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History and Outlook for Farm Bill Conservation Programs

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Over the last 70 years, the United States Congress has taken on the task of determining how federal dollars will be invested in agriculture through farm bills.¹ The focus of this paper is to determine how conservation programs have arisen and evolved and to speculate about future direction. Conservation programs have taken a variety of forms since 1933, usually as vehicles for rural investment, income support, and supply control. It was not until the mid-1980s that conservation programs were truly rooted in protecting natural resources. Several important environmental gains have been made over the last 70 years, and the future of conservation programs looks even more promising.

1930s—Depression

The Great Depression of 1929 ushered in hard times for all Americans, especially farmers. One out of four Americans resided on farms at the time; today that figure is less than one out of 50. Between 1929 and 1932 gross farm income dropped 52%. In 1933 rural incomes were 40% of urban incomes, and there was 30% unemployment in urban areas (Doering, 1997). When FDR was elected in 1933, he promised “definite efforts to raise the values of agricultural products” (Hurt, 2002). His administration, under the leadership of Secretary of Agriculture Henry A. Wallace, produced the first farm bill: the 1933 **Agricultural Adjustment Act** (PL 73-10). Wallace understood the financial crisis that faced rural Americans; the best way to get cash to rural, predominantly agricultural focused areas was via farm programs. Direct payments were not an option at this point in history; governments giving money directly to individuals would have been seen as socialistic.

1. “Farm bill” is used throughout this manuscript as a common method for referring to Acts of Congress pertaining to agricultural programs.

The Agricultural Adjustment Act began a time-honored tradition in American agriculture: the notion that it is necessary to control supply in order for farmers to receive a fair price for their goods. The act attempted to do this by setting price supports, or parity prices, to guarantee that prices did not fall below a set level. This price support was available to producers who participated in voluntary production reduction programs, such as acreage set aside. In reality, the program was hardly voluntary—those who did not participate were subject to the uncertainty of low prices on the open market. The program was financed by levying a processing tax on the commodities. This tax was often passed straight to the consumer, who ended up paying more for food and fiber products. In 1936 this tax was declared unconstitutional on the grounds that Congress had passed a tax that was beneficial to one segment of the nation—the farmer—while causing detriment to everyone else.

This setback ultimately led to the first conservation initiatives. Congress needed to infuse cash into rural areas while controlling supply to achieve higher commodity prices, ultimately in hope of reducing the dependency of the American farmer on government subsidies. **The Soil Conservation Act** of 1935 (PL 74-46) established the Soil Conservation Service and made funding available for farmers who established soil conservation practices. This mode of bringing cash to farmers had not been challenged in court, so it became the basis of economic relief in the next farm bill: the 1936 **Soil Conservation and Domestic Allotment Act** (PL 74-461). Congress entitled the bill “an Act to provide for the protection of land resources against soil erosion and for other purposes.” These other purposes were to raise the purchasing power of the American farmer. Soil conservation was a justifiable public expenditure; Americans had seen how the Dust Bowl had driven farmers out of the Great Plains. Economic and social pol-

icy analysts saw that conservation was in the public interest, and therefore the public should contribute to the farmer's costs (Helms, 2003). Soil conservation had also gained a formidable ally in "Big" Hugh Bennett, the first director of the Soil Conservation Service. Bennett used his supreme showmanship and scientific knowledge to rally Congress and the American public to the need for soil conservation.

Financial assistance for conservation in the 1936 Act was called the Agricultural Conservation Program (ACP). The ACP sought to reduce commodity surplus by paying farmers to replace seven soil-depleting crops with soil-conserving crops. The seven soil-depleting crops included corn, cotton, wheat, and other commercial crops the USDA believed to be in surplus. By planting a grass, legume, or cover crop in place of one of these soil-depleting crops, the government would pay the farmer for participating in soil-conserving practices out of the general revenue fund instead of assessing a special tax.

Although this program provided a constitutional way to get cash to farmers, it failed to reduce surpluses—surpluses actually grew. This can be attributed to farmers enrolling their poorest ground into conservation programs while using their guaranteed income via government payments to increase yields with fertilizers, machinery, and other technology on their best ground. The 1938 Agricultural Adjustment Act sought to decrease these surpluses by using acreage allotments and the development of the ever normal granary to handle excess supply, to no avail. The act did continue to build on conservation policy by increasing payments to participants and setting rules for how those payments should be divided between landowners and

producers (tenants and sharecroppers). The 1938 Act also laid the groundwork for soil conservation districts at the county level.

By providing rural Americans with conservation funding in the late 1930s, the administration was able to increase the quality of life and economic security that was shattered by the Great Depression. Table 1 provides a comparison between conservation expenditures in 1937 and 1999 in 2000 constant dollars.

1940s—Wartime

World War II brought a hungry world market to American producers. High demand led to higher prices, and the government developed great surpluses to ensure national security. Conservation was put on the back burner as producers scrambled to cash in on high prices. This was a period of turf wars, where the Soil Conservation Service, land-grant colleges, Farm Bureau, extension, the Department of the Interior, and others attempted to shape their roles in conservation programs. There developed under Bennett a sense that SCS, as the keeper of the conservation flame, had the mandate and mission to plan and execute a national program of soil and water conservation. Conservation was defined as what the SCS decided to do. After World War II, the SCS was project oriented, conducting activities like the Small Watershed Program and Great Plains Conservation Program. These were seen as public works programs that usually were funded to benefit the home district of some congressional representative (Doering, 1997).

1950s—Dealing with Surpluses

The war ended, demand shrank, and surpluses grew. Farm bills in 1949 and 1954 did little to control sur-

Table 1. Conservation expenditures.

Year	1937	1999
Financial assistance	\$5,041,700,000	\$231,383,000
Technical assistance	\$261,863,000	\$799,578,000
Land reserve	\$17,655,000	\$1,711,163,000
Total	\$5,321,218,000	\$2,742,124,000

Note. Adapted from Doering (2000).

pluses and less for conservation. The **Agricultural Act** of 1956 (PL 70-540) created the Soil Bank, which took 29 million acres out of production. By transferring these acres into conserving practices, the government could decrease surplus supply as well as deal with (as stated in the act) "the stifling effects of erosion that threatened the welfare of every American and disrupted markets and commerce on the whole." These acres were to be diverted into soil, water, forest, and wildlife conservation programs in exchange for government rental payments for 10 years.

The Soil Bank was made up of two specific programs: the acreage reserve and conservation reserve. The acreage reserve program made farmers refrain from planting surplus commodities (corn, wheat, cotton, rice, peanuts, and several varieties of tobacco) or plow down the crops they had already planted. The conservation reserve program called for a three-year contract wherein the government would pay for land improvements that increased soil, water, forestry, and wildlife quality if the farmer would agree not to harvest or graze contracted land. This act also stated that newly irrigated or drained farmland could not be used to produce these surplus commodities, as well as providing matching funds to the state for reforestation of private lands. Land retirement programs had several objectives: reduc-

ing erosion, supporting farm incomes, and reducing commodity price support payments by reducing the supply and thereby raising market prices (Helms, 2003). This period started a trend that would be followed until the early 1980s—the idea that the biggest problem with soil loss was lost productivity. Several important lessons would be learned about land retirement programs by the failures of the Soil Bank, such as limiting retirement on a per-county basis so as not to devastate local economies and the importance of a bid system rather than fixed payments. The acreage reserve ended in 1958 under criticism of its high cost and failure to reduce production (Bowers, Rasmussen, & Baker, 1984).

1960s—Targeting Surplus Commodities

Surpluses were still the norm in the 1960s, and the government continued the fight for supply control. Conservation payments through the ACP were being used for lime and drainage, which improved soil quality and increased yields. In 1962, 38% of funds were spent on fertilizer and lime. These major outlays were starting to be questioned as a driving force behind producing further surpluses. Farm productivity grew by 49% between 1950 and 1970. The **Emergency Feed Grain Act** of 1961 (PL 87-5) attempted to take additional corn and grain sorghum out of production by paying farmers to replace production acreage with conservation areas. Designed only for 1961, this program continued for several years. Subsequent acts of the 1960s redefined the set-aside acreage program, changing contract lengths and program capacities. The 1965 Act established a cropland adjust-

ment program, giving the Secretary of Agriculture authority to make 5- to 10-year contracts with producers who agreed to convert cropland into uses that would conserve water, soil, wildlife, or forest resources, establish or protect open spaces, natural beauty, or wildlife or recreational resources, or prevent air or water pollution. Payments could not exceed 40% of the value of the crop that would have been planted on that land.

1970s—Fence Row to Fence Row

The Russians were running out of food and the Secretary of Agriculture told farmers to “plant fence row to fence row” in order to produce enough crops to meet world demand. The Russian grain purchases ensured that prices and demand were high. American farmers were more than willing to answer the call to produce more. In retrospect, this attitude was very detrimental to the gains that conservation programs had made during the previous 40 years. Farmers tilled up their conservation acreage and went back to their old ways. A 1977 Congressional study found that 26% of farmers in the Great Plains Conservation Program had plowed up their newly established grasslands for wheat production after their contracts had expired (Doering, 1997). This emphasizes the difficulty of maintaining long-term conservation practices, especially in land retirement programs.

The **Agricultural Act** of 1970 (PL 91-524) offered further payments to farmers who were willing to let fishermen, hunters, and trappers onto their conservation acreage. The Water Bank of 1970 was established to protect the breeding grounds of migratory waterfowl. The **Agriculture and Consumer Protection Act**

of 1973 (PL 93-86) authorized long-term contracts (up to 25 years) for the Rural Environment Conservation Program and Water Bank Program. There was a push in conservation to increase the “natural beauty” of rural America. The language used in the **Food and Agriculture Act** of 1977 (PL 95-113) shows the USDA was starting to take a harder look at sources and solutions for point and nonpoint farm pollution, including animal wastes. The administration began looking not only at water pollution from sediment runoff but also the overall quality of water supplies in rural America. This also led to increased targeting, putting money where it was deemed most beneficial for water quality instead of in the hands of any and all farmers.

1980s—Conservation Policy that has Conservation Implications

The farm policy of the 1980s shows a change in environmental concern. Until this time, two major themes had dominated the conservation debate: first, reducing high levels of erosion; second, providing water to agriculture in quantities and qualities that enhanced production (Zinn, 2001). Increased public awareness about the deleterious effects farming had on not only soil quality, but also water, air, and wildlife, came to life. Conservation programs started to focus on conservation, not supply control or rural development. This swing in motives can be attributed to the demands of the environmental lobby, who found it was easier to make environmental changes in agriculture through farm bills than through environmental legislation (Doering, 1999). The 1985 Farm Bill was the first to have a specific title devoted to conservation. The true breakthrough of the 1985 Bill can be

found in the change in the language it uses to describe the importance of soil conservation for reasons other than productivity gains. It added new programs: Sodbuster, Swampbuster, Conservation Compliance, and the Conservation Reserve Program (CRP).

Conservation compliance set high penalties, such as loss of price-support programs, government crop insurance, FHA loans, CCC storage loans, and CRP payments, for owners of highly erodible land (HEL) that did not develop and implement a farm conservation plan before 1995. Sodbuster required complete implementation of a conservation plan before new HEL could be cultivated for the first time. Failure to comply led to loss of all farm program benefits until conservation plans were fully implemented. Swampbuster prevented conversion of wetland areas into production (Napier, 1990). These programs were actually enforced early on, causing a political uproar and turning neighbors and SCS employees into “soil cops.” The majority of funding went to putting 36.4 million acres into the CRP. The CRP was intended to conserve not only highly erosive lands (like soil banks had done in the past) but also conservation of other biologically sensitive and important areas. In essence, the public rented the land from the farmers to ensure it was taken out of production. This land was chosen using a scoring system, which was unknown to most producers. The system ranked the environmental improvements that could be made if the land were taken out of production. Congress targeted enrollment eligibility to highly erodible land and other lands that posed an off-farm environmental threat. The USDA estimates that the average erosion rate on enrolled acres was

reduced from 21 to less than 2 tons per acre per year. Even though the new CRP program was rooted in resource conservation, it was still more of the same—supply control and income support. The programs implemented by this farm bill had the potential to make great impacts in conservation, but it would take the SCS a few years to put the actual infrastructure together to make these programs a reality.

1990s—Keep Conservation Rolling

Farm bills passed during the 1990s continued the advancements in conservation that were made in 1985. 1990 witnessed the establishment of the Wetland Reserve Program (1 million acres) and the Ag Water Quality Protection Program (10 million acres). The **Food, Agriculture, Conservation, and Trade Act** of 1990 (PL 101-624) addressed ground water pollution, water quality, and sustainable agriculture, and allowed for the use of easements, as well as amending existing programs. This period also highlighted the importance of natural systems larger than individual farms: landscapes, watersheds, and ecosystems (Zinn, 2001).

The 1996 program extended CRP sign-ups and formed a new structural, vegetative, and land management conservation program EQIP (Environmental Quality Incentives Program). EQIP started with \$200 million in annual funding, half of which went to livestock producers for technical and cost-share assistance in addressing environmental improvements on their operations. The other half went into programs that EQIP consolidated: ACP, Great Plains Conservation Program, Water Quality Incentives Program, and Colorado River Basin Salinity Control Pro-

gram. The ACP, which was once the dominant conservation program, was cash starved out of existence. A new program, Wildlife Habitat Incentives Program (WHIP), was established to help induce wildlife habitat reclamation from production acreage. Conservation compliance lost its teeth through the farm lobby process; many farmers deemed it too intrusive on their activities. In 1994, the Soil Conservation Service was renamed Natural Resources Conservation Service (NRCS).

The language of the 1996 Bill began to reflect a change from “targeting the ACP program to specific practices in all counties” to targeting EQIP to “maximize environmental benefits per dollar expended” with less regard to making certain all counties participated. Programs were targeted to special “conservation priority areas,” which functioned to restrict the flow of conservation dollars away from the general farming public into areas deemed environmentally critical. This began an applicant process known as “bid down,” because landowners usually had to accept a lower-than-maximum cost-share rate to be accepted into the program in order to satisfy the program’s environmental objectives (Helms, 2003). Although focusing upon maximizing environmental benefits was an ambitious step forward, the 1996 Farm Bill was only marginally successful in altering the distribution of resources, and there was still substantial targeting of funds for reasons other than environmental efficacy.

2000s—Going Green

The 2002 **Farm Security and Rural Investment Act** (PL 107-171) continued to emphasize conservation by increasing EQIP funding from less

than \$200 million to \$1.3 billion over several years and establishing a new Conservation Security Program (CSP). Environmental enhancement now took priority over other benefits, such as productivity and supply control. The 2002 Bill also removed restrictions that limited the ability of the USDA to assist larger farmers (Lovejoy & Doering, 2002). The CSP pays producers to adopt or maintain practices that address resources of concern, such as soil, water, and wildlife. This “green payment” program openly recognized that farmers who had strived for conservation and environmental enhancement also deserved some financial assistance. The CSP is a three-tier system; higher tiers require greater conservation effort and offer greater payments. However, to date, the program is still significantly underfunded. This can be blamed partially on the funding pipeline, which is connected to the CCC instead of the general congressional funding. Lobbyists believed that by funding the CSP through the CCC, the program would not be prone to the pitfalls of budgetary reductions. However, the weather dictated otherwise, as the CCC funding quickly vanished in the form of disaster payments to producers after a string of flooding in the early part of the decade. In 2004, a total of 2,188 CSP contracts were approved (all farms that applied were accepted) covering 1,885,400 acres in 18 watersheds at a cost of \$35 million. Of the 27,300 farms in the 18 watersheds, only 8% of farms applied and received contracts, comprising 14% of the 14 million eligible acres. The NRCS has announced plans to increase from 18 to 202 watersheds in 2005, which includes about 208,000 eligible farms and ranches and more than 83 million acres of

farmland. These 202 watersheds are located in portions of all 50 states and Caribbean territories, thus greatly broadening the scope (and presumably the cost) of the CSP program.

Land retirement programs expanded by this legislation placed a particular emphasis on wetlands. CRP acreage was increased from 36.4 to 39.2 million acres, and an additional 1.2 million acres were added to the WRP. The 2002 Bill also created a Grassland Reserve Program (GRP) to assist landowners in restoring and conserving grasslands. WHIP received a tenfold funding increase over the 1996 Bill. The Farmland Protection Program, which provides funds to state, tribal, or local governments and nonprofit organizations to help purchase easements against the development of productive farmland, also received increased funding.

The Farm Security and Rural Investment Act increased funding for environmental programs by 8 times over the 1996 Farm Bill, but recent increases in defense and homeland security spending have made getting money to these programs difficult. The 2002 Bill sought to reduce targeting funds by developing a regional equity provision. This provision gives priority conservation program funding to any approved application in any state that has not received at least \$12 million in funding for the fiscal year. The “bid down” process was also removed, and least cost was no longer used in selecting from applications with similar environmental benefits. The 2002 Bill shows a fundamental change in the process of environmental spending. Congress and the USDA would no longer attempt to simply maximize the number of acres in conserving uses, but rather maximize the environmental benefits for the expended funds in

all of the conservation titles, (e.g., the maximum environmental bang for the buck; Lovejoy & Doering, 2002).

Future of Farm Bill Conservation Programs

What will conservation programs of future farm bills look like? Let's get out the crystal ball. The average forecasted outlays of the Commodity Credit Corporation, \$16.5 billion, represents about one third of total annual net cash farm income. This only signifies the importance of farm program payments to the near future of agriculture. Since we likely will not abandon farm subsidies anytime soon, we need to examine where that funding might go. Green payments, such as the CSP program, hold real potential for environmental benefit while retaining producer income support. The upside to such a policy would be increased environmental protection and reaching compliance in the World Trade Organization. The WTO does not view conservation payments (unlike other subsidies) as distorting international trade, as long as they are used to make conservation gains. The downside to such programs is the cost associated with them. In a green payment system such as the CSP, almost every producer would be entitled to payments, not just those growing specific crops. Moving to such payments could decrease productivity, essentially driving up food prices. They require more planning and input from agencies like the NRCS, costing more money and further intruding on the farmers' independence. It will be interesting to see where the tradeoffs will be made among Americans' desire for a healthy environment, low taxes, cheap food, a profitable agricultural sector, and a dynamic rural economy. In an age of

big budget deficits, it is probably safe to assume that we might not see a switch to solely green payments in the next farm bill, but rather a fight to keep the conservation payments we currently have. It is more likely that we will see a reform in the way direct payments are made to producers with continued countercyclical-type payments to buffer against the bad years. If the best indicator of future behavior is past behavior, we should not expect revolutionary changes in Congress's handling of the next farm bill, but rather continued evolutionary change of conservation policy and continued support for some level of commodity payments and disaster relief. A recent initiative by some agricultural lobbying groups suggests declining support for acreage retirement programs and increasing support for full production. The balance between the desires of these groups and the environmental concerns of other groups remains to be seen.

Conclusions

During the Great Depression the federal government began a system that invested in the rural agricultural economy to help farmers face tough times. Before this time, the USDA provided research, marketing, and extension services. Now they were attempting to provide income and crop price support to the impoverished American farmer. The mode of this funding ended up being conservation programs, and the government spent greatly, as indicated in Table 1. This program continued to evolve over the decades, changing

from a vehicle of income, price, and supply control into an environmental resource management program that only occasionally manipulates income, price, and supply. Early farm bills sought to help the producer control erosion and increase productivity of the land; later acts attempted to control the overall supply of commodities to boost prices. Since 1985, great strides have been made in conservation titles of our nation's farm bills, bringing into focus the true importance of the balance of natural ecosystems and production agriculture. We are far from finished with this task; there are still many problems of production agriculture that need to be reconciled. This will be the duty of future farm bills—to continue to provide farmers the opportunity to become better stewards of the land. The future of green payments will likely be a function of time, available dollars and congressional will.

For More Information

Bowers, D.E., Rasmussen, W.D., & Baker, G.L. (1984). *History of agricultural price-support and adjustment programs, 1933-84* (Agricultural Information Bulletin 485). Washington, DC: USDA ERS.

Doering, O.C. (2000, May). *Technology and structural changes in agriculture since 1900*. Presentation to Sec. of Agriculture Glickman, USDA Conference Visions for the Millennium: Structural Changes Facing Livestock and Grain Markets in the 21st Century, Kansas City, MO.

Doering, O.C. (1999). *Farming's future*. Forum for Applied Research and Public Policy.

Doering, O.C. (1997, Feb.). An overview of conservation and agricultural policy: Questions from the past and observations about the present. *Agriculture and Conservation Policies, A Workshop in Honor of Norman A. Berg*.

Helms, J.D. (2003, Dec.). The evolution of conservation payments to farmers. *Compensating Landowners for Conserving Agricultural Land*. Davis, CA: U.C. Davis Community Studies Extension Conference.

Hurt, R.D. (2002). *Problems of plenty: The American farmer in the twentieth century*. Chicago: Ivan R. Dee.

Lovejoy, S. & Doering, O.C. (2002). *Conservation and environmental enhancement in the 2002 farm bill* (publication CES-344). Purdue University Cooperative Extension Service.

Napier, T.L. (Ed.). (1990). *Implementing the conservation title of the food security act of 1985*. Soil and Water Conservation Society.

Zinn, J.A. (2001). *CRS report: IB96030: Soil and water conservation issues*.

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