NATIONAL GRASSLANDS MANAGEMENT

A PRIMER

Appendix D

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THE NATIONAL GRASSLANDS: ORIGIN AND DEVELOPMENT IN THE DUST BOWL

On 20 June 1960, the U.S. Department of Agriculture created nineteen National Grasslands from twenty-two land utilization projects in eleven western states. Those National Grasslands included four which were located in the most severely wind-eroded area of the Great Plains known as the Dust Bowl (see fig. 1). At that time the Mills project in New Mexico, the Morton County project in Kansas, the Cimarron project in Oklahoma, the Dallam County project in Texas, and the Southeastern and Southern Otero projects in Colorado became respectively the Kiowa, Cimarron, Rita Blanca, and Comanche National Grasslands. Each land utilization project had been part of the Roosevelt Administration's national soil conservation program during the 1930s—a program that was specifically designed to restore severely eroded lands such as those found in the Dust Bowl. There, drought, crop failure, overgrazing, soil structure, and the prevailing winds had contributed to the most serious wind erosion problem in the nation by 1932.[1]

As wind erosion increased on the Great Plains during the early 1930s, the interests of the social scientists who championed the need to remove submarginal lands from cultivation, also intensified. If the most severely eroded lands could be removed from cultivation and restored to grass and the blowing rangeland reseeded, New Dealers argued, the soil could be stabilized, the dust storms ended, and the land returned to a grazing economy with the federal government dictating the best conservation practices. The development of the land utilization projects in the Dust Bowl would be the supreme test of the federal government to

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[1] *Federal Register*, 24 June 1960; R. Douglas Hurt, *The Dust Bowl: An Agricultural and Social History* (Chicago: Nelson-Hall, 1981), 33; "National Grasslands Established," *Journal of Forestry* 58 (August 1960): 679; Keith A. Argow, "Our National Grasslands: Dustland to Grassland," *American Forests* 68 (January 1962): 50.

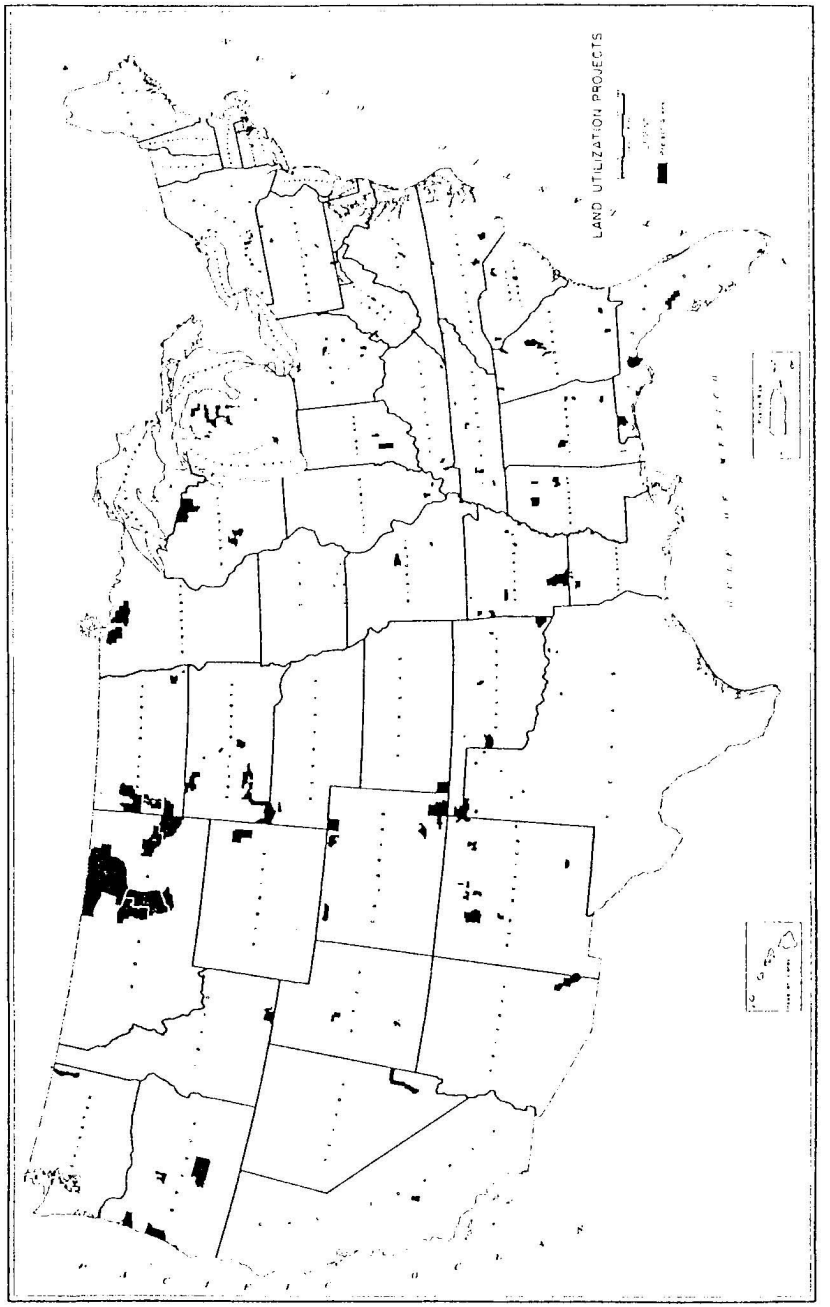

FIGURE 1. Land Utilization Projects. *Guide to Field Activities*, Soil Conservation Service, 1 November 1940.

achieve those goals in the Great Plains where soil erosion had become a major economic and social problem.

Plans to remove submarginal farmlands from cultivation, however, did not begin with the dust storms. Since the early 1920s, social scientists had been studying land utilization in relation to productivity and soil conservation. In 1929 the Agricultural Marketing Act enabled the Federal Farm Board to analyze the suitability of removing marginal lands from cultivation. Two years later, delegates from land-grant colleges, federal agencies, and farm organizations met at the National Conference on Land Utilization in Chicago where they urged the federal purchase of submarginal lands. That conference led to the organization of the National Land Use Planning Committee in 1932. This committee studied land-use problems and also recommended the federal acquisition of submarginal farmland to remove it from cultivation. Early in 1933, President Herbert Hoover, in support of the committee's recommendations, sought Congressional approval for a plan that would enable the federal government to lease submarginal land thereby removing it from productivity. The work of the National Land Use Planning Committee continued with the creation of the National Resources Board on 1 June 1934. Soon thereafter, the Land Planning Committee of the National Resources Board completed a study of the nation's land and water resources and issued a report outlining land-use policies that would be in the best interests of the general public. Specifically, that report called for the federal government to formulate a long-term land-use policy that would provide for the acquisition and removal of as much as 75,000,000 acres from cultivation nationwide.[2]

Thus, by the time the dust began to blow severely, agricultural experts, social scientists, and government officials had developed a "Land Program" which sought to achieve economic adjustments through public ownership to deal with the "agricultural maladjustments" of severely eroded lands. This land utilization policy would provide an "agricultural phase" to supplement the "engineering phase" of the federal land reclamation program. Together with New Deal zeal, it also would provide the basis for a grand soil conservation experiment in the Dust Bowl. Indeed, New Dealers believed the time was right for the federal government to use public funds to purchase submarginal lands. Most importantly, however, New Deal social scientists based the development

[2]L. C. Gray et al., "Utilization of Our Lands for Crops, Pasture and Forests," *Yearbook of Agriculture, 1923*, 415–506; H. H. Wooten, *The Land Utilization Program 1934 to 1964*, U.S. Department of Agriculture, Economic Research Service, no. 85, n.d., 4–5; Richard S. Kirkendall, *Social Scientists and Farm Politics in the Age of Roosevelt* (Columbia: University of Missouri Press, 1966), 39; L. C. Gray, "The Social and Economic Implications of the National Land Program," *Journal of Farm Economics* 18 (May 1936): 260; Marion Clawson, *New Deal Planning* (Baltimore: The Johns Hopkins University Press, 1981), 108.

and implementation of land-use policy on the belief that the needs of society were superior to those of the individual. As a result, society, represented by the federal government, had an obligation to assist farmers to use their lands wisely for the benefit of all. The farmer then, did not have absolute ownership of his property. Rather, he shared it with society that was obligated to oversee its use to guarantee future generations the inheritance of fertile fields rather than eroded hillsides and dust-laden air. To exercise that responsibility, however, the government had the obligation of providing guidelines for the proper use of the soil, and if need be, it could use its coercive power to insure that those regulations would be observed.[3]

More tangible rather than theoretical development of the land-use program began on 28 December 1933, when the Public Works Administration (PWA) transferred twenty-five million dollars to the Federal Emergency Relief Administration (FERA) for the purchase of submarginal lands. After February 1934, however, primary responsibility for the planning and acquisition of submarginal lands resided with the Land Policy Section of the Agricultural Adjustment Administration (AAA), although the FERA administered financial and legal matters and handled resettlement under its Division of Rural Rehabilitation. On 1 May 1935, President Roosevelt transferred responsibility for the land utilization program to the Resettlement Administration to streamline administrative responsibility. Under the Resettlement Administration, the Division of Land Utilization assumed responsibility for administering the work which the AAA had begun. Jurisdiction, however, again changed on 1 September 1937, when the newly created Farm Security Administration assumed control of the land utilization projects. That authority lasted until 16 October 1938, when the Soil Conservation Service (SCS) became responsible for administering the land purchase program under Title III of the Bankhead-Jones Farm Tenant Act of 1937. The Soil Conservation Service continued to purchase lands in designated areas through February 1943, when the land purchase program ended except for final acquisitions to block-in an area.[4]

[3]Gray, "Social and Economic Implications," 260–61; M. L. Wilson, "A Land Use Program for the Federal Government," *Journal of Farm Economics* 15 (April 1933): 216, 227; Paul H. Landis, "Probable Social Effects of Purchasing Submarginal Land in the Great Plains," *Journal of Farm Economics* 17 (August 1935): 514; M. L. Wilson, "Agricultural Conservation—An Aspect of Land Utilization," *Journal of Farm Economics* 9 (February 1937): 9–10.

[4]L. C. Gray, "Federal Purchase and Administration of Submarginal Land in the Great Plains," *Journal of Farm Economics* 21 (February 1939): 126; Gray, "Social and Economic Implications," 263–264; Kirkendall, *Social Scientists and Farm Politics*, 82, 110; Wooten, *The Land Utilization Program*, 10, 13–14. Ultimately only $40,000,000 were spent for land purchases nationwide, and only $9,000,000 were used for acquisitions in the Great Plains.

The land purchase program in the Dust Bowl had many objectives. First, the federal government planned to purchase the most severely wind-eroded or "nuisance lands" known as "blow hazards." Then, federal officials planned to halt wind erosion, turn the land-use projects into demonstration areas where farmers could observe the best soil conservation techniques, and eventually return the land to grazing under government management. At the same time the land purchase program would enable the federal government to consolidate the farms which social scientists considered too small to provide an "adequate level of living." Submarginal lands, the social scientist argued, prevented farmers from affording the best soil conservation procedures, such as listing, terracing, and strip cropping. The farmers, whose continued occupancy was not "socially desirable," particularly those on easily blown soils in the Dust Bowl, were to be resettled on better lands elsewhere. Those who remained would be able to expand their operations by leasing the restored grasslands from the government.[5]

With a land-use policy formulated, the next step was to begin acquisition of submarginal lands. In order to do so, government officials first identified "problem" areas in the Dust Bowl where wind erosion was severe. Next, they completed a preliminary study of the area which detailed the economic and social characteristics of the residents, identified soil types, determined the area's best agricultural use, noted local opinion about the project, and estimated restoration costs. The preliminary plans also designated project boundaries. When the Secretary of Agriculture approved the preliminary plans, agency funds became available for land purchase. Officials then compiled records such as the landowner's name, legal description of the tract, and mortgage, tax, and lien information. Employees at the regional offices recommended specific tracts for purchase which they then mapped and appraised. Negotiations for purchase began, and the government took options for the land. Upon federal acceptance, the option became a land purchase contract. When the Attorney General's office approved the transaction, it sent a voucher to the Treasury Department which issued a check. Finally, check and deed were exchanged, or if necessary, funds were disbursed to satisfy outstanding debts or liens.[6]

[5]Gray, "Federal Purchase and Administration of Submarginal Land," 150; C. William Lawrence to W. M. Russell, 29 December 1936, LU-CO-4, National Archives, Record Group 114 (hereafter all manuscript citations are from Soil Conservation Service, Land Acquisition files, National Archives, Record Group 114); Gray, "Social and Economic Implications," 267–69; Ralph F. Wilcox to James M. Gray, 12 August 1938, LU-OK-21; Development Plan for Southern Otero County Land Readjustment Project, n.d., LU-CO-4; Wooten, *The Land Utilization Program*, 6; Mills Land Use Adjustment Project, New Mexico Proposal A-4, Final Plan 15 May 1935, LU-NM-5; L. C. Gray to Hon. B. W. Gerhart, 20 June 1935, LU-NM-5; C. F. Clayton, "Program of the Federal Government for the Purchase and Use of Submarginal Land," *Journal of Farm Economics* 17 (August 1935): 58.

Although the government was prepared to use the power of eminent domain to acquire needed lands, it was not willing to exercise that authority in the Dust Bowl. Court ordered sales, officials realized, would have caused adverse publicity and alienated residents. Instead, an appraiser inspected the lands, consulted with cattlemen, farmers and others, and based his valuation on the land's productivity as grazing land, desirability, and comparable sales. The appraised value of improvements depended upon their condition and replacement costs. Where mortgages exceeded appraised land values, the AAA asked the Federal Land Bank and other lending agencies to renegotiate mortgages so that the owners would receive at least some equity. Upon authorization, the appraiser negotiated a selling price with the owner. Critics, nevertheless, charged that the federal government was attempting to coerce farmers into leaving the region and that appraisers were incompetent. Federal officials argued in turn that all sales were voluntary and that the appraisers were knowledgeable and capable of handling the task at hand. Moreover, if appraisers determined that certain lands within a purchase area were worth more in crops than in grass, the federal government was not interested in acquiring those lands. Instead, agency officials preferred for the farmers to remain on the land. Part of the problem was, of course, that Dust Bowl lands were worth far less during times of drought and severe wind erosion than in times of normal or above normal precipitation. Invariably, landowners hoped for high 1920s prices rather than depressed Dust Bowl valuations.[7]

If a considerable number of tracts were not optioned, as was the case in Cimarron County, Oklahoma, where landowners joined to demand higher prices or where school lands were heavily mortgaged, policymakers instructed project managers to submit plans for supplemental land purchases. By expanding the project area, officials hoped that restoration could proceed without delay as well as prevent the project from

[6]Tevis E. Wilkins and George B. McIntire, "An Analysis of the Land Acquisition Program," U.S. Department of Agriculture, Soil Conservation Service, *Miscellaneous Publication 26*, (August 1942), 5–7, 9–12.

[7]L. H. Hauter to L. C. Gray, 9 April 1935, LU-NM-5; Wilkins and McIntire, "An Analysis of the Land Acquisition Program," 7–8; A. G. Black, Memorandum for the Secretary of Agriculture, 7 April 1938, LU-OK-21; A. G. Black, Memorandum for the Secretary of Agriculture, 31 August 1938, LU-CO-4; Wooten, *The Land Utilization Program*, 7; Norman G. Fuller to L. C. Gray, 18 October 1937, LU-CO-4; Southern Otero County Land Use Adjustment Project, 20 February 1935, LU-CO-4; New Mexico Submarginal Land Purchase Project Proposal A-4, 10 June 1935, LU-NM-5; Petition from Otero County to the Agricultural Adjustment Administration, 23 April 1935, LU-CO-4.

being placed in jeopardy. The private lands interspersed in the purchase area could be purchased later if owners changed their minds and if funds were available. In the meantime, privately held lands were to be organized into soil conservation districts, so the appropriate conservation procedures could be applied to both public and private lands within the area of the land utilization project.[8]

Local merchants also criticized the land utilization projects. They feared that any loss of residents would irreparably damage their businesses. Still others objected to the federal land purchase program because it would ruin the tax base. In Morton County, Kansas, for example, the nearly 107,000 acres purchased represented 20 percent of the taxable land in the county and 9 percent of the taxable valuation. In four of the five townships involved in the land-use area, the tax bases were reduced from 2 to 14 percent. One township lost 65 percent of its taxable acreage and 50 percent of its tax base. In 1936 revenue losses were approximately $7,000. Two years later, federal purchases on the Mills project in New Mexico reduced the tax base for the school district by 17 percent. Federal economists expected future grazing revenues to cover only 50 percent of the lost taxes. The land-use projects, however, reduced the need for public services and helped consolidate schools and close roads, thereby offsetting some of the tax losses incurred by the local governments. Moreover, tax delinquencies were so high in the purchase areas that the immediate tax loss was not great. Eventually, policymakers hoped, income from the reestablished grazing areas would bring the counties more revenue than had been collected when taxes were paid. In 1937 the problem of tax losses was lessened when Title III of the Bankhead-Jones Farm Tenant Act required the federal government to return 25 percent of the revenues earned on project lands to the counties for the maintenance of schools and roads. This provision lessened opposition to the land purchase program from local government.[9]

Some Dust Bowl landowners objected to the land-use program, because land sale payments that they had been promised were slow in arriving. Invariably, those who optioned lands wanted payment immediately to help meet financial obligations during those dust-laden, Depression years. Bureaucratic procedures, however, usually prevented payment for more than a year. This lag naturally fostered dissatisfaction with the program. After 1938 with the return of near-normal precipitation, more farmers and ranchers began opposing the land purchase program. The return of adequate rainfall caused the grass and the crops to grow and portended profitable returns once again from their lands. With new vegetation holding the soil during the early spring "blow months," the land purchase program became less attractive than when the "black blizzards" had swept across the land only a few years earlier. Nevertheless, as long as the dust blew, most residents in the "blow hazard" area of the southern Great Plains supported the federal government's land-use program.[10]

In spite of these problems and objections, the land-use program in the Dust Bowl became a grand experiment for the federal government and particularly for the Soil Conservation Service. A soil conservation project on such a large scale was unprecedented. At first, few people were certain about how best to restore the wind-eroded lands to grass. Both corrective and preventive soil erosion procedures clearly were needed, but no one was certain which techniques would work best. While some soil conservationists believed the lands should be allowed to reseed naturally, no one knew how long the process would take. Estimates ranged from twenty-five to forty years depending on the length of time the land had been cultivated or grazed, annual precipitation, and the proximity of seed grasslands and blowing fields. More speed, however, was needed, and the Soil Conservation Service soon instituted a technical program to stabilize blowing lands.[11]

At first, the SCS listed the 'blow lands" so that deep furrows would catch as much soil and hold as much moisture as possible. The SCS also planted drought resistant cover crops, such as black amber cane and sudan grass, to reduce wind velocity at ground level and thereby hold moving soil. Usually, the SCS found that it needed to list and plant wind-eroded croplands two or three times before the soil stopped moving with the wind. During this time, the SCS hoped that weeds would quickly cover the land. Indeed, the key to stabilizing the soil was to cover it with vegetation of some sort. In the absence of the best grasses, the SCS utilized weeds, such as the Russian thistle, to hold the soil rather

[8]A. G. Black, Memorandum for the Secretary of Agriculture, 7 April 1938, LU-OK-21; Alan F. Furman to C. F. Clayton, 10 June 1938, LU-TX-23; Ralph F. Wilcox to James M. Gray, 12 August 1938, LU-OK-21; A. W. K. to L. C. Gray, n.d., LU-CO-4; A. G. Black, Memorandum for the Secretary of Agriculture, 31 August 1938, LU-CO-4.

[9]Gray, "Social and Economic Implications," 266, 272; Wooten, *The Land Utilization Program*, 23–25. Confidential Report to M. M. Kelso on Effects of Mills Project LU-NM-5, on Local Public Finance, Together with Analysis of Local Sentiment Pertaining Thereto, 8 April 1938, LU-NM-5; Clayton, "Program of the Federal Government for the Purchase and Use of Submarginal Land," 62; Southern Otero County Land Use Adjustment Project, Preliminary Proposal A-3, 1 January 1935, LU-CO-4; New Mexico Submarginal Land Purchase Project Proposal A-4, 10 January 1935, LU-NM-5.

[10]Gray, "Social and Economic Implications," 264–65; D. R. W. Wagner-Smith to L. H. Hauter, 5 October 1935, LU-NM-5; *Albuquerque Journal*, 8 October 1935; *Roy Record* (Roy, New Mexico), 24 April 1936; Hurt, *The Dust Bowl*, 118; Southern Otero County Land Use Adjustment Project, 20 February 1935, LU-CO-4; Glen Brigs to C. F. Clayton, 21 March 1938, LU-TX-23.

[11]Hurt, *The Dust Bowl*, 80.

than to let it remain barren and exposed to the wind. Still, even temporary stabilization took time. The SCS did not give major attention to permanent stabilization by planting native grasses on project lands until the early 1940s. SCS employees, however, also removed improvements such as fences and buildings from the acquired lands and erected new fences, laid cattle guards, and built farm ponds. During the course of project development, owners and relief workers were hired with Works Progress Administration, Public Works Administration, and Title III funds.[12]

While the SCS worked to stabilize the soil, it also began experiments to determine the best grass varieties for reseeding the land purchase areas. In the beginning, the agency did not know which seeds or seed bed preparation methods were most suitable for the Dust Bowl. Consequently, with the aid of state experiment stations the SCS commenced trial plantings at selected sites to determine the best techniques. Soil scientists experimented with seeding both sandy and hard lands. From those experiments, they learned that sorghums, mowed at a height of twelve inches with the clippings left on the ground, provided the best cover crops for newly seeded grasses. The amount of seed needed depended upon germination, natural reseeding, planting methods, and seed varieties. Test plots on the Morton County project indicated that blue grama, sand love grass, side-oats grama, little bluestem, and sand bluestem were the most suitable varieties for sandy areas. Blue grama, side-oats grama, and buffalo grass were best for hard lands. Serious shortages of little bluestem, sand bluestem, and side-oats grama dictated, however, that more than 75 percent of the seeding mixtures for both sandy and hard soils be composed of blue grama, buffalo, and sand love grasses. Grass varieties, however, differed even within the Dust Bowl. Blue grama, crested wheat grass, western wheat grass, and Galleta, for example, were the best varieties for eastern New Mexico. Grain drills with double disk furrow openers planted the seeds about one inch deep. Some grass seeds were broadcast; that is, dropped at

[12]George S. Atwood, "History of the Cimarron National Grassland" (Unpublished manuscript in the possession of the author, 1962), 6–7; J. O. Bridges, "Reseeding Practices for New Mexico Ranges," New Mexico Agricultural Experiment Station *Bulletin 291* (April 1942): 16. Edward G. Grest, "The Range Story of the Land Utilization Projects," *Journal of Range Management* 6 (February 1953): 45; D. A. Savage, "Grass Culture and Range Improvement in the Central and Southern Great Plains," U.S. Department of Agriculture, *Circular 491* (February 1939), 4–5; L. H. Hauter to W. W. Alexander, 30 June 1937, LU-NM-5; C. E. Clayton, Memorandum of Frank J. Hopkins, 10 December 1938, LU-KA-21; Glen Brigs to Norman Fuller, 2 April 1938, Amarillo Regional Office Records of the Project Plans Division, 1936–1941; Conservation Land Acquisition Project Additional Purchase Request, Mills Land Use Adjustment Project, 1 October 1937, LU-NM-5; Alan F. Furman to C. E. Clayton, 10 April 1939, LU-KA-21.

ground level from a drill tube. Although broadcast seeds, if immediately covered with a disk harrow grew nearly as well as drilled seed, this reseeding method did not produce a uniform plant stand. No test plots were grazed before three years to allow sufficient time for the grass to thicken and develop.[13]

SCS grassland experts applied the knowledge gained from their test plots to field scale reseeding, but that work proceeded slowly. By the end of 1941, nearly three years after reseeding began, only 1,200 acres had been planted on the Morton County project. During the next year, SCS employees seeded 2,500 acres, but persistent seed shortages prevented the agency from meeting its reseeding goal of 10,000 acres annually. To meet its seed needs for the Morton County project, the SCS tried to raise several grass varieties along the railroad right-of-way near Elkhart, Kansas. This method, however, proved too slow, and insufficient moisture prevented successful harvests. Because of limited supplies, the SCS sought grass seed wherever possible. In 1941, for example, the Morton County project received blue grama and buffalo grasses from northwest Kansas and eastern Colorado. Two years later, it acquired blue grama from central Kansas. The Morton County project seed supply problem, however, was not solved until 1946, when the SCS obtained 90,000 pounds of blue grama from the Plainview, Texas area. The SCS and the state experiment stations also seeded "cool season" grasses, that is, grasses which extend the grazing season into the autumn, such as crested wheat grass, western wheat, and Canada wild rye, with western wheat grass proving the most hearty.[14]

The SCS intended eventually to lease the restored grasslands to individual farmers and cattlemen or to grazing associations. Leaseholders would be required to abide by SCS established range management regulations. Individual applicants for grazing permits were to be landowners or resident farmers and ranchers who owned the livestock which they intended to graze. Groups or associations also could apply provided the members were engaged in ranching or farming in or near the area. Federal officials, in consultation with the grazing associations, would determine the type and number of livestock which could be grazed on project lands. Those who leased the grasslands could not

[13]Atwood, "History of the Cimarron National Grasslands," 7–8, 10, 12–13; Bridges, "Reseeding Practices for New Mexico Ranges," 22, 27, 29; Savage, "Grass Culture and Range Improvement," 6, 11, 13. See also M. M. Hoover, "Native and Adaptive Grasses for Conservation of Soil Moisture in the Great Plains and Western States," U.S. Department of Agriculture, *Farmers Bulletin 1812* (February 1939).

[14]Atwood, "History of the Cimarron National Grassland," 14–17; Savage, "Grass Culture and Range Improvement," 36; Bridges, "Reseeding Practices for New Mexico Ranges," 24, 30.

erect permanent corrals or limit the grazing areas by placing salt near water holes. Individual livestockmen or grazing associations also were responsible for the maintenance of fences and ponds. By 1943 the Morton County project, for example, had sufficient precipitation and new grass to enable the SCS to grant local cattlemen permits. The following year, the Morton County Grazing Association was organized to rent the grasslands for a portion of the year. Some federal officials hoped that in time these leases would pay for the projects. They estimated that the Mills project would be self-liquidating in fourteen years, while lands in Baca County on the Southeastern Colorado project would return a profit in ten to fifteen years.[15]

In retrospect, the federal land-use adjustment projects in the Dust Bowl did not involve the permanent removal of land from agriculture. Rather, the projects fostered a change or readjustment in agriculture on those lands from crop production and exploitative grazing to controlled livestock-raising and sound range management practices. Certainly, the federal government never intended to remove all Dust Bowl land from cultivation. That task would have been impractical given the region's settlement patterns and climatic and soil characteristics, and because the removal of larger land blocks would have been a financial impossibility. Funding was always less than had been requested or needed, and projects usually were reduced in scope due to monetary shortages. Reseeding sometimes stopped altogether as funds were exhausted. In addition, development work continually lagged because payments for optioned lands took time to process. Frequently options expired and authorities did not have the power to renew them. Moreover, the emergency relief legislation, which financed the projects prior to the Bankhead-Jones Farm Tenant Act, mandated hiring the unemployed. The SCS, however, intended to employ resident operators both to speed the work and also to streamline the bureaucracy involved. Landowners had their own teams, tractors, and grain drills; relief workers did not. This necessitated the acquisition of expensive equipment from other sources. PWA funds, however, could be spent only for heavy equipment or for the construction of dams. In addition, the administrative transfer of responsibility among five agencies hindered project development. At best, the federal government hoped the land-use projects would show farmers and cattlemen the best soil conservation practices possible and help discourage "speculative misuse" of the land by nonresidents.[16]

[15]Range management Plan, Southern Otero Project, 12 August 1937, LU-CO-4; Proposed Regulations for the Administration of the Grazing Lands Under Control of the Mills Land Project, ca. April, 1937, LU-NM-5; Atwood, "History of the Cimarron National Grassland," 34–35; Mills, Land Use Adjustment Project Conditions Justifying the Acquisition of the Land and the Execution of the Development Proposal, 15 September 1935; Supplement, Southeastern Colorado Land Utilization and Land Conservation Program (Baca, County, Colorado). 17 March 1938, LU-CO-22.

The greatest problem, however, of the land-use adjustment projects in the Dust Bowl involved the resettlement program. Originally, policymakers had intended to relocate families elsewhere in "subsistence homestead communities." Landowners on the Morton County project, for example, were to be resettled on the Mississippi delta. Mills project farmers were to be relocated on the Storrie project near Las Vegas, New Mexico, or on the Middle Rio Grande Conservancy Project in the Rio Grande Valley. Later plans called for their resettlement on state lands near Los Lunas or in the Fort Sumner Irrigation District in New Mexico. Frequent changes in procedure, lack of clearly defined objectives, delays in optioning and paying for land, and inadequate funds and areas for resettlement plagued the resettlement program. Additionally, few people were willing to sell their lands and to resettle when they did not know where they would be sent or how their relocation would be financed. As a result, few Dust Bowl farmers chose to resettle on other federal lands and instead used their money either to move to nearby towns or to reestablish themselves on farms of their own choosing. As a humanitarian program, designed to improve the standard of living among those who sold their lands by relocating them on better farms, the resettlement portion of the land utilization program was a failure.[17]

Nevertheless, the failure of the resettlement program was inconsequential for the Dust Bowl. Most of the owners who sold their lands were not resident farmers struggling to grow crops on too few acres in a drought- stricken land. Indeed, from January 1938 through June 1941, the federal government purchased only 1,827 tracts totaling 581,696 acres in the southern Great Plains, most of which were in the Dust Bowl. Those lands included 249,268 acres in cropland and 334,428 acres in rangeland for 42.9 and 57.1 percent of the total area respectively. Only

[16]Gray, "The Federal Purchase and Administration of Submarginal Lands," 123, 131; Gray, "Social and Economic Implications," 264–65; Norman G. Fuller to Alan F. Furman, 25 May 1939, Amarillo Regional Records of the Project Plans Division, 1936–1941; R. M. H. to Hon. John A. Martin, 31 January 1936, LU-CO-4; Semi-Monthly Project Progress Report, Mills Land Use Adjustment Project, 30 November 1936, LU-NM-5; Norman G. Fuller to Alan F. Furman, 12 June 1939, Amarillo Regional Office Records of the Project Plans Division, 1936–1941; Glen Bridges to C. F. Clayton, March 21, 1938, LU-TX-23.

[17]Wooten, *The Land Utilization Program*, 22; New Mexico Submarginal Land Purchase Project Proposal A-4, 10 January 1935, LU-NM-5; Thomas R. Borland to C. F. Clayton, 14 May 1936, LU-NM-5; Norman G. Fuller to P. V. Cardon, 23 April 1935, LU-CO-4; Landis, "The Probable Social Effects of Purchasing Submarginal Land," 516. Only 1,811 out of 24,148 families who sold their lands nationwide were resettled on federal lands obtained for that purpose. See Wooten, *The Land Utilization Program*, 20–21. For a brief study of resettlement problems for the Mills project farmers, see Paul Bonnifield, *The Dust Bowl* (Albuquerque: University of New Mexico Press, 1979), 150–51.

29.3 percent of those lands were in use at the time of purchase, while 49 percent were abandoned and 21.7 percent classified as "partially idle or abandoned." Resident owners occupied only 6.7 percent of the purchased acreage, while tenants occupied 10 percent of the tracts leaving 83.1 percent unoccupied. Clearly, the SCS did not force a host of landowners off their farms. Moreover, the 581,696 acres which the SCS had purchased by mid-1941 had been appraised at $1,892,251. Of that amount, croplands were valued at $3.44 per acre and grazing lands at $3.12 per acre. With subsurface rights included, the appraised value averaged $3.72 per acre. Although the price per acre was low when compared to valuations based on use during times of normal precipitation, Dust Bowl landowners were the only ones to receive more than the average assessed value per acre. On the other land utilization projects, prices averaged $.13 per acre below the appraised value.[18]

Ultimately, the Soil Conservation Service achieved success with the return of near normal precipitation during the late 1930s and early 1940s. Even so, the work of the SCS was important. The listing, terracing, furrowing, strip cropping, and artificial reseeding activities of the agency were instrumental in helping to stabilize the most severely wind-eroded areas. Moreover, government ownership of wind-eroded or potentially hazardous lands offered soil conservationists the opportunity to conduct experiments free from the host of agreements, regulations, and paperwork associated with private landownership.[19]

The land-use projects were not the panacea capable of solving all of the regional, economic, social, and erosion problems that many New Deal social scientists had hoped. As part of a broad soil conservation program in the Dust Bowl, however, the land-use projects contributed to the efforts of the SCS and other governmental agencies in halting wind erosion and restoring a sound agricultural base in the southern Great Plains. In addition, the land-use projects, together with the creation of soil conservation districts, helped to ensure the best conservation and land-use on both federal and private lands following the return of normal precipitation to the Dust Bowl.

The SCS continued its reseeding, grazing management, and other conservation work on the Dust Bowl land utilization projects until the early 1950s, when jurisdiction for the projects once again changed. On 2 November 1953, Ezra Taft Benson, Secretary of Agriculture, transferred the land utilization projects from the Soil Conservation Service to the Forest Service. Effective 4 January 1954, the mandate of the Forest Service was to ensure a "sustained yield" of the grasses as well as "multiple use" of the land. As a result, the National Grasslands serve as wildlife refuges, sources of mineral wealth, and public recreation areas in addition to grazing lands. Above all, however, the National Grasslands in the Dust Bowl serve as a landmark to a great experiment in state planning and soil conservation during a time when the grass was not always green nor the sky always blue.[20]

[18]Wilkins and McIntire, "An Analysis of the Land Acquisition Program," 20, 23–26, 31–32, 34. The tracts averaged 318.39 acres.

[19]Final Plan Southern Otero County Land Adjustment Project, July 23, 1935, LU-CO-4.

[20]Memorandum of the Secretary of Agriculture, No. 1320, 2 November 1953, History Office, Soil Conservation Service, Washington, D.C. The National Grasslands change in size from time to time because of land exchanges between the federal government and private owners to facilitate blocking and range management improvement. As of 30 September 1983, the acreages for the Dust Bowl National Grasslands were: Comanche 418,887; Cimarron 108,337; Kiowa 136,412; and Rita Blanca 92,989. See "Land Areas in the National Forest System, as of September 30, 1982," U.S. Department of Agriculture, FS-383, 33, 41, 45, 51–52.