated ability to solve complex resource problems. They have motivated local people to solve their resource problems. They have helped create resource organizations of considerable size and vitality. They have collected a body of technical research, knowledge and experience of immense value in managing soil and water resources. They have helped develop a network of workable cooperative arrangements and agreements between Federal, State, and local agencies in the resource field. They have stimulated the formulation of long range programs, that when executed, will solve critical soil and water conservation problems.

Also, in 1968, the alert conservationist is increasingly concerned about relating soil and water conservation to economic development, pollution abatement, improvement of outdoor recreation, natural beauty, and land use problems whenever they occur--rural or urban or in rural-urban fringe areas.

With this background, what can we now forecast for the career conservationist of tomorrow? What will the decade of the 70's and beyond demand of our profession? What, if anything, will be different? What, above all, will our Nation want to be?

It is nice to know that recent projections of the Nation's gross national product is over $850 billion for 1968 and over a trillion dollars in 1971. However, George Stewart's new book, "Not So Rich as You Think," had these lines:

> "When some future historian sits down to summarize what the present generation of Americans has accomplished, his climatic sentence could read: 'Of the waters, they made a cesspool; of the air, a depository of poisons, and of the good earth itself, a dump. . .'"

So what would be still nicer to know about our gross national product for instance is if the Nation will be better off or worse off as a result of growth. Present aggregate tabulations of "product" is color blind. Somewhere, someone today is probably spending $20 million to create a resource mess that someday we'll have to spend at least $20 million to correct. Both are now considered goods and services (GNP)--the only test being that someone paid the bill.

A facetious remark would be that when the U. S. has an annual trillion dollar gross national product, it may have to spend most of it to return the environment to that quality level found when the U. S. was new--and had no gross national product.

Too harsh--perhaps so. But I am concerned that future generations will judge most harshly a race of men that had all the technical knowledge, all the resources they needed to provide a clean water, air and land, but lacked the will to do so.

If we let that happen, then they will so judge us.

As the Secretary of Agriculture points out at every opportunity:

"It is no secret that we are facing an environmental crisis. It affects every one of the basic elements of the biosphere--air, earth and water, and every one of us."

A former research director for the Urban Land Institute in Washington, D. C. is presently directing a program evaluation staff at the Department of Housing and Urban Development. They are in the process of publishing a two-volume work, "Dimensions of Metropolitanism," which projects what America will look like at the turn of the century.

The image is the megalopolis--regions crowded with cities and towns--with tens of millions of people seeking food, clean air and water. . . and housing.

Going back to 1960, 100 million Americans--56 percent of the population--lived in five great urban regions and 11 smaller regions. This concentration took up 7 percent of the land in the District of Columbia and the 48 states within the continental boundary.

By the year 2000, the prediction is that the five great regions will merge into three giant belts while the 11 smaller regions will become 19 large urban areas and great cities. Here 239 million Americans will live--about 77 percent of the nation in about 11 percent of the land. The total percentage of Americans living in any kind of an urbanized area will be about 85 percent at that time.

The strain this will put on natural resources of the areas will be tremendous. And the planning and careful regulation of these areas--in natural resources, in sociological problems, industrial development and housing will hold the key to whether this population shift creates a wholesome society or a monster which will destroy itself.

In contrast, the U. S. Department of Agriculture's Communities of Tomorrow statement envisions an American landscape dotted with communities that include a blend of renewed small cities, new towns, and growing rural villages. Each to be a cluster with its own jobs and industries, its own educational, medical, cultural, and recreational centers, and with an agriculture fully sharing in the national prosperity. Hundreds of such viable communities could make it possible for 300 million citizens to live in less congestion than 200 million live today.

Therefore, I feel that this is the time to speak for the unity of the city and the countryside for all values and uses. It is the time to advocate the protection and development of our resources as whole, in accordance with their capabilities and the goals of the community. It is a time to speak for action that will meet the oncoming demands of a growing Nation.

Above all, it is a time to help conservation district governing boards to assume fully their responsibilities of local leadership in soil, in water, and in related conservation and resource development work.

The key, as always, is people, and their desire, urge, or will to achieve. Psychologists tell us most people in this world can be divided into two broad groups. There is first that minority challenged by opportunity and willing to work hard to achieve something. Second, is the majority who really do not care all that. Therefore, we must help the Nation see that rural America's problems are the Nation's problems. We must help the Nation see that public programs, which may be easier to apply in large urban centers, nevertheless must be brought also to the countryside.

At the same time as we work within the Service to manage our internal affairs with greatest possible skill, we need to continue and improve our outside efforts to help the public understand our program.

We need to tell the soil and water resources story to many new people. We need to be more specific about the benefits of soil and water conservation efforts to all people and their institutions.

We need (1) to reach new audiences, including people who live in towns and cities, with material designed to interest them, and (2) to reach our traditional audience with fresh material reflecting current areas of emphasis such as pollution, how watershed work helps develop communities, RC&D project benefits, surface-mining rehabilitation, improving the economic status of small farmers, and rural job opportunities.

Everything possible is needed to make soil and water conservation as meaningful to the families who live in our towns and cities as it is to those who live in rural America.

How many citizens know that conservation is a national goal demanding assurance that the nation's natural resources are in a condition to support the economic and social goals of society for all future time.

--Its objective is the dignity of man's spirit and his welfare,

--Its concern is with the total relationship between man and the environment around him,

--It recognizes that conservation values extend throughout the entire fabric of human aspirations,

--It demands a creative conservation of selective use, protection, development, restoration and innovation, and

--It takes the future into consideration and recognizes that society's long-term interests may be jeopardized by seemingly rational short-term objectives.

As we develop momentum in this work--our agency, in league with many others, is working to help fill rural America with viable, liveable communities.

Our goal is a rural America where people can remain, or populations lost can return, and find the opportunities, the amenities of life as it can now be lived under the best American standards.

This is a formidable goal, and our effort is a pioneering effort. It brings us together from various disciplines into a common front against forces of defeat.

What will the resource career conservationist of the SCS contribute?

USDA and SCS conservation programs and policies are formulated and carried out with the intent of optimizing the contributions of natural resources to all potential uses present and future. They are programs that lead to a planned management of natural resources so as to prevent exploitation, destruction and neglect. Conservation programs have built-in features for accomodating dynamic change because society places severe stresses and strains on the natural environment that supports its culture. As a consequence, USDA Resources in Action programs are designed to recognize that:

--Man is unique in his ability to alter the environment in which he lives.

--Man's intervention in natural resource systems can be radically disruptive. Application of new technology not adequately supported by conservation investment degrades the ecological environment. The social costs are great.

--Man must learn more about the real alternatives available to him in his exploitation of natural resources.

This challenge to career conservationists suggests that we will do more:

--community-wide, multi-county project-type long range resource planning,

--erosion control on farm and non-farm lands, roadsides and streambanks,

--restoration of surface mined areas,

--protection and development of water resources,

--improvement of fish and wildlife habitat,

--reducation of air pollution from wind erosion and smoke.

--control of streamflow by improvement of infiltration of water into and through the soil profile thereby providing lower flows in the peak season and higher flows in the dry seasons,

--improvement of ecological environments to support man's culture and economic well-being by decreasing the ill effects caused by uncontrolled flooding,

--upgrading of water quality by reduction of sediments and other pollutants,

--creating and preserving natural beauty by providing for harmonious use patterns and blending uses into the natural landscape,

--outdoor recreational development by creating opportunities from the agricultural resource and from the off-site lands and waters that crop, pasture, and range land conservation systems enhance,

--resource work for economic activity in rural areas thereby stemming the migration of people to urban centers,

--to assure the availability of land and water to satisfy human needs,

--improving of conservation training in schools and youth organizations by helping professional educators strengthen this work,

--work with all types of roganizations and groups to help them improve their own conservation and education activities, and

--improving of the quality of the environment in whatever way resource conservation can contribute.

The National Goal of conservation will increasingly require the installation and operation of conservation systems on crop, pasture, range, and forest lands which produce multiple joint outputs as well as creating natural resource conditions that will support a viable and sustained agricultural industry as one of the major objectives.

It seems clear to me therefore that certain fundamentals will become increasingly high priority.

First, this Nation must continue to sustain the most productive and efficient agriculture in the world. Conservation procedures and techniques must be modernized and accelerated to protect and fully develop the cropland and forest production base through soil and water conservation.

Second, this Nation must protect and improve its water quality and supplies through better land management.

Third, this Nation must do a better job of solving land-use problems in areas of population growth, especially the rural-urban fringe areas.

Fourth, this Nation needs a more balanced pattern of national growth. This requires that rural America must become a better place in which to live and work and play and educate coming generations.

How to do it?

The answers are simple; the execution is difficult.

We must become involved in resource planning and development at all levels, from the individual tract of land to the multi-state regions. This means developing working relations, through conservation districts, to help small communities, towns, cities, and multi-county planning areas.

A look ahead at program planning and evaluation suggests we need to do better in measuring what conservation means. A special challenge faces the Service on two fronts. First, we must make sure the full array of social, economic, and environmental benefits from soil and water conservation accomplishments are measured and made more meaningful to those governmental and private institutions who make financial resources available to the Service and others for conservation and resource development. We must tell what conservation is doing for everyone.

Second, we should help those we assist in planning to make wise conservation investment decisions. We need to make certain that our own investments in conservation planning and installation services represent intelligent decisions. More of our Service resources are being committed each year to assisting others with regional, State, community, project, and group conservation activities. This area-wide activity broadens the scope and complexity of the soil and water conservation program. The result can be conservation accomplishments which make for greater contributions to social, economic, and environmental objectives--more public benefits to more people. On the other hand, opportunities are also present for dissipating our Service resources on conservation activities which may not pay off so well in public benefits. We need to carefully sort out and measure and make meaningful the benefits to be realized.

Our SCS reporting system includes new codes to reflect adequately our resource planning and implementation assistance to planning organizations.

We are also broadening the National Handbook for Conservation Planning to include guidelines for conservation planning help to individuals, groups, and public bodies.

As you well know, we have appraised nationwide the recipient classes to which SCS technical assistance under Conservation Operations is provided. While the results are gratifying from the viewpoint of small and family farmers serviced, we must continue to emphasize the priority that is to be given to small farms and ranches.

The Service must serve the public as technical leader in soil and water conservation, and in the light of fund and personnel limitations, it is essential to pursue more aggressively all avenues of non-Federal financial participation. This is especially so with respect to sub-professional categories of work such as clerical work and on-site conservation practice installation. While highly significant progress has been made in the past few years by soil and water conservation districts in obtaining support from county, State, and other tax-fund sources as well as contributed time, the need is so great that more aggressive action must be taken.

It is important that Service people and conservation district governing board members and their cooperators better understand the problems and the available opportunities.

We are now looking at Service work for possible impacts on the quality of the environment. Specifically, we must learn about the possible alternatives for disposal of feedlot and poultry wastes, crop-processing wastes, domestic sewage, garbage, and refuse. We need to know both the utility and the limitations of lagoons, landfills, septic tanks, infiltration ditches, and spray systems for treatment of a variety of wastes.

We should use every opportunity, where feasible, to promote putting organic wastes back on the land where they originated. Can we convert potential environmental pollutants back to production and use, and if possible, show a profit by doing it?

Sediment as a pollutant is finally attracting more attention. We must obtain and provide more information about the value of our programs to reduce sediment. A plan for the sedimentation surveys of selected reservoirs is being instituted in this South region. These surveys will add to our knowledge of structure design and provide sediment yield data to show the worth of land treatment, land stabilization, and structural measures in abating this pollutant. Control of erosion on SCS construction sites is a must.

Although sewage and industrial wastes are heavy contributors to the pollution problem, sediments from eroding land are the main burden of pollutants in surface waters. Suspended solids from farms, roads, streambanks, surface-mined areas, urban development, and similar sources amount to 700 times the loadings caused by sewage discharge. Sediment is not only a pollutant, it also carries other pollutants along with it--such as organic wastes and inorganic chemicals and infectious agents.

Aside from clogging our streams and reservoirs, a large sediment load will detract from recreational uses, reduce fish and shellfish populations, and impair the oxidation of organic pollutants. In addition, sediment greatly increases the cost of treating water for municipal and industrial uses and damages power turbines and pumping equipment.

Every year as much as 4 billion tons of sediment reach our waterways. That's tantamount to stripping the topsoil from about 4 million acres of land.

More than a billion cubic yards of water-carried sediment settles into our reservoirs each year, robbing us of space for storing water to satisfy the daily thirst of 5 million people.

Although it may be assumed that 3/4 of the sediment that reaches our streams comes from agricultural, forest, and range lands, construction in developing urban areas is also a heavy contributor.

While sediment from urban and industrial contribution is only a small part of the national sediment problem, anyone who lives where urban construction is going on knows that sediment is an important local concern. Such developments may contribute more than half the silt of streams in those areas. And the soil washing onto roads and into gutters is an ugly sight obvious to all.

Other conspicuous sources of sediment are the barren roadbanks themselves on many of America's rural highways and by-ways.

We need to accelerate application of soil and water conservation measures on the land, based on the highest technical standards possible. The sheer economics of keeping soil on the land versus dredging it from our streams indicates the soundness of this action. Dredging is a continuing expense until sediment is controlled at its source.

We need to give top priority to areas where erosion is critical no matter whether the land is in farm, residential, industrial use, or whether it is along roads or streambanks, or in old surface-mined areas.

human angle. Technology is important only when it serves a human need.

The Administrator

I believe we are coming to a time when there must be a national program and national standards of performance in land development. He does not mean that this should be or can be a Federal program with Federal standards. These issues are for the States and local governments to work out. Only when the general public and State and local leaders recognize the essential need for protecting their natural resources and developing them wisely--for their own long-term benefit--can the necessary programs and standards come into being. Some States and communities are making progress in meeting these needs, but the problems they are encountering attest to the magnitude of the challenge.

There is plenty of land available for the Nation's growth--but the question is what land for what purpose.

The voice of the resource conservationist must be heard in arriving at this decision. As a basic need, land owners and developers must conform to reasonable and effective standards of site selection and site development. To guide this development, it is imperative that soil surveys be completed as rapidly as possible in critical areas of rapidly changing land use. More State and local government help is essential to get this done. We all have a vital mission to perform in this broad conservation field.

We must continually redefine our roles and goals as resource conservationists.

We must seek new allies for the conservation effort. We must mobilize forces--public and private--interested in sound resource conservation programs. We must help to diminish inter-group conflicts, and encourage compromise. All of this requires improved communication--discussion in terms that special interest groups and the general public understand.

We must seek to amend or modify traditional organizational patterns where necessary. This includes multi-county planning; encouragement of more local participation in planning; support of closer conservation district ties with counties; support of broader representation on district boards; shift of more conservation work to non-Federal interests; emphasis on State and local financial support of conservation work; and encouragement of more private involvement in conservation efforts.

I would challenge all of us to consider whether we conservationists have fully met our responsibility to put more effort into solving resource conservation problems wherever they exist!

We cannot go on talking about the farm and ranch as though they were something apart from the total resource conservation picture. The deep interest we have for soil and related resource conservation must extend to every piece of land in the Nation--rural and urban alike.

There are many divisions in our society, but a clear-cut distinction between city and countryside is not one of them.

The boundary between rural and urban is fading rapidly. There is only one America with one set of interlocking natural resource problems. They can be solved. But it won't just happen.

The job done is more difficult to come by than the technical problem of moving a mountain. The problem is getting the people to understand why the mountain should be moved at all.

I see this as the challenge confronting us today.

Your invitation suggested that I leave about an hour for discussion. This will provide--in addition to whatever you want to question--ample time to examine:

1. The authorities of the Service.
2. The financial picture in FY 69.
3. The personnel picture.
4. The essence of good management.

Over the years all of us have been proud of the excellence of management practiced throughout the Soil Conservation Service. Fiscal Year 1969 will require us to do a better job in this respect than we have ever done before. Whatever work we do, we need to keep an eye on costs, on priorities, on the elimination of every vestige of red tape. We will need to pay close attention to the everyday efficiencies that are the essence of good management.

When you leave this meeting, you should have a copy of management improvement ideas from every State and from the RTSC's. Read them, and apply those which appear sound. And, as you get new ideas from your Area and Work Units, please keep me informed. We want to see to it that good ideas move around to all the States.

There are a number of other matters that should receive your close and immediate attention.

It goes almost without saying that there should be a close check on the need for every trip, every meeting or conference, every report, every operation. And everyone in your State should understand the priority that should guide him in devoting time to any activity. Schedules for all work need to be the best this year that we have ever prepared and followed.

Keep a close and continuous scrutiny on staffing in every office, including your own. We must be sure we are not maintaining any position we could get along without, or that should be left unfilled in favor of one of greater importance.

Review your plans for training. This is of key importance in a time of increasing workloads and decreasing budgets. Note especially new needs for training in resource planning; in Service-administered construction contracting, and related financing; and in new procedures in accrual accounting and cost-based budgeting. We need to do a better job in training student trainees--we're presently "holding" only half of them, and you know as well as I do that meaningful, challenging work assignments and training can raise this percentage. I propose that we try to raise the "save rate" for student trainees this year by at least 10 percent.

Be sure your plans of operation--in every office--are reviewed critically at least once a quarter. Keep moving matters of high priority up and ahead, and matters of low priority, or that others can do, down--and out, where appropriate.

See to it that both in State and Area staff conferences, appropriate amounts of time are devoted to management improvement--finding better ways of doing things. In doing this, be sure you're following the correct procedure to start with! Keep this activity going, and keep me informed, as I noted earlier.

Re-examine closely the management of your automotive fleet. Be sure vehicle safety, use, distribution, rotation, maintenance, inspection, and sales are correct and up to date. We can save money on this big fleet of ours!