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**A Small Step Forward: Environmental
Protection Provisions in the 2002 Farm Bill**

by

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A Small Step Forward: Environmental Protection Provisions in the 2002 Farm Bill

Jesse Ratcliffe*

The Farm Security and Rural Investment Act of 2002 (“2002 Farm Bill”) is the latest in a long succession of federal legislation designed both to provide income security to American farmers and to address the environmental consequences of agriculture. The 2002 Farm Bill represents an advance in agricultural environmental policy, both in program design and resource allocation. Unfortunately, as in previous iterations, the Bill’s farmer income support provisions unnecessarily create additional environmental harm, while the Bill’s environmental provisions suffer from a lack of comprehensiveness and from their predominantly voluntary nature. This Comment concludes by recommending changes to address these limitations when the Bill comes up for reauthorization in 2007.

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INTRODUCTION

Despite nearly seventy years of conservation efforts in agricultural law, farming continues to create significant environmental damage. The Farm Security and Rural Investment Act of 2002¹ (most commonly referred to as the “2002 Farm Bill”) attempts to remedy this situation by authorizing several new conservation programs, and expanding the scope and funding of existing programs. Although the Bill improves on past efforts in several ways, it will not be sufficient to make agriculture environmentally sustainable.²

The central weakness of the 2002 Farm Bill’s environmental provisions is that the Bill, like farm bills of the past,³ is not an environmental statute. It is aimed at maintaining a stable, productive, and internationally competitive agricultural industry.⁴ Most of the provisions and authorized funding in the Bill are devoted to supporting farm income through “commodity programs,” an overarching term for a group of subsidies, income supports, and generous loan programs.⁵

1. Pub. L. No. 107-171, 116 Stat. 134 (codified in scattered sections of U.S.C.).

2. This Comment does not attempt to quantify the scale of the necessary improvements in environmental quality. Other authors have made significant contributions in this area. *See, e.g.,* J.B. Ruhl, *Farms, Their Environmental Harms, and Environmental Law*, 27 *Ecology L. Q.* 263 (2000). Further, and as will be demonstrated, the environmental improvements resulting from the 2002 Farm Bill will not be of sufficient size to create a realistic possibility that the cost of further improvements will outweigh the benefits. For these reasons, the Comment focuses instead on the methods by which future Congresses can achieve further improvement.

3. The 2002 Farm Bill is the latest in a series of omnibus agricultural legislation. Many of the provisions of both the current Bill and its predecessors contain sunset provisions. The 2002 Farm Bill is effective through fiscal year 2007.

4. *See* H.R. REP. NO. 107-191, pt. 1, at 93-94 (2001).

5. Commodity programs have been utilized since the 1930s as a means of stabilizing farmer income. DAVID ORDEN ET AL., *POLICY REFORM IN AMERICAN AGRICULTURE: ANALYSIS AND PROGNOSIS 1* (1999). The 2002 Farm Bill’s commodity programs are detailed and complex, and this Comment discusses commodity programs only in relation to their effects

As a result, there are two environmental concerns with the Bill. First, the conservation provisions of the Bill may not sufficiently reduce environmental harm. The second, more critical concern is that the provisions of the Bill directed toward stability, productivity, and competitiveness might actually create additional environmental harm. While other environmental legislation competes with conflicting federal policies (e.g., subsidies provided to the oil industry, by incentivizing production, may undermine the goals of the Clean Air Act), rarely are such conflicting policies written into the same statute. Thus, the internal tension in the 2002 Farm Bill complicates analysis of the Bill's conservation provisions.

This Comment evaluates the efficacy of the 2002 Farm Bill's new conservation provisions and proposes changes for the next Farm Bill. The changes would reduce the conflicts between farmer income support and conservation, and strengthen the overall environmental provisions. Part I briefly summarizes the environmental problems created by modern agriculture. Part II places the 2002 Farm Bill in the context of past conservation efforts, and describes the important features of the new law. Part III examines why past agricultural conservation programs have failed, and analyzes the conservation potential of the 2002 Farm Bill provisions. The Comment concludes by recommending amendments to the 2002 Farm Bill that Congress should incorporate when the Bill is considered for reauthorization.

I. THE EFFECTS OF AGRICULTURE ON THE ENVIRONMENT

The significant environmental consequences of the modern agricultural industry are well documented;⁶ therefore, this Comment does not discuss these impacts at length. The purpose of this section is rather to provide the reader the context necessary to effectively assess both the environmental provisions in the 2002 Farm Bill and the proposals advanced by this Comment.

The following is a list of some of the more significant known links between frequently used agricultural practices and threats to human

on the environment; therefore, the Comment necessarily paints them with a broad brush. For a summary of the 2002 Farm Bill's Commodity Title, see UNITED STATES DEPARTMENT OF AGRICULTURE, FARM BILL 2002: MATERIAL AVAILABLE ON THE USDA WEBSITE, at http://www.usda.gov/farmbill/commodity_fb.html (last updated June 19, 2002). See also Pub. L. No. 107-171, Title I, 116 Stat 134, 143-223 (2002) (codified in scattered sections of 7 U.S.C.).

6. For a more detailed discussion of the environmental costs and consequences of agriculture, see generally J.B. Ruhl, *Farms, Their Environmental Harms, and Environmental Law*, 27 *ECOLOGY L.Q.* 263 (2000); James Stephen Carpenter, *Farm Chemicals, Soil Erosion and Sustainable Agriculture*, 13 *STANFORD ENV'T L.J.* 190 (1994).

health, natural resources, and agricultural productivity. Monocropping⁷ increases soil erosion rates⁸ and causes declines in soil fertility, which in turn creates a need for increased amounts of synthetic fertilizers.⁹ Certain tilling practices also lead to soil erosion, threatening the future productivity of farmland.¹⁰ Soil erosion and fertilizer use create serious water quality problems and degrade aquatic ecosystems.¹¹ Irrigation practices and increased farming in arid climates further tax water resources. Pesticide use causes health problems for farm-workers,¹² results in the death of beneficial plants and animals, and may pose a health risk to the general public as it continues to leach into our drinking water supplies.¹³ These practices and problems have turned many farms into detrimental environments for wildlife, decreasing both individual species' populations and overall biodiversity.¹⁴ Finally, commodity programs intensify each of these problems by encouraging overproduction of crops.¹⁵

II. AN OVERVIEW OF AGRICULTURAL CONSERVATION PROVISIONS

Federal policymakers have long recognized at least some of the threats posed by the agricultural practices described above. Legislation designed to minimize the environmental impacts of agriculture has existed in some form for almost seventy years.¹⁶ Although these laws have grown and changed over the past years, in its drafting of the 2002 Farm Bill Congress recognized the need for further efforts.¹⁷ The Bill therefore includes several new conservation programs, as well as appropriations and substantive changes to some existing conservation provisions.

7. Monocropping is the practice of planting a single crop on a given area of farmland year after year. Carpenter, *supra* note 6, at 221.

8. Carpenter, *supra* note 6, at 221.

9. Kathleen Merrigan, *Government Pathways to True Food Security*, in *VISIONS OF AMERICAN AGRICULTURE* 155, 160 (William Lockeretz ed., 1997).

10. ROGER CLAASSEN ET AL., *AGRI-ENVIRONMENTAL POLICY AT THE CROSSROADS: GUIDEPOSTS ON A CHANGING LANDSCAPE* 16, available at <http://www.ers.usda.gov/publications/aer794/> (2001) (estimating cropland erosion totals at 1.89 billion tons/acre/year in 1997). Soil loss has decreased from 3.08 billion tons/year since 1982. *Id.* However, soil continues to be lost at a rate, on average, of twelve times the formation rate. Ruhl, *supra* note 6, at 279.

11. Estimates of the costs of soil, fertilizer and pesticide runoff on water quality average in the billions of dollars per year. Carpenter, *supra* note 6, at 211.

12. *Id.* at 193-95.

13. *Id.*

14. *Id.* at 216-19.

15. See, e.g., Allen H. Olson, *Federal Farm Programs – Past, Present and Future – Will We Learn From Our Mistakes?*, 6 *GREAT PLAINS NAT. RESOURCES J.* 1, 22-24 (2001).

16. See generally Frederick Steiner, *The Evolution of Federal Agricultural Land Use Policy in the United States*, 4 *J. OF RURAL STUDIES* 349 (1988).

17. S. REP. NO. 107-117, at 38 (2002) (“Despite the conservation successes from current USDA programs, the Committee recognizes that more can be done. For that reason, the Committee improves existing programs and creates new ones.”)

Past and present programs can generally be classified as falling into one of four policy tool categories: (1) voluntary working-lands programs; (2) voluntary land-retirement or set-aside programs; (3) voluntary farmland protection programs; and (4) mandatory conservation compliance programs.¹⁸ This Section briefly introduces each category of programs, summarizes significant examples, and highlights the most important changes made by the 2002 Farm Bill.¹⁹

A. Voluntary Working-Lands Programs

I. Description

Voluntary working-lands programs encourage farmers to adopt specific conservation practices on land in production. These programs are frequently accompanied by subsidies to encourage adoption, as well as technical assistance to aid implementation. The earliest federal voluntary working-land program paid farmers annually for choosing to plant soil-enriching rather than soil-depleting crops, and for using soil-enriching practices on cropland and pasture.²⁰ Subsequent approaches have included broadening the scope of covered environmental problems (e.g., from focusing solely on soil loss to including water conservation and quality, and a wide range of other environmental degradation),²¹ broadening the scope of approaches farmers may voluntarily adopt to solve problems (e.g., from problem-specific practices to whole-farm

18. These categories do not include the pieces of legislation more commonly thought of as United States "environmental law," including the Clean Water Act, the Clean Air Act, CERCLA, RCRA, and the Endangered Species Act. The reason for this exclusion is that in the case of each of these laws, agriculture has generally been exempted by statute, by regulation, or by practice. Ruhl, *supra* note 6, at 293-99. While there are a very few exceptions to this rule, to date these statutes have been ineffective in mitigating the environmental consequences of agriculture. For a thorough discussion of these issues, see generally Ruhl, *supra* note 6; David E. Adelman & John H. Barton, *Environmental Regulation for Agriculture: Towards a Framework to Promote Sustainable Intensive Agriculture*, 21 STAN. ENVTL. L.J. 3 (2002).

19. Numerous smaller programs are included in the 2002 Farm Bill. Most of these are either research programs, or smaller programs that utilize policy tools similar to ones described below. One of the smaller, but potentially more significant programs is cost-share funding for farmers who utilize renewable energy. 7 U.S.C. § 8106 (2003). Although the provision will not result in major energy source changes in the near future, if this demonstration program is successful, it could lead to an important additional source of revenue for farmers, while reducing dependence on more environmentally damaging forms of energy.

20. Soil Conservation and Domestic Allotment Act, 16 U.S.C. § 590a-590h(g) (2003) (payment provisions repealed by Pub. L. 87-703, Title 1, § 101(2), Sept. 27, 1962, 76 Stat. 605).

21. Wayne D. Rasmussen, *History of Soil Conservation, Institutions and Incentives*, in SOIL CONSERVATION POLICIES, INSTITUTIONS AND INCENTIVES 3, 10 (Harold G. Halcrow et al. eds. 1982).

conservation plans), and offering multi-year, as opposed to annual, payments.²²

2. 2002 Farm Bill Changes

The most important changes enacted by the 2002 Farm Bill affect voluntary working-lands policy. First, the Bill created the new Conservation Security Program (CSP).²³ The CSP provides incentives for producers to participate in the adoption and maintenance of conservation practices²⁴ at one of three tier levels. Eligibility under the CSP extends to all cropland that has been planted in four of the six years prior to 2002, as well as all grazing land, with the exception of lands that have been retired under the Conservation Reserve Program, the Wetlands Reserve Program, and the Grasslands Reserve Program.²⁵

The CSP offers two incentives. The first, available to all participants, provides up to a seventy-five percent rebate of the cost of adopting new conservation practices or maintaining existing ones.²⁶ The second incentive pays a percentage of the national average land rental price of the crops the farmer grows. The percentage is determined by the farmer's choice of program tier, with higher tiers requiring greater conservation effort, but offering larger percentages.²⁷ At the first tier, producers must address at least one resource of concern on at least part of their agricultural operation for a period of five years.²⁸ The second tier requires producers to address at least one resource of concern on their entire operation for a period of five to ten years.²⁹ The third tier requires producers to address all resources of concern on the entire operation for a period of five to ten years.³⁰ Total annual payments per producer may not exceed \$20,000 annually for Tier I contracts, \$35,000 annually for Tier II, and \$45,000 annually for Tier III.³¹

22. Great Plains Conservation Act of 1956, 16 U.S.C. § 590p (repealed by Pub. L. 104-127, Title III, § 336(b)(1), Apr. 4 1996, 110 Stat. 1006).

23. 16 U.S.C. §§ 3838-3838c(g) (2003).

24. These include a long list of practices (e.g., cover cropping, habitat conservation) that require "planning, implementation, management, and maintenance." 16 U.S.C. § 3838(3).

25. *Id.* § 3838a(b)(3).

26. *Id.* § 3838c(b)(1)(C)-(E). The cost-share rebate rises to ninety percent for those farmers defined as "beginning" and "limited resource" by the Secretary of Agriculture. *Id.* The Natural Resource Conservation Service, a division of the USDA, will make the determination of eligible practices. *Id.* § 3838a(d)(3)(A).

27. The first tier receives five percent, the second ten percent, and the third fifteen percent. *Id.* § 3838c(b)(1)(C)-(E).

28. *Id.* § 3838a(d)(5)(A).

29. *Id.* § 3838a(d)(5)(B).

30. *Id.* § 3838a(d)(5)(C).

31. *Id.* § 3838c(b)(2)(A).

Funding for the CSP comes from the Commodity Credit Corporation (CCC).³² The CCC is a wholly government-owned corporation that is authorized to borrow money to make funds available to farmers, as provided for in agricultural legislation.³³ The practical significance of the CCC mechanism is that programs funded through the CCC are not reliant on the congressional appropriations process, in theory making it more difficult for Congress to remove funding from a program. When Congress chooses to fund a program through the CCC, it authorizes the CCC to make a certain amount of funds available at the time the program is enacted.³⁴ In the case of the CSP, Congress initially chose not to place a limit on the funds available,³⁵ meaning that any farmer who was eligible to participate in the CSP would receive funding. In 2003, however, Congress amended the funding authorization to place a cap of approximately \$3.7 billion on the funds the CCC may make available between 2003 and 2013.³⁶

A second new program authorizes cost-share payments for farmers wishing to certify their farms under the United States Department of Agriculture's (USDA) federal organic standards program.³⁷ Producers and handlers may receive up to seventy-five percent of their annual organic certification cost, with a maximum expenditure of \$500 per producer or handler.³⁸ The Bill authorizes an appropriation of \$5 million, to remain available until expended.³⁹ Although the payment is for the certification process, rather than the development or maintenance of organic practices, farmers must follow strict, environmentally beneficial practices on their lands in order to obtain organic certification.⁴⁰

The Bill also reauthorizes several existing working-lands programs. The most significant of these⁴¹ is the Environmental Quality Incentives Program (EQIP), created as part of the Food Agriculture Improvement

32. *Id.* § 3841(a)(3).

33. 15 U.S.C. § 714b(i) (2003).

34. *See, e.g.*, 16 U.S.C. § 3841 (2003).

35. Pub. L. No. 107-171, Title II, Sec. 2701 (2002).

36. 16 U.S.C. § 3841(a)(3) (2003).

37. 7 U.S.C. §§ 6501-6522 (2003).

38. *Id.* § 6523(b). A "handler" is defined as one who sells, processes or packages agricultural products. *Id.* § 6502(8)-(9). A "producer" is simply a grower of food or feed. *Id.* § 6502(18).

39. *Id.* § 6523(a).

40. *Id.* §§ 6504, 6508.

41. Two smaller programs reauthorized by the 2002 Bill include the Wildlife Habitat Incentives Program, which provides cost-sharing for farmers who choose to develop and improve wildlife habitat, 16 U.S.C.A. § 3839bb-1, and the Conservation of Private Grazing Lands Program, which provides technical assistance (but no cost-sharing) for the conservation and enhancement of private grazing lands. *Id.* § 3839bb.

and Reform (FAIR) Act of 1996.⁴² As originally enacted, EQIP offered farmers five- to-ten-year contracts that provided financial and technical assistance in return for establishing conservation practices. The program was targeted to areas of environmental sensitivity (e.g., watersheds) that the Secretary of Agriculture designated as priorities.⁴³

The 2002 Farm Bill makes several changes to EQIP. It significantly increases program funding,⁴⁴ and mandates that funds come from the CCC.⁴⁵ The revised program also eliminates the targeting of specific conservation priority *areas*, instead focusing on conservation priority *practices*.⁴⁶ Other changes in EQIP include shortening the minimum contract length to one year (and thereby potentially decreasing the environmental commitment of producers),⁴⁷ and substantially increasing the maximum allowable payment that can be made to any one producer.⁴⁸

B. Voluntary Land-Retirement Programs

1. Description

Voluntary land-retirement and set-aside programs encourage farmers to take land out of production, and keep unused land out of production. In addition to their environmental goals, these programs are intended to reduce crop surpluses created by subsidies to farmers. The earliest land retirement statute used a since-abandoned technique; it

42. Pub. L. No. 104-127, 110 Stat. 888 (1996).

43. Pub. L. No. 104-127, Title III, Sec. 334. (amended 2002). The 1996 program also devoted half of available funds to livestock production, although it prevented large producers (as defined by the Secretary) from receiving cost-share funds for the construction of animal waste management facilities. *Id.* The 2002 iteration increases to sixty percent the fraction of funds available for livestock projects, and makes large producers of livestock eligible for funds to construct animal waste management facilities. *See* USDA ECONOMIC RESEARCH SERVICE, *supra* note 44. While there is substantial controversy surrounding the adverse social and environmental impacts of confined animal feedlots, and therefore of government financial support of these entities, the debate is beyond the scope of this Comment.

44. The 2002 Bill increases funding to a total of \$5.8 billion over the six-year life of the program, an increase of \$4.3 billion from the 1996 FAIR Act. USDA ECONOMIC RESEARCH SERVICE, FARM BILL 2002: MATERIAL AVAILABLE ON THE USDA WEBSITE, at <http://www.ers.usda.gov/Features/farbill/titles/title11conservation.htm> (last updated June 19, 2002).

45. 16 U.S.C. § 3841(a)(6) (2003).

46. USDA ECONOMIC RESEARCH SERVICE, *supra* note 44.

47. 16 U.S.C. § 3839aa-2(b)(2) (2003).

48. The limit on payments increases from no more than \$50,000 per producer over the length of a contract to no more than \$450,000 per producer over the six-year length of the EQIP program. *See* USDA ECONOMIC RESEARCH SERVICE, *supra* note 44.

authorized the outright purchase and retirement from production of sub-marginal lands, which were then rehabilitated.⁴⁹

More recent laws favor an approach currently embodied in the Conservation Reserve Program (CRP), which was enacted as part of the Food Security Act of 1985.⁵⁰ The CRP pays farmers to take land out of production and put it to uses consistent with conservation purposes for a period of ten years, although some limited types of production are still allowed in certain circumstances.⁵¹ While initially geared toward highly erodible land, many types of sensitive land are currently eligible for enrollment, with priority determined by an expected-benefit ranking system.⁵² Congress has also applied the basic structure of the CRP to the Wetlands Reserve Program (WRP), a program specifically targeted at the preservation of wetlands.⁵³ The WRP, however, operates by purchasing permanent or thirty-year easements, as opposed to the shorter-term contracts utilized by the CRP.⁵⁴

2. 2002 Farm Bill Changes

The 2002 Farm Bill reauthorizes the CRP and the WRP. The primary changes to the CRP are the allowance of additional practices (including haying, grazing, and the placement of wind turbines) on CRP land, provided the practices are consistent with the program's conservation goals,⁵⁵ and an increase in the maximum acreage that may be enrolled in the program at any one time.⁵⁶ The Bill also increases the WRP's acreage limit.⁵⁷

The Bill also establishes the Grassland Reserve Program (GRP), which combines elements of the CRP and WRP to prevent the

49. Bankhead-Jones Farm Tenant Act, 7 U.S.C. §§ 1000-1029 (repealed in relevant part by Pub. L. 87-128, Title III, § 341(a), Aug. 8, 1961, 75 Stat. 318).

50. 16 U.S.C. § 3831-3836(d) (2003).

51. *Id.* The CRP allows the Secretary of Agriculture and/or local agricultural conservation districts significant discretion in determining the precise allowable uses on a given piece of property. For example, the Secretary has the authority to allow grazing and timber harvesting on CRP land, as long as the Secretary determines that such uses do not conflict with the conservation purposes of the program. *Id.* § 3832.

52. David J. Walker & Douglas L. Young, *Conservation Policy Issues, in CONSERVATION FARMING IN THE UNITED STATES: THE METHODS AND ACCOMPLISHMENTS OF THE STEEP PROGRAM* 193, 195-96 (Edgar L. Michalson et al. eds. 1999) ("The expected-benefit ranking system ranks CRP bids in descending order based on the ratio of expected environmental benefits to government costs."). Environmental benefits include wildlife habitat protection, surface and groundwater quality protection, and prevention of wind and water-based erosion.

53. 16 U.S.C. § 3837.

54. *Id.* § 3837a(e).

55. *Id.* § 3832(a)(7).

56. The acreage limit increases from 36.4 million to 39.2 million acres. *Id.* § 3831(d).

57. The WRP's acreage limit increases from 1.075 million to 2.275 million acres. *Id.* § 3837(b)(1).

conversion of grasslands to other uses, and works to restore areas that have been historically dominated by grass or shrubland.⁵⁸ GRP funds are used to purchase thirty-year and permanent conservation easements, and ten- to thirty-year rental contracts.⁵⁹

C. *Voluntary Farmland Protection Programs*

1. *Description*

Voluntary farmland protection programs endeavor to prevent the conversion of agricultural land to industrial, commercial, or residential uses. Although they are not principally designed to achieve environmental benefits in the narrow sense (e.g., focusing on clean air or clean water), these programs may nonetheless help to preserve natural resources and prevent expansion into previously unfarmed areas. The first farmland protection program was enacted in 1981 as part of the Agriculture and Food Act, and remains in effect as of this writing.⁶⁰ The Program requires federal agencies to consider the adverse effects of federal action on farmland protection, and to take alternative action where appropriate.⁶¹ It also requires the USDA to ensure that federal actions do not compromise state, local, and private efforts to protect farmland.⁶² The other primary federal program is the Farmland Protection Program (FPP), which authorizes the USDA to purchase conservation easements to preserve farmland for agricultural use when the property bears attributes that the Secretary has defined as unique and valuable.⁶³

2. *2002 Farm Bill Changes*

The Bill reauthorizes the FPP, expands funding⁶⁴ for the program, and broadens the definition of eligible lands to include agricultural land with historical and archaeological resources.⁶⁵

58. Up to 2 million acres may be enrolled under the GRP. *Id.* § 3838n(b)(1).

59. *Id.* § 3838n(b).

60. Agriculture and Food Act of 1981, Pub. L. No. 97-98, 95 Stat 1213.

61. 7 U.S.C. §§ 4201-4209 (2003).

62. *Id.* § 4202(b).

63. 16 U.S.C. §§ 3838h-i. The FPP was created as part of the 1996 FAIR Act, and requires a minimum thirty-year term for easements, with preference for permanent easements.

64. Funding is increased from \$50 million over the life of the old FPP to \$472 million over the six-year life of the new FPP. *See* USDA ECONOMIC RESEARCH SERVICE, *supra* note 44.

65. 16 U.S.C. § 3838h(2)(A)(i)(II).

D. Mandatory Conservation Compliance Programs

1. Description

Mandatory conservation compliance programs require conservation practices on working land, and may also prevent land from being brought into production. Conservation compliance programs are a relatively recent development. Under the “sodbuster” and “swampbuster” provisions of the Food Security Act of 1985,⁶⁶ farmers who plow highly erodible land not previously in production or fill in wetlands lose eligibility for federal farm subsidies and benefits.⁶⁷ Farming any highly erodible cropland after 1990 without a conservation plan also results in benefits withdrawal.⁶⁸ Conservation compliance measures only apply to land covered by agricultural subsidies.

2. 2002 Farm Bill Changes

The Bill reauthorizes the sodbuster and swampbuster programs, but makes no other substantial changes to conservation compliance programs.

III. ANALYSIS

A. Reasons for the Failure of Past Conservation Programs

Federal policymakers have expended significant time and effort in designing agricultural conservation programs. Nevertheless, as described in Part I, agricultural activity continues to create serious environmental problems. Identifying weaknesses in past programs facilitates evaluation of the 2002 Farm Bill and illuminates areas of improvement for future bills.

First, some conservation programs have achieved limited success. The CRP has reduced rates of erosion, expanded habitat, enhanced water quality, and restored soil fertility.⁶⁹ The sodbuster program has also slowed rates of erosion⁷⁰ and preserved habitat. The swampbuster program has slowed the rate of wetlands conversion,⁷¹ and the WRP has

66. Pub. L. No. 99-198, 99 Stat 1354 (1985).

67. 16 U.S.C. §§ 3811(a), 3821(c). Benefit loss is for the year in which the violation occurred for highly erodible land, and is permanent for wetland conversion.

68. Neil D. Hamilton, *Legal Issues in Enforcing Federal Soil Conservation Programs: An Introduction and Preliminary Review*, 23 U.C. DAVIS L. REV. 637, 638 (1990).

69. CLAASSEN, *supra* note 10, at 16-17, 19.

70. *Id.* at 16.

71. *Id.* at 18-19.

led to significant wetland restoration.⁷² Unfortunately, these successes are small in relation to the magnitude of overall environmental degradation caused by agricultural activities.

There are five principal reasons why past programs have failed. First, the programs have generally been voluntary, allowing farmers to opt out when market conditions make conservation unprofitable. For example, a well-designed land retirement program can be an effective way of adequately protecting farmland that has unique environmental benefits and/or is too fragile to be farmed without causing excessive damage. Participation in the CRP, however, has been low in areas of high agricultural productivity, since it is more economically beneficial for farmers to keep such land in production than to accept payment from the government.⁷³ Moreover, farmers who do sign up for the CRP and other voluntary land-retirement programs may choose not to renew their limited-term contracts when market conditions are favorable. Research shows that much CRP land has returned to production once the initial contract has ended.⁷⁴ Thus, the Program often fails to adequately account for lands that are in need of permanent protection. As would be expected, the success of voluntary working-lands programs is also dependent on market conditions.

Second, neither the mandatory nor voluntary programs cover all the farms that contribute to environmental problems. Voluntary working-lands programs are not sufficiently funded to cover most farmland.⁷⁵ Conservation compliance programs are hampered because they only apply to farmers who are both eligible for and choose to participate in commodity programs.⁷⁶ While commodity programs cover a large portion of American farmland, they do not cover much of the most

72. *Id.* at 19.

73. Walker & Young, *supra* note 52, at 201, 209.

74. STANLEY R. JOHNSON ET AL., THE 1995 FARM BILL: ISSUES, OPTIONS, AND AN ANALYTICAL FRAMEWORK FOR INTEGRATED ECONOMIC AND ENVIRONMENTAL POLICY ASSESSMENT 6 (1994).

75. EQIP was funded at approximately \$200 million/year in the 1996 FAIR Act. Sandra S. Batie & Richard D. Horan, *Green Payments Policy 2*, at http://www.farmfoundation.org/2002_farm_bill/batie.pdf (last visited May 3, 2002).

76. See generally Pub. L. No. 107-171, Title I, 116 Stat 134, 143-223 (2002) (codified in scattered sections of 7 U.S.C.). Commodity programs provide farmers with subsidies, price supports, and generous loan programs for growing specified crops. I will refer to these market intervention programs interchangeably as "subsidies" or the "commodity program." Some scholars have also questioned whether the USDA has vigorously enforced the conservation compliance provisions. See DAVID ORDEN ET AL., POLICY REFORM IN AMERICAN AGRICULTURE: ANALYSIS AND PROGNOSIS 78 (1999); Jeffrey A. Zinn, *The Farm Bill: Soil and Water Conservation Issues* (1995), at <http://www.cnie.org/NLE/CRSreports/Agriculture/ag-6.cfm>. While this is an implementation problem, and not an intended limitation on the breadth of the program, it has the effect of limiting the number of farms covered.

environmentally degraded farmland in the country,⁷⁷ and do not include any fruit, vegetable or forage crop farms.⁷⁸

Third, some of the net benefits achieved by the CRP are lost since land retirement tends to raise crop prices. This provides additional incentives to bring new land into production or to increase intensity of production on lands already being farmed.⁷⁹ The CRP can mitigate this difficulty if the land being retired provides greater environmental benefits than the land being brought into production, or being farmed more intensively. Nevertheless, as the program is currently constituted, there is no way of ensuring these conditions are met.

Fourth, the provisions generally deal with only one or two problems at a time, rather than approaching problems systemically.⁸⁰ Voluntary working-lands programs, for example, focus too heavily on treating individual problems, rather than dealing with the farm as a whole.

Finally, the benefits of conservation programs have too often been counteracted by the damage of commodity programs. There are two principal reasons why past commodity programs have contributed to environmental degradation. First, in order to be eligible for these subsidy programs, farmers are required to grow certain crops.⁸¹ This limits crop rotation, which is one of the most successful working-lands conservation measures.⁸² Limiting rotations can increase rates of erosion and reduce soil fertility, which subsequently encourages dependency on fertilizer and pesticide inputs.⁸³ Moreover, by reinforcing current cropping patterns subsidies also limit the ability of farmers in other areas of the country to grow similar crops that are less harmful to the environment. For example, one study concluded that without sugar tariffs sugar beet production in the Midwest would likely have replaced more environmentally harmful sugar cane production in Florida.⁸⁴ Another study concluded that, in the absence of subsidies, farmers in regions that do not depend on irrigation

77. SARAH LYNCH & KATHERINE R. SMITH, *LEAN, MEAN AND GREEN: DESIGNING FARM SUPPORT PROGRAMS IN A NEW ERA* 9 (1994). Much of the most degraded farmland is planted in crops that are not covered by the commodity programs. *Id.*

78. Walker & Young, *supra* note 52, at 209. The commodity programs are limited to grain, legume (eg., beans) and pulse (eg., peas) crops. *Id.*

79. CLAASSEN, *supra* note 10, at 16.

80. This is a problem because of the interdependent nature of agriculture. A solution that deals with only one aspect of the problem (e.g., soil erosion), may lead to unintended consequences with respect to another aspect of the problem (e.g., pesticide usage), if all aspects of the problem are not considered jointly.

81. 7 U.S.C. § 7916 (2003).

82. Merrigan, *supra* note 9, at 160.

83. *Id.*

84. *Id.* at 159.

would probably cultivate a larger percentage of drought-resistant crops, such as hay corn and wheat.⁸⁵

The second problem with commodity programs is that farmers frequently use these funds for environmentally damaging activities. Such activities include increasing the intensity of production on working-lands, increasing the amount of land in production, and propping up farms that would otherwise be unprofitable. Programs such as the CRP, which in addition to protecting fragile land are designed to mitigate the harmful side-effects of the commodity programs, have been unsuccessful in doing so.⁸⁶

B. Likelihood of Environmental Improvement Under the 2002 Farm Bill

The new and modified programs in the 2002 Farm Bill reduce the environmental harms of agriculture to some degree. The Bill succeeds in raising overall conservation spending by eighty percent.⁸⁷ Moreover, by designating the Commodity Credit Corporation as the source of much of the additional funding, the Bill circumvents potential fund reduction during future appropriations processes. Guaranteed increased funding for the Environmental Quality Incentives Program will result in greater protection of working-lands; augmented funding for the WRP and the new GRP will remove of more fragile lands from production.

The Bill also makes a significant advance in conservation program design with the introduction of the Conservation Security Program. The addition of the CSP improves agricultural conservation efforts for a number of reasons: it is directed at lands in production, but is not limited to acres eligible for the commodity program; the highest payment tier requires farmers to develop a whole-farm conservation plan, rather than addressing only one problem at a time; and it is established as an entitlement, so qualified farmers with approved plans are guaranteed funds until the funding cap imposed on the program is reached.⁸⁸ This last improvement eliminates the need for an allocation system, which has led to waiting lists and backlogs in other conservation programs.⁸⁹ Finally, the CSP, by paying farmers rent for each acre enrolled in the program, becomes the first program to offer more than just cost-share payments for

85. *Id.*

86. Olson, *supra* note 15, at 22.

87. J.J. Haapala, *Farm Bill Offers Historic Benefits to Organic Growers*, IN GOOD TILTH, Jun.-Jul. 2002, at 1. The bill provides over \$18 billion in total conservation spending over the next five years. S. REP. NO. 107-117, at 38.

88. The funding cap is approximately \$3.7 billion. 16 U.S.C. § 3841(a)(3) (2003).

89. Todd Kimm & Robert Karp, *Sustainable Ag Meets Capital Hill: The Sunny Side of the Farm Bill*, at www.pfi.iastate.edu/Newsletter/Farm_Bill.htm (last visited Dec. 31, 2002).

conservation of working lands. This improvement could increase incentives to participate in the program.

Despite the benefits there are several factors that may reduce the efficacy of the CSP. First, the USDA must promulgate a number of regulations before it implements the program. A drawn-out rulemaking process would delay implementation and thereby decrease the program's effectiveness. To prevent this from occurring, the Bill requires that rules for the program's implementation be adopted within 270 days of the passage of the statute.⁹⁰ A potentially greater problem lies in calculating the amount farmers will be paid for individual practices. While some practices have known costs, others, such as implementing an expanded crop rotation, will be very difficult to measure. Finally, state conservationists will determine the resources of concern for farmland within each state.⁹¹ The aggressiveness of a state in making these decisions may also affect the success of the program.

Even assuming that the CSP is successfully implemented, the introduction of the CSP and the augmented levels of funding for other programs will not solve agriculture's environmental problems, nor even reduce them to sustainable levels. This is because the 2002 Farm Bill does little to address the primary reasons for the failings of past agricultural legislation,⁹² as described *infra*. First, the Bill continues the commodity programs. Second, the Bill's mandatory programs remain limited both in the amount of agricultural land they reach and the types of environmental degradation they target. Third, the CSP goes further than past voluntary programs by potentially reaching all farms creating environmental problems and adopting systematic solutions, but it is still voluntary. Producers may cancel their CSP contracts without penalty, provided that they have abided by the contract up to the point of cancellation.⁹³ Finally, CSP payments may induce farmers to bring more acres into production, thereby increasing environmental damage, even if the amount of damage per acre has decreased. This problem is mitigated in the highest tier of CSP payments by requiring a whole-farm conservation plan,⁹³ but the lower tiers of the CSP may still encourage such behavior. Until agricultural programs deal with these fundamental shortcomings, unacceptable environmental consequences will continue.

90. Pub. L. No. 107-171 § 2001(b) (2002). However, as of October 7, 2003, the Secretary had still not promulgated a final rule for the CSP, well past the 270 day deadline.

91. 16 U.S.C. § 3838a(d)(3)(B) (2003).

92. *Id.* § 3838a(e)(3)(A).

93. *Id.* § 3838a(d)(5)(C)(ii).

IV. MOVING FORWARD: SUGGESTIONS FOR THE NEXT FARM BILL

As indicated by the discussion of the primary failures of the 2002 Farm Bill and past agricultural conservation legislation, the next Farm Bill should make two primary policy changes. First, Congress should end subsidies not linked more substantially to conservation. This could mean either an outright end to the commodity program, or a redirection of commodity program funds to farmers who commit to conservation practices that eliminate overproduction and achieve greater benefits than those envisioned by sodbusters and swampbusters. Second, all farmers should be required to participate in a comprehensive regulatory scheme. Farmers who refuse to undertake measures required by this scheme should be penalized.

These two recommendations raise a wide range of policy issues, and agricultural policy experts have debated a variety of possible methods for implementing them. The final section of this Comment highlights some of the more important of these issues and provides suggested solutions to them.

A. Ending Subsidies vs. Redirecting Subsidies

As described in Part III, the current agricultural subsidy regime creates substantial environmental problems. However, the question of whether to continue agricultural subsidies is a complex one, and the negative environmental consequences of subsidies are unlikely to be politically influential.⁹⁴ Even if greater social benefits would accrue from eliminating subsidies rather than redirecting them toward environmental goals, it is far from clear that their elimination is politically feasible, especially if such a moratorium is tied to new environmental requirements.

Previous attempts to abolish subsidies have failed. The 1996 Food Agriculture Improvement and Reform Act contained provisions for a seven-year gradual phase-out of agricultural subsidies.⁹⁵ When commodity prices declined following the passage of the Act, however, Congress provided farmers with "emergency" payments in each year leading up to the 2002 Farm Bill.⁹⁶ When the Bill came up for reauthorization in 2002, Congress responded to farmer requests and prevented achievement of the 1996 FAIR Act's commodity program

94. See ORDEN ET AL., *supra* note **Error! Bookmark not defined.**, at 224-25. (arguing that the ending of subsidies will depend upon the economic condition of farmers and the attitudes of Congress towards agricultural at the time of the Farm Bill reauthorization).

95. Jeffrey A. Peterson, *The 1996 Farm Bill: What to (re) do in 2002*, 11 KAN. J.L. & PUB. POL'Y 65, 71 (2001).

96. *Id.* at 72.

goals.⁹⁷ Given the cyclical nature of farm prices and the power of farm interests in Congress, any solution to agriculture's environmental problems that depends too heavily on the elimination of subsidies may not be achievable.

If eliminating subsidies is either politically unlikely or on the whole detrimental to society,⁹⁸ subsidies should be redirected to improve environmental outcomes. There are a number of issues that any environmentally targeted subsidy program would have to address.

First, an environmentally targeted subsidy program must comply with World Trade Organization (WTO) agreements. The current WTO Agreement on Agriculture⁹⁹ limits payments from governments to farmers based on production or price levels,¹⁰⁰ but does not restrict policies that grant a stream of revenue without modification based on production, income, or prices.¹⁰¹ The agreement further provides that payments for environmental purposes must be part of clearly defined government environmental programs, have no or minimal trade distorting effects, and be limited to subsidizing the added cost or lost income from the practice adopted or technology shift accomplished.¹⁰² Farmers could therefore receive payments for all net benefits for which the market does not compensate.¹⁰³

In practice, there is no cap on the current policy of paying farmers based on acreage, de-coupled from production or price levels. In contrast, the amount that the government could spend on a program that supplemented farm income when income dropped below a certain point is capped.¹⁰⁴ Further, although payments for the value of environmental benefits might be restricted, payments for the cost of creating such benefits would not be.

97. S. REP. NO. 107-117, at 29-30 (2002).

98. The potential benefits that may arise from subsidies, including a stable, secure food production system and stable rural economies are hotly disputed. They are also not environmentally related, and are therefore outside the scope of this Comment.

99. Uruguay Round Agreement, Agreement on Agriculture, available at http://www.wto.org/english/docs_e/legal_e/legal_e.htm

100. Peterson, *supra* note 95, at 73-74. The WTO agreement does not prohibit all such payments; rather, it sets a cap on the total amount of payments. Currently, the cap is lowered each year in an effort to phase out trade-distorting subsidies. *Id.*

101. *Id.* For example, a flat yearly payment to a corn farmer of \$10,000, paid regardless of the price of corn or the amount of corn the farmer produced is not limited by the Agreement on Agriculture. A payment of \$1.00 per bushel of corn, or a payment that is conditional on the market price of corn being less than \$1.00 a bushel, is limited by the Agreement.

102. Agreement on Agriculture, Annex 2, available at http://www.wto.org/english/docs_e/legal_e/legal_e.htm (December 31, 2002).

103. Peterson, *supra* note 95, at 80-81.

104. Peterson, *supra* note 95, at 74.

The next round of WTO negotiations is currently underway, and while it is too early to predict the results of the negotiations, proposals have been made to further limit the ability of governments to subsidize farmers.¹⁰⁵ Therefore, any proposal to tie subsidies to environmental outcomes must consider potential effects on trade requirements.

Second, environmentally targeted subsidies should be based on the cost of implementing conservation practices, or a percentage thereof. To avoid penalizing environmentally committed farmers, farmers who are already implementing practices required under the mandatory program should receive payments for prior implementation costs. The alternative to a cost-based payment system is a benefit-based system. In a voluntary regime, a benefit-based system may be more cost effective;¹⁰⁶ however, if the regime is mandatory (as proposed here), it makes little sense to base pay on actual or estimated benefits. Farmers would object to receiving different payments when they would be required to implement similar practices. Further, benefit maximization under a mandatory program can be achieved by requiring different practices or standards on different farms based on expected cost-effectiveness.

Third, receipt of subsidies for implementation should be based on the farmer's ability to pay for environmental practices. Currently, ineffective payment limitations in the commodity program mean that a small number of the biggest and best-capitalized producers receive the majority of benefits.¹⁰⁷ To prevent this from continuing to occur, an environmentally tailored subsidy program should include either a cap on the amount of support or an outright denial of subsidies to the largest and most profitable farms. If political expediency requires that these producers continue to receive some form of subsidies, payment limitations should at the least be made more stringent.

The main difficulty in designing a subsidy system based on the ability to pay is complying with WTO agreements. As noted above, payments to farmers based on farm income may not be legal under the WTO. Acreage could serve as a potential proxy for income, with a cap on payments once a certain acreage level is reached. This is preferably accomplished by measuring acreage held by the farmer rather than acreage in production, which avoids incentives to place more land in production. The rules

105. WTO, MODALITIES PHASE: CHAIRPERSON'S OVERVIEW PAPER (Dec. 18, 2002), available at http://www.wto.org/english/tratop_e/agric_e/negoti_modoverview_e.htm

106. The USDA's experience with the CRP has shown that cost-effectiveness can be improved by targeting payments to lands that will yield the highest benefits. CLAASSEN, *supra* note 10, at 24.

107. Kimberly Stuart & C. Ford Runge, *Agricultural Policy Reform in the United States: An Unfinished Agenda*, THE AUSTRALIAN JOURNAL OF AGRICULTURAL AND RESOURCE ECONOMICS No. 41-1, at 117, 118 (1997).

would have to be drafted stringently to prevent farmers from setting up multiple entities and applying for payments under each entity.

A final problem with retargeting subsidies is that farms with the greatest potential environmental benefit are not necessarily farms most in need of income support.¹⁰⁸ If Congress feels that providing financial support beyond cost sharing is important, it could continue to authorize income-support payments, but require recipients to comply with environmental requirements. Again, payments could probably not be made on the basis of farm income because of WTO compliance issues, but a more limited version of the current subsidy program could remain in place (with only those who had previously received subsidies being eligible for them, but totally decoupling the receipt of payments from the types of crops grown to ensure farmers could use the most environmentally-sound crop rotations), with stricter acreage limits and entity requirements to avoid subsidizing large operations as much as possible.

B. *Designing a Mandatory Regulatory Program*¹⁰⁹

Regardless of the outcome of the subsidy debate, a mandatory approach to conservation is necessary to address the failings of past agricultural conservation legislation. The design of any regulatory scheme involves a great many considerations; the purpose here is merely to note some of the major issues, and provide suggestions for specific methods of resolving them.

First, the program should be based on mandatory practices, rather than outcomes. This may seem counter-intuitive, given that basing the scheme on outcomes would allow producers the flexibility to choose the least-cost measures of attaining the outcomes. However, current measurement tools are not always accurate or cost-effective.¹¹⁰ A USDA study estimated that paying for performance would achieve greater conservation benefits per dollar if planning and enforcement costs were not considered. The study concluded, however, that these planning and enforcement costs are significant enough to potentially make a performance-based program more expensive than a practices-based

108. CLAASSEN, *supra* note 10, at 27-28. A USDA study determined that directing payments to farms on the basis of financial or income criteria means that payments would not reach a large amount of land with environmental problems.

109. A mandatory program would work in tandem with any remaining subsidies. Farmers would have to be in compliance with the program to receive subsidies. The purpose of subsidies in conjunction with a mandatory program would of course be to ease the burden of implementing the program.

110. CLAASSEN, *supra* note 10, at 33; *See also* Batie & Horan, *supra* note 75, (citing Claassen & Horan 2000).

program.¹¹¹ Fortunately, there are a number of well-established and developing practices that have been shown to achieve substantial results, even if frequent, reliable, cost-effective measurement is not possible.¹¹² The primary problem with basing the scheme on practices, rather than outcomes, is that there is no guarantee of achieving any particular outcome. For this reason, the USDA should evaluate a mandatory program every few years to ensure that the required practices are resulting in cost-effective benefits.

Second, management practices should be developed locally. Uniform outcome or management standards would be easier to apply than nationwide standards. They would also prevent disparities based on local willingness to develop standards, rather than on actual differences in farming conditions. Agriculture's unique characteristics would, however, make uniform standards highly inefficient.¹¹³ National standards are most effective when the costs of achieving the standards are relatively consistent for the regulated community.¹¹⁴ Agricultural producers, however, would have almost infinite variability in compliance costs given the great variability of producer size, product type, ecosystem, etc.¹¹⁵ This variability also means that what may be a significant problem in some areas is not worth regulating in others. For example, the northern and southern plains regions tend to have significant wind-blown erosion problems, while the eastern seaboard tends to have greater water quality problems.¹¹⁶

One method of retaining national practice or outcome standards while accounting for variability would be to allow farmers to demonstrate that their own management practices would be adequate substitutes for required practices, or would still meet outcome standards while reducing costs.¹¹⁷ For example, the sodbuster program's flexibility in allowing farmers to customize their conservation plans has resulted in over 1,600 variations on conservation systems nationwide that have brought erosion to compliance levels.¹¹⁸

111. CLAASSEN, *supra* note 10, at 47.

112. Carpenter, *supra* note 6, at 224-26.

113. See Harry S. Baumes & Parveen Setia, *Environmental Issues and Sustainable Agriculture*, in SUSTAINABLE AGRICULTURE AND THE 1995 FARM BILL 18, 19 (1995).

114. See PLATER, ET AL., ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, AND SOCIETY 116-17 (2d ed. 1998).

115. See Ruhl, *supra* note 6, at 329-30; Walker & Young, *supra* note 52, at 205 (demonstrating, for example, that similar levels of expenditure result in varying degrees of erosion reduction, depending upon soil type).

116. Ralph E. Heimlich, *Targeting Green Support Payments: The Geographic Interface Between Agriculture and the Environment*, in DESIGNING GREEN FARM PROGRAMS: A RANGE OF OPTIONS 11, 24-27, 30-33, 38 (Sarah Lynch ed., 1994).

117. Baumes & Setia, *supra* note 112, at 20.

118. CLAASSEN, *supra* note 10, at 24.

Allowing farmers to vary practices where appropriate would likely result in greater cost-effectiveness in achieving each environmental goal. However, it would not solve the problem of regional variance of environmental problems. Requiring a certain practice because it reduces wind erosion is inefficient if wind erosion is not a problem in a particular area, regardless of whether farmers can use more cost-effective wind erosion reduction practices. For this reason, standards should be determined on a more local basis - perhaps on a watershed level, or on a Soil Conservation District (SCD) level.¹¹⁹ SCD's originated in the 1930s as a means of addressing soil erosion at a local level.¹²⁰ SCD's are creatures of state law, organized along county political lines, and independent of the USDA.¹²¹ SCD officials, in particular, have amassed a great deal of environmental information about each farm within their district, making them well-suited to determine resources of concern.¹²²

The principal problem with locally determined standards is the potential for inaction or weak implementation and enforcement. Soil conservation districts, which are agencies of the state, may in some areas lack the institutional capacity and resources to properly complete the job.¹²³ District managers may also oppose implementation of such a program for political reasons.¹²⁴ Nevertheless, the federal government is not powerless to prevent weak implementation. Local plans would undoubtedly need to be reviewed by the federal government both to ensure compliance by local agencies and national coordination of policy.¹²⁵ The federal government could easily condition disbursement of federal agricultural funds on compliance with the federal program.

Third, management practices should target farms with either particularly significant problems or potential for great benefits. A targeted program would likely be more fiscally efficient and less

119. John H. Davidson, *Conservation Plans in Agriculture*, 31 ENVTL. L. REP. 10501 (2001).

120. *Id.*

121. *Id.*

122. The CSP adopts an approach similar to this, granting the State Conservationist the power to determine the conservation priorities of the state and local areas. The State Conservationist makes this determination with the assistance of a technical committee, local producers, and conservation working groups. 16 U.S.C. § 3838a(d)(3)(B) (2003).

123. See Davidson, *supra* note 120. In Michigan, for example, Soil Conservation Districts are administered by unpaid elected officials. Sandra S. Batie, *Green Payments as Foreshadowed by EQIP*, (1999), at <http://www.aftresearch.org/researchresource/wp/wp98-8.html>.

124. Batie, *supra* note 124 (noting that in Michigan, local districts are governed by an unpaid elected board who are not necessarily supportive of the environmental goals of agricultural conservation programs).

125. Failure to coordinate policy nationally could result in inefficient use of resources. Merrigan, *supra* note 9, at 160 (providing as an example the possibility that one state may opt to allow non-agricultural development on prime farmland, resulting in another state having to use ecologically sensitive or marginal farmland to produce needed goods).

expensive in absolute terms.¹²⁶ One study of the CRP, for example, determined that had it been targeted more specifically when first introduced, program costs could have been lowered by almost \$450 million.¹²⁷ This is not to say that other farms should be exempt from implementing *any* management practices; otherwise, the important farms might have an incentive to degrade their own lands. Rather, all farms should be required to maintain certain basic practices, but farms with particularly great problems or with the potential for great benefits should be required to adopt additional practices. The political viability of targeting probably depends on whether targeted farms would receive compensation for their additional costs. If they did not, targeted farmers would certainly object. Despite this problem, targeting is important because it addresses the widely varying nature of farmland, thus maximizing the benefits of regulation.

Fourth, the program should approach environmental concerns systematically. Targeting a single environmental problem or mandating a single management practice is attractive from an implementation standpoint; however, it may do nothing to reduce other environmental problems,¹²⁸ and could theoretically even exacerbate them, depending on the nature of the solution.¹²⁹ Dealing with environmental problems on a system-wide level accounts for the interrelated nature of environmental harms and allows adjustments based on the unique physical and ecological characteristics of each piece of land.

A system-wide approach is not as daunting in the agricultural context as it may initially sound. The Natural Resources Conservation Service (NRCS; an arm of the USDA, and formerly known as the Soil Conservation Service) requires farmers to develop resource plans in order to participate in the CRP and WRP. The NRCS therefore has some expertise in administering a program geared towards the overall health of a piece of land, as opposed to individual problems or practices.¹³⁰ The NRCS also has another kind of expertise. Along with local Soil Conservation Districts, the NRCS has detailed environmental

126. COUNCIL FOR AGRIC. SCI. AND TECH., *Sustainable AGRICULTURE AND THE 1995 FARM BILL* 14 (1995).

127. Jan Lewandowski & Kevin Ingram, *Policy Considerations for Increasing Compatibility Between Agriculture and Wildlife*, 39 NAT. RESOURCES J. 229, 245 (1999) (citing Ralph E. Heimlich & Tim Osborn, *Buying More Environmental Protection With Limited Dollars*, in CONFERENCE PROCEEDINGS: WHEN CONSERVATION RESERVE PROGRAM CONTRACTS EXPIRE: THE POLICY OPTIONS 83, 86 (1994)).

128. Batie & Horan, *supra* note 75, at 3.

129. For example, conservation tillage, one of the most effective soil erosion reduction techniques, may require additional applications of fertilizer and herbicide. Carpenter, *supra* note 6, at 225-26.

130. Davidson, *supra* note 123.

information about every farm in the country.¹³¹ This information would allow the NRCS to evaluate the interrelation of practices and environmental harms at a farm level, rather than a county, state or national level, thereby making a system-based approach more effective.

Fifth, the program should restrict expansion into unused land. This would keep farmers from bringing more land into production in order to make up for the potential reductions in yield that would result from heightened environmental requirements. Failure to include expansion restrictions could substantially reduce the benefits of the program. Similarly, there are some areas currently under production where farmland is so fragile that it should be permanently retired, and an expansion of the CRP along these lines is therefore warranted.¹³²

Finally, a mandatory program should include more stringent penalties, such as high fines, for noncompliance. The current sod- and swampbusters programs simply disallow farm program benefits to non-complying producers.¹³³ The problem with making loss-of-benefits the only penalty is that, depending on how benefits are structured, their loss may not outweigh the costs of compliance.¹³⁴ The possible solution of a program that maximized participation by raising benefit levels would at some point become prohibitively expensive to administer. While more substantial penalties for violating environmental requirements will certainly not be popular with farm interests, they will be necessary to make the rest of the system work.

CONCLUSION

The 2002 Farm Bill is neither an overwhelming success nor an abject failure for the goals of sustainable farming and reduced environmental impacts. Rather, it is an incremental step in the direction of sustainable agriculture that demonstrates support in Congress for such goals. However, only by addressing the environmental consequences of the current subsidy program, and by creating a comprehensive and mandatory regulatory system, can the negative environmental impacts of agriculture be reduced to sustainable levels.

131. *Id.*

132. See Ruhl, *supra* note 6, at 341 (“researchers have concluded that restoration of wetlands and riparian zones in the Midwest would significantly reduce the hypoxia effects in the Gulf of Mexico.”).

133. 16 U.S.C.A. §§ 3811(a), 3821(c) (2003).

134. Walker & Young, *supra* note 52, at 205.