# Integrating Commodity and Conservation Programs

## Design Options and Outcomes

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## Abstract

Can a single program support farm income and encourage producers to adopt environmentally sound farming practices? While simple in concept, attempting to roll the farm income support features of existing commodity programs and conservation payments into a single program raises questions. Exactly how would farm commodity and conservation payments be combined? What difference would it make for environmental gain and farm income support? This report approaches the questions in two ways. First, spending patterns in existing commodity and conservation programs are analyzed to determine the extent to which producers who are currently receiving commodity payments also receive conservation payments. Then, a number of hypothetical program scenarios are devised and analyzed to estimate how emphasis on current income support recipients would differ from a combined program that focuses on achieving cost-effective environmental gain. The results show that policymakers face significant tradeoffs between environmental (conservation) objectives and farm income support objectives in designing a program that provides both income support and environmental gain.

**Keywords:** conservation, commodity programs, income support

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# Summary

Conservation and commodity programs have many advocates and beneficiaries. Commodity programs support farm families in an effort to ensure abundant supplies of crop commodities; conservation programs encourage stewardship of natural resources and the environment. Can these two aspects of U.S. agricultural policy be joined together into a single, integrated approach to farm support and conservation? Under this hybrid approach, agricultural producers receiving commodity payments would also work to improve their environmental performance (and vice versa)—an appealing quid pro quo. But there is a catch—an integrated program will be effective in achieving both conservation and commodity program goals only if those producers who receive existing commodity payments also face pressing environmental needs.

## What Is the Issue?

Policymakers may need to compromise commodity program objectives, conservation objectives, or both, in merging conservation and farm commodity payments into an integrated "green payments" program.

This report:

- examines the extent to which participation in existing conservation and commodity programs overlap

- devises a set of hypothetical scenarios covering a wide range of possible green payment program designs

- analyzes likely producer reactions and the resulting environmental and income support outcomes for each of these scenarios.

## What Did the Study Find?

Policymakers may face significant tradeoffs if they attempt to combine farm commodity and conservation payments. Commodity payments are intended to support farm families while ensuring abundant supplies of crop commodities at competitive market prices. These goals are quite distinct in scope and emphasis from those of conservation programs, which are designed to promote environmentally sound farming practices. Many farms that receive existing conservation payments or offer opportunities for cost-effective conservation do not receive payments from existing commodity programs.

In 2004, only a small proportion of U.S. farms (6 percent) received payments from both commodity and conservation programs, partly because conservation programs have been small relative to commodity programs. Because conservation program budgets and payments are increasing, however, the overlap between commodity and conservation payments is likely to increase. Nonetheless, only 43 percent of conservation program payments in 2004 went to farms that also received commodity program payments. This suggests that a significant share of new conservation payments could go to farms that currently do not receive commodity payments.

Conservation and farm commodity payments could be combined in many ways. In devising hypothetical scenarios, we consider variations on two general approaches—environmental compliance and environmental performance. The approaches are selected to help identify and characterize possible tradeoffs between conservation and the farm income support features of existing commodity programs in designing an integrated program, as follows:

**Environmental Compliance.** Policymakers could start with existing commodity programs and make them "greener" by adding environmental compliance requirements. While the new requirements could result in greater conservation effort by commodity payment recipients, producers' additional conservation costs would cut into income support. Moreover, current farm commodity payments reach only about 25 percent of U.S. farms, although those farms control about 80 percent of cropland and 50 percent of all agricultural land. The other 75 percent of farms and ranches, including many with pressing environmental needs, are not eligible for payments because they do not produce program crops.

**Environmental Performance.** On the other hand, policymakers could start from a conservation program perspective, devising a set of conservation payments that could exceed producers' conservation costs and, therefore, support farm income. One way to do that is to offer payments that are commensurate with environmental performance rather than cost. To the extent that payments exceed cost, producers could make a "profit" on producing environmental gains. Because program eligibility would not be confined to farms that receive commodity payments, however, income support and conservation effort would be spread more broadly across the farm sector than for the environmental compliance scenarios. If policymakers decide to offer an integrated green payment program in lieu of existing commodity programs (rather than in addition to these programs), current recipients of commodity payments could realize a loss in net income support.

Empirical analysis shows both similarities—and significant differences—across the hypothetical scenarios. In general, we estimate that:

- **Both environmental compliance and environmental performance scenarios deliver both environmental gain and income support.** While neither approach assumes any specific funding levels for income support or conservation, both can produce substantial income support and environmental gain. Depending on the specific scenario, conservation expenditures account for as much as 50 percent of total payments to producers. The balance of the total payment (total payment less net conservation expenditures) is income support.

- **Environmental gain depends critically on program design.** While both environmental compliance and environmental performance scenarios leverage environmental gain, the environmental performance scenarios realize gains at a lower cost per unit of environmental gain. In other words, environmental performance scenarios are more cost-effective than the environmental compliance scenarios in producing environmental gain. More cost-effective environmental gain means that a given budget can produce more environmental gain, more income support, or both.

- **Policymakers may face a difficult tradeoff between environmental gain and the *distribution* of income support.** Cost-effective environmental gains are achieved largely by encouraging the enrollment of producers who can deliver large environmental gains per dollar of cost. These producers, however, are not necessarily those historically receiving commodity program payments. If policymakers want to continue supporting recipients of existing commodity program payments, they are likely to face a difficult tradeoff between environmental gain and income support.

## How Was the Study Conducted?

Analysis of existing commodity and conservation payments is based on Agricultural Resources Management Survey (ARMS) data for 2004. To analyze the hypothetical program scenarios, the authors developed a model based on the ARMS farm business and household survey for 2002. Data from 2002 are used because it is the most recent year for which grazing land acreage is provided. Additional data on conservation treatment needs (e.g., whether soil erosion, nutrient runoff, etc., are problems) and the potential for environmental gains were also used. Data sources include the National Resources Inventory and the Workload Assessment data, both maintained by USDA's Natural Resources Conservation Service (NRCS). To quantify environmental gain, we used an environmental index, similar to the Environmental Benefits Index used in the U.S. Department of Agriculture's Conservation Reserve Program. Producers were assumed to participate if payments exceed the minimum payment they would accept for undertaking a given treatment or set of treatments. The payment needed to make farmers willing to adopt specific treatments was estimated from NRCS Environmental Quality Incentives Program data.