

## Technical Assistance – The Engine of Conservation

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### **Introduction**

Creation of the Soil Conservation Service (SCS), predecessor to the Natural Resources Conservation Service (NRCS), capped Hugh Hammond Bennett's campaign to make soil conservation a central tenet of national agricultural policy. The agency's organizational structure strongly emphasized local field offices, where the staff trained in conservation could work directly with farmers, ranchers, and other land owners. This network of conservationists employed throughout rural America was critical to implementing the array of conservation programs enacted by Congress over time. The funding for a considerable portion of these field office operations is appropriated under the Conservation Operations line item, specifically for "Conservation Technical Assistance." The following history provides a window onto SCS' and later NRCS's delivery of assistance to land owners, and how new legislation and programs influenced the conservation operations.

### **Demonstration Projects**

Hugh Bennett joined the U. S. Department of Agriculture (USDA) as a soil scientist in 1905. While making soil surveys he became convinced that soil erosion threatened productive agriculture. He identified areas where combinations of soil properties, climate, agricultural crops and practices resulted in erosion. His campaign for soil conservation first resulted in Congress's providing for some soil erosion experiment stations. Bennett supervised the establishment of most of the stations. Bennett had established himself the acknowledged expert and crusader for soil conservation by the time \$5 million of

emergency New Deal funds were made available for soil erosion prevention in August 1933. He was selected as the Director of the Soil Erosion Service in the Department of the Interior, partly for his persuasive arguments of the need for a coordinated approach to soil conservation. He argued against panaceas. The one at hand was a recommendation for a nationwide terracing program. He proposed that a coordinated program of agronomic, engineering, and other approaches would be needed. As director of the new Service, which began operations on September 19, 1933, he proposed to establish demonstration projects near the soil erosion experiment stations. The results from the erosion experiment stations could be used in devising conservation practices for farms in the demonstration projects. The specialties of the demonstration projects staffs differed depending on the geographical area and the agricultural and conservation issues. Generally, each project had an agronomist, engineer, forester, economist, and perhaps biologist. Each specialist personally reviewed and contributed to the farm conservation plan of each of the cooperating farms in the project area.

### **Conservation Districts**

The act of April 27, 1935 established the Soil Conservation Service in USDA, which consolidated related conservation programs and authorities, including research, into the new agency. With additional funds available the Service expanded its operations and hired additional staff. As new demonstration areas and offices were added, the Service developed a regional office system. Regional office specialists in the various disciplines began to develop handbooks and other

technical materials for the conservationists working directly with farmers and ranchers. SCS had encouraged farmers and ranchers in the project areas to form soil conservation associations to encourage their participation and to provide continuity to conservation maintenance when the projects closed.

USDA, assistant secretary of agriculture M. L. Wilson advocated that the department's conservation activities be carried out through locally organized conservation districts. Such districts would provide for more local direction of conservation activities, and would engender greater local interest and participation. In February 1937, President Franklin D. Roosevelt transmitted the "Standard State Soil Conservation Districts Law" to state governors. After state legislatures enacted a State version of this model state law, local districts, subunits of state government, could sign an agreement to cooperate with USDA and receive assistance.

Cooperation was not limited to technical assistance, but SCS (and NRCS) assistance in large part has taken the form of assigning trained conservationists to work with local conservation districts and the landowners in the district. The Brown Creek Soil Conservation District in North Carolina, in whose boundaries lay the home farm of Hugh Bennett, signed the first memorandum of understanding with the USDA on August 4, 1937. At the end of 1939, there were eighty-eight million acres in districts. The acreage in districts topped the one billion mark in 1947 and the two billion mark in 1973. In the 1980s and 1990s Native Americans organized conservation districts, which now receive assistance from NRCS.

The transition to conservation districts had profound consequences for the means of providing technical assistance to farmers. With the expansion of conservation districts and potential clientele, it would no longer be possible to have four or five specialists on site to help write and review each conservation farm plan. As conservation districts were formed, the Service generally

stationed a soil conservationist and locally-hired technicians to assist the district. The soil conservationist, or work unit conservationist or district conservationist, typically had an agricultural or natural resources degree. The Service developed a number of strategies to ensure that the advice given to farmers considered all the resources and options. At various times in the agency's history, specialists at regional, technical, or state offices developed handbooks and other materials to give the soil conservationists guidance in the various disciplines, so that they might assist landowners. The "field office technical guide," tailor-made for a particular county or parish, was the culmination of decades of developing technical assistance for conservation. Specialists at area, state, or regional offices were available for on-site consultation on conservation issues requiring special expertise.

The field office structure covering rural America has facilitated NRCS's capability to carry out a number of mandates. USDA transferred the soil survey activities to SCS in 1952. Soil scientists, often working out of local field offices, surveyed, mapped, and wrote soil surveys, this most basic of natural resources inventories. Nationwide, soil conservationists made field visits to compile periodic natural resources and conservation needs inventory. Congress has periodically enacted legislation that focused on particular regions or resource concerns. The field offices and local soil conservationists have contributed to fulfilling legislative mandates, such as the Watershed Protection and Flood Prevention Program, Great Plains Conservation Program, Colorado River Basin Salinity Control Program, and Rural Clean Water Program. USDA also developed certain initiatives which concentrated staff and resources on selected geographical areas. A few examples would be the "targeted areas," in the early 1980s and the hydrologic unit areas established under the Clean Water Action Plan, and the Salmon Initiative. The distributed field office structure of the workforce meant that it has not been necessary to undergo the expense and disruption of opening and closing offices

as these various programs have been enacted and terminated.

### **Technology and Tools**

Tools developed by the Service to aid the individual land owner came to be used by state and local governments, and conservation districts. In some cases, government units based compliance with laws or ordinances on these conservation tools. Soil survey information is frequently cited in law and ordinances. Land capability, erodibility, and the concept of 'T' for erosion tolerance have been used in various forms. Because most government involvement with land use decisions is a state and local prerogative, the Federal role is one of consultation. Thus, the local soil conservationists, as well as NRCS state soil scientists, are available for technical consultation, but not enforcement. Local government, often acting through conservation districts, utilized various soil properties, especially suitability for septic tanks and high shrink-swell capacity, in granting permits for housing.

In the 1950s, the SCS began incorporating more "interpretations" into the published soil surveys. Such interpretations are used by local government. Perhaps one of the best examples of the contribution of SCS to local and state government was the "erosion and sediment control" movement. For example, officials of the Virginia and Maryland suburbs became concerned about the effects of rapid suburbanization. Among the issues were building on unsuitable sites and the resulting erosion and sedimentation. SCS soil scientists, plant materials specialists, and engineers adapted some of the soil and water conservation techniques used in agriculture and rural America for the suburbs. Based on these standards and recommendations, local entities enacted "erosion and sediment control" ordinances and regulations. The federally employed conservationists could assist the district to facilitate the installation of practices. While individual state or local governments could not afford to develop the necessary technology, they could leverage existing technology by supplying additional cost-

share money or employing additional district staff to work with NRCS staff.

Many tools developed by the Soil Conservation Service, exclusively or in cooperation with other agencies, were critical to implementing major provisions of the Food Security Act of 1985 (Public Law 99-198). The law required those who received benefits from USDA to comply with the Highly Erodible Land Conservation and Wetland Conservation provisions. In the case of the Conservation Reserve Program, USDA had to determine eligibility rather than compliance. The technical tools to write standards for compliance or eligibility rested on years of practical field experience by SCS specialists and local conservationists, along with research findings. As circumstances and technology change, these technical standards and tools are revised to keep pace.

### **Impact of the Food Security Act of 1985**

The 1985 farm bill affected the structure and the workload of the conservation technical assistance program. Under the new law, farmers who received USDA benefits, and who wanted to continue to receive those benefits, would become clients of the Service by virtue of having to comply with several conservation provisions in the bill. The USDA benefits fell under the general categories of price support payments, farm storage facility loans and payments, crop insurance, disaster payments, and various loans. The Agricultural Stabilization and Conservation Service (predecessor to the Farm Service Agency), was responsible for making most of these payments, but the Department relied on SCS to determine compliance with the conservation provisions. Moreover, the agency considered it part of their responsibility to advise farmers how they might achieve compliance. In this job, the field staff relied on its knowledge of installing conservation practices. For individuals farming highly erodible land, the act stipulated that farmers should be "actively applying a conservation plan," by January 1, 1990. The landowner had "until January 1, 1995, to comply with the plan

without being subject to program ineligibility.” (99 STAT. 1507) Field offices were also involved in determining eligibility for the Conservation Reserve Program and checking on seeding and maintenance. Also, staff in conservation districts where wetlands were prevalent had to ensure that provisions of the Wetlands Conservation provisions were not violated by people receiving benefits. However, the writing of compliance plans and helping install conservation practices on highly erodible land constituted the greatest shift in staff time. The goal for the soil conservationist and the farmer necessarily became compliance planning on hilly erodible lands. The traditional approach of writing a conservation farm plan for the whole farm, taking account of all resource issues, had to take a back seat.

Another factor increased the workload; the clientele grew in number. In the mid-1980s, the Service believed that slightly less than half of farmers were cooperators with the local conservation districts and the Service. Under the 1985 act, SCS began working with any producer receiving benefits from USDA and farming highly erodible land. And the relationship of the soil conservationists with the landowners changed. Although new conservation provisions were voluntary in that individuals voluntarily applied for USDA benefits, the potential to deny benefits for noncompliance placed the conservationist and the landowner in a new relationship.

The Food Security Act also affected the distribution of SCS field personnel. Districts with a concentration of highly erodible cropland and farmers who received USDA program benefits generally needed additional help to write compliance plans. These tended to be areas with grain crops, especially corn and wheat, for which there were crop support payments. Through staff retirements, new hires, and some shifting of personnel over time, these areas gained staff while other areas lost staff. Thus, staff tended to diminish in areas not producing program crops, or where highly erodible land was not concentrated. Since rangeland did not qualify as highly erodible cropland, it

was not a focus of the FSA, and as ranchers came to believe that they were losing assistance from SCS they organized a Grazing Lands Conservation Initiative. Proponents of conservation assistance on grazing lands have successfully influenced appropriations bills, which have dedicated funds specifically for conservation technical assistance on grazing lands.

### **Impact of Transfer of Financial Assistance Programs**

During the 1990s the Service assumed greater responsibility for USDA's financial assistance programs for conservation. This development affected the operations of field offices and the technical assistance program. The departmental reorganization authorities given to the Secretary in the Federal Crop Insurance Reform and Department of Agriculture Reorganization Act of 1994, Public Law No. 103-354 of October 13, 1994 were implemented through the Secretary's Memorandum 1010-1, of October 20, 1994. The memorandum renamed the Soil Conservation Service as the Natural Resources Conservation Service (NRCS); and transferred the Wetlands Reserve, Water Bank, Colorado River Basin Salinity Control, and Forestry Incentives programs from the Agricultural Stabilization and Conservation Service to the new agency.

In the 1996 farm bill, Congress created an Environmental Quality Incentives Program (EQIP), which combined the features of the Agricultural Conservation Program, the Great Plains Conservation Program, Colorado River Salinity Control Program, and the Water Quality Incentives Program. NRCS now had the leadership role for the financial as well as the technical aspects of the conservation programs, including developing the type of practices available, helping producers prepare applications, ranking applications, checking on installation of practices, and making payments. In turn, this shifted considerable staff to addressing the financial assistance programs with less to spend on the comprehensive planning that was once previously.

While financial assistance certainly facilitates adoption of conservation practices, maintaining technical competence at the field is fundamental to achieving program conservation objectives. The science and art of conservation is continually developing in response to changes in crops, technology and economic conditions. Cost-shared practices must be environmentally effective to continue being a worthwhile investment of public funds.

### **Changing Perception of Conservation Technical Assistance**

The role and the contributions of the conservation technical assistance program became increasingly hard for NRCS and its partners to easily describe to Congress and the Office of Management and Budget in the 1990s. For several decades it was generally accepted that SCS staff assisted conservation districts in accomplishing their conservation goals. There was little perceived divergence of local and national goals, although in the 1960s, the emphasis on assisting urbanizing areas and creation of Resource Conservation and Development Area occasioned some criticism. The staff time needed to fulfill the requirements of the Food Security Act of 1985 highlighted the divergence of local and national goals. In many districts FSA compliance work consumed most of the staff time. Conservationists and policy analysts from the 1970s onward argued for a more tightly focused financial assistance program; and achieved some victories. Either by administrative directive or by legislation, conservation programs have increasingly targeted certain problems or geographical areas. Contemporaneously with these developments, Congress and the administration created more accountability and oversight authorities. Under the Government Performance and Results Act of 1993 (P.L. 103-62), the Office of Management and Budget (OMB) demanded that agencies demonstrate the effectiveness of their programs. OMB uses its Program Assessment Rating Tool (PART) to evaluate how well agency programs are achieving their stated objectives. The PART is important because it will be used in

formulating the Administration's budget submission. With greater emphasis on quantification of program results and linking these scores to expenditures, NRCS has struggled to satisfactorily explain the results of conservation technical assistance. Nevertheless, the 2003 PART score for CTA fell in the "Results Not Demonstrated" category. The flexibility of the field office delivery system, which allows it to take on new authorities, also appears to be a vulnerability in accountability systems.

In fiscal year 2005, NRCS was to undertake changes to correct these perceived program deficiencies in CTA. NRCS developed a specific CTA Program Policy to clarify the extent, roles, and responsibilities associated with CTA. Previously policy related to CTA was located in disparate portions of agency policy statements and manuals. NRCS also established program priorities as recommended by OMB. The five priorities are:

- Development of comprehensive nutrient management plans (CNMPs) to assist the owners and operators of animal feeding operations; particularly, those who need to comply with the EPA's Concentrated Animal Feeding Operation Rule.
- Reduction of non-point source pollution, such as nutrients, sediments, pesticides, or excess salinity in impaired watersheds.
- Reduction of emissions that contribute to air quality impairment.
- Reduction in soil erosion and sedimentation from unacceptable levels on agriculture lands.
- Promotion of at-risk species habitat conservation.

### **Conclusion**

CTA has a long history of serving as the base conservation program for developing and delivering conservation technologies and practices to landowners and land managers. Since its inception, CTA has allowed the agency to tackle national conservation priorities and programs effectively, while being fluid enough to respond to local priorities.

Dynamic agriculture, markets, technology, and resource conditions present new challenges to the design of effective practices that merit financial assistance. Maintaining technical assistance capability at the field level makes it possible to develop and deliver this needed conservation assistance to all land users and managers. These technical recommendations must be responsive to changing conditions.

Importantly, conservation technical assistance is more than an adjunct to financial programs. Technical assistance is what makes financial assistance programs feasible and effective; providing the confidence that conservation practices as applied to a specific landscape will perform to their potential and are wise expenditures of public resources.

As CTA strives to fit into the model envisioned in accountability legislation, it is likely to become more focused and performance based. Improvements in performance measurement systems and more clearly defined program objectives will contribute to improved accountability for the results of CTA program activities.

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