CARD Briefing Paper 94-BP 3

Agriculture, Conservation, and the Environment: A Unified Policy

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May 1994

CARD

Trade and Agricultural Policy Division
Center for Agricultural and Rural Development
Iowa State University
Ames, Iowa USA
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This material is based upon work supported by the Cooperative State Research Service, U.S. Department of Agriculture, under Agreement No. 92-34149-7136. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture.

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AGRICULTURE, CONSERVATION, AND THE ENVIRONMENT:
A UNIFIED POLICY

As another Farm Bill approaches in 1995, agricultural, conservation, and environmental
groups will again negotiate domestic
agricultural policies. From past meetings have
come such compromise solutions as the
Conservation Reserve Program (CRP) and
conservation compliance. The upcoming Farm
Bill debate could present a rather unique twist.
The Iowa Plan (Iowa Farm Bill Study Team
1994), a proposal to reform federal farm
policy, has the potential for substantial budget
savings (a rarity in today's political society)
over current programs. Thus, if the Iowa
Plan is adopted, negotiations will turn to the
appropriation of the budget savings. This
paper demonstrates how these savings could be
used to benefit agriculture, conservation, and
the environment. Several market-driven
approaches to address agricultural-environmental conflicts are presented. From
these, a proposal is made to promote
agriculture, conservation, and the environment
through "green payments" from agriculture's
budget savings under the Iowa Plan.

Green payments represent compensation
for actions taken to uphold and/or improve the
environmental quality of the land and other
natural resources. Farmers, as stewards of the
land, are active environmentalists, and thus,
deserve recognition for their efforts. Green
payments will serve as just rewards for
environmental service. For conservation and
environmental groups, green payments would
represent agriculture's efforts to provide
incentives for environmentally sound
agriculture. Thus, all groups gain from a
green payments strategy.

Market-Driven Policy Options

Conservation and environmental issues
can be addressed through several market-
driven policies. Hodge (1991) examines
several alternative policy options. Besides
government regulation, the government can
approach environmental issues through taxes
and subsidies, reductions in incentives for
environmental actions in other government
policies, permits and quotas, legal liability,
and environmental contracts.

The tax-subsidy approach to
environmental policy implies that there are
costs and/or benefits that are not properly
incorporated into the market price of a
commodity. If the production of a commodity
leads to some environmental damage
(improvement), then a tax (subsidy) should be
placed upon that good. This approach
attempts to value the environmental impact of
the commodity and compensate for it. Some
problems arise under this strategy; for
example, the environmental impact value is
hard to quantify, proxy variables must often be
used to measure environmental effects, and the
process by which the commodity affects the
environment may not be completely
understood. Many of these problems will also
affect the other policy options proposed to
address environmental impacts that are
incidental to agricultural production.

The government can help conservation
and environmental causes by reducing implied
disincentives for environmental action in its
policies. An example of a policy disincentive
is the current farm program combination of target prices and acreage reduction programs (ARPs). By holding target prices above market prices and requiring the farmer to set aside a given percentage of land while planting the rest to a specified crop, the combined policies create incentives for intensive monoculture. Under the Iowa Plan, both target prices (for deficiency payments) and ARPs are eliminated; thus, the Iowa Plan helps reduce environmental disincentives in agricultural policy by reducing incentives for intensive monoculture and encouraging biodiversity.

A permit-quota system can be set up to address environmental issues. This solution creates markets for environmental rights. The government sets a total level for an activity (quota) that affects the environment and permits are then issued to individual agents allowing them to conduct a specified level of the activity. The distribution of permits can be determined by auction, existing individual activity levels, or other means. To achieve the least-cost environmental impact, the permits should be transferable. The permit-quota system would face the same problems as the tax-subsidy strategy.

Legal liability would make it possible for agents to be liable for any environmental damage caused by their actions. This forces individuals to account for any environmental effects his/her actions might have. As one can imagine, there are many problems with environmental legal liability. Uncertainty abounds about the level of possible damage settlements, the tracing of environmental problems to a specific agent, and the concentration of damages over individuals (often, it would be widely dispersed).

Environmental contracts can also be employed to balance environmental concerns. The contracts specify the land owner's rights and responsibilities to the land and provide guidelines for reimbursement or payments for actions taken to uphold and/or improve the environmental quality of the land and other natural resources. Contracts could be individually negotiated and drawn up for a set time period. They could be targeted to specific environmental problems or to general environmental quality.

Choosing An Environmental Policy Structure

Hodge indicates six areas that must be considered when choosing an appropriate environmental policy structure: flexibility, targeting, information, incentives, transaction costs, and political considerations. The policy should be flexible, to allow agents a variety of options to achieve the specified environmental impacts at the least cost. The policy should be targeted with respect to a particular level of activity or geographic area. Adequate information should be provided to both the policymakers and the contracted agents. Incentives should be set to create the desired atmosphere for change without overcompensation. Transaction costs of the policy should be accounted for, including all government expenses for the program. Also, political considerations must be incorporated into the policy; a balance must be struck between agriculture and the environment.

As was mentioned previously, the Iowa Plan does serve the environment by reducing disincentives for environmental actions in U.S. agricultural policy. However, it has the potential to expand its conservation and environmental efforts while also providing the strongest support to agriculture through an enhanced environmental platform, more specifically through extended environmental contracting and green payments. U.S. agriculture has in some instances adopted environmental contracting; the CRP is a well-known example.
Under the Iowa Plan, the CRP is continued, although in a modified form, and agricultural programs could produce substantial budget savings over the current program structure. These savings would then be directed towards extending a modified CRP and other environmental enhancement programs. Several authors have proposed such an approach to agricultural environmental policy. Cook (1989) puts forth the Environmental Stewardship Program (ESP) as a successor to the CRP. The ESP is a modified CRP that allows for variations in land use, as opposed to a complete change in land use. Cook suggests ESP could consist of 10- to 15-year contracts that compensate farmers to perform some or all of these provisions:

1. Adjust planting on the farm to rotations that reduce erosion and the use of agrichemicals;

2. Modify agrichemical applications to reduce input usage and improve input efficiency;

3. Adopt long-term pest control including biological controls;

4. Modify agricultural practices to favor wildlife;

5. Experiment with alternative, sustainable farming practices; and


Payments would be based upon the farmer’s costs and the production adjustment. These payments increase as farmers make more dramatic adjustments and farmers who are already producing under ESP practices could also be recognized and encouraged to continue through ESP contracts.

Rietveld (1993) has also suggested extending or expanding CRP. He notes that CRP has been a fairly popular program with environmentalists, conservation groups, and agricultural producers. As CRP has evolved, it has shifted to meet broader environmental goals and focused on more geographic targeting. Rietveld proposes this evolution of CRP should continue. Agricultural practices could be targeted to the introduction of filter strips, windbreaks, and terraces. Timely haying and grazing could be allowed as a cost efficient policy option.

Both of these proposals show how environmental contracting can be extended to fit the concerns of all groups. The green payments from such contracts recognize agriculture’s efforts for the environment and provide incentives for even more effort. Programs such as ESP allow the farmer flexibility in terms of production adjustment and required actions. Conservation and environmental goals can be reached in the least-cost manner. ESP presents farmers with a selection of contract choices as opposed to the CRP set-aside. Contracts can be tailored to meet specific needs. Economic use of the land is not prohibited, but is only bounded in environmentally conducive ways. Thus, environmental contracting and green payments support agriculture, conservation, and the environment.

Several studies have shown extension or expansion of CRP would be received favorably by agricultural producers as illustrated in the review presented by Clark (1993). Studies indicate that many producers would continue in an extended CRP; and if limited haying and grazing were allowed, some producers would accept lower rental rates or conservation easements. Thus, there exists evidence that farmers would adopt flexible environmental contracting and green payments to a significant degree with enhancements to production agriculture and to the environment.
Summary and Recommendations

There are several ways to address environmental issues through market-driven mechanisms and incentive programs. Environmental contracting with green payments seems to be a most promising avenue for both agricultural and environmental interests. ESP contracting options could include CRP contracts with limited haying and grazing rights, and contracts for the adoption of buffer strips, terracing, and other best management practices. The Iowa Plan, in conjunction with a program such as ESP, could greatly benefit agriculture, conservation, and the environment at the same or lower costs to the government than the current program structure entails.
REFERENCES


