Agri-Environmental Stewardship Schemes and “Multifunctionality”

Thomas L. Dobbs and Jules N. Pretty

The United Kingdom introduced the first agri-environmental scheme in the European Union in 1986. Since then, the United Kingdom has developed and implemented several other schemes that also feature stewardship payments to improve agriculture’s environmental performance. In this article, lessons learned from the United Kingdom’s agri-environmental programs are identified. Using the concept of “multifunctionality,” which increasingly is influencing agricultural policy in Western Europe, the authors examine key issues associated with potential major expansions of stewardship payment schemes on both sides of the Atlantic.

Agricultural policy makers on both sides of the Atlantic face new choices about farming and the environment. Member states of the European Union (EU) are shaping policies to implement the Agenda 2000 reforms of the Common Agricultural Policy (CAP), and these reforms are strongly influenced by the concept of multifunctionality. The Rural Development Regulation, designed as a second pillar of the CAP, allows EU member states to shift up to 20% of their CAP funds to rural development and agri-environmental programs. This could bring a major expansion of environmental stewardship programs in Europe as EU members redirect funds from commodity support to environmental and rural development objectives. The United Kingdom, for example, shifted 2.5% of all direct payments to farmers under CAP commodity regimes to rural development and agri-environment initiatives in 2001, and plans call for the proportion to rise gradually to 4.5% in 2005 and 2006 (Ministry of Agriculture, Fisheries and Food; Policy Commission on the Future of Farming and Food). The United Kingdom’s Policy Commission on the Future of Farming and Food recently recommended an increase to 10% starting in 2004, and that serious consideration be given to increasing the proportion to the maximum 20% “if substantial CAP reform is not delivered in 2006–07” (Policy Commission on the Future of Farming and Food,

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p. 77). Although the U.S. government enacted new Federal “farm” legislation for the years 2002–2007, which greatly expands programs and funding for conservation (USDA 2002), debates about agricultural and related environmental policies also continue in the United States.

We draw on our recent review of agri-environmental programs in the United Kingdom (Dobbs and Pretty) to examine key issues associated with a major expansion of stewardship payment programs on both sides of the Atlantic. We describe the evolution of agricultural and agri-environmental policies in the United Kingdom and the concept of multifunctionality now driving European dialogue on the next generation of agricultural and environmental policies. Drawing on the United Kingdom experience, we also examine three key issues associated with possible major expansions of stewardship payment programs: (a) the compatibility of production support and stewardship support; (b) balancing stewardship payments and environmental compliance; and (c) the compatibility of World Trade Organization (WTO) rules with stewardship schemes.² We conclude with a discussion of implications of the U.K. experience for U.S. agri-environmental policies.

Evolution of Agricultural and Agri-Environmental Policies in the United Kingdom

The roots of current agricultural policy in the United Kingdom go back to the 1930s. Like the United States, agriculture in the United Kingdom entered a depressed condition following the collapse of farm prices after World War I, and it remained so as the industrial world sunk into depression in the 1930s. Price supports for many agricultural products had been put in place by 1932. As the likelihood of United Kingdom involvement in the European conflict grew in the late 1930s, it was apparent that the United Kingdom could be blockaded and food supplies threatened. Consequently, there was a massive effort to intensify agricultural production. Plans, incentives, and mandates were put in place for farmers to convert pastures to crop production. Although price controls were in effect during the War, support prices were raised to help provide the money needed to intensify production. Farmers who failed sufficiently to comply with the intensification plans mandated for their farms could be, and sometimes were, evicted. The various policies and initiatives began a major transformation of agriculture in the United Kingdom (Potter; Wormell).

The United Kingdom determined that agriculture would not be allowed to collapse again, as it had after World War I. The principal objectives of the 1947 Agriculture Act were to increase food production and combat the chronic balance of payments deficit. In this and subsequent Acts, the United Kingdom government recommitted itself to an intensified and modern agriculture. Policy instruments included plowing grants, price subsidies for crop and livestock products, grants for field drainage and hedgerow removal, and subsidies for fertilizers (Pretty 1998). Similar policies were put in place elsewhere in Europe, and the policies began to take on greater uniformity with initiation of the CAP by the then Common Market in 1958. Much of the United Kingdom’s domestic agricultural support was conditioned by the CAP following entrance into the European Community in 1973. Like U.S. agricultural support policies, the CAP was effective in stimulating
food and fiber production. However, this abundance came at increasingly high budgetary and environmental cost.

In recognition of the mounting problems with modern, intensive agriculture, policy reforms started in Europe in the mid 1980s. The Environmentally Sensitive Areas scheme was the first agri-environmental program in the EU, launched in the United Kingdom in 1986. The next major U.K. agri-environmental program was the Countryside Stewardship Scheme, established in 1991. The 1992 MacSharry CAP reforms began to weaken the links between production and farm income support, and were followed with financial assistance packages to U.K. farmers to convert to organic agriculture or accomplish a variety of environmental outcomes.

**Multifunctionality**

Building on the experiences of the 1980s and 1990s, EU member states are now shaping a new generation of agri-environmental policies based upon the concept of multifunctionality (Organization for Economic Cooperation and Development). Agriculture is inherently multifunctional—it does more than just produce food, fiber, oil, and timber (Food and Agriculture Organization, Whitby). It has many functions or purposes, thereby potentially producing a wide range of outputs or services.

Agriculture that depletes organic matter or erodes soil while producing food externalizes costs that others in society must bear; but one that sequesters carbon in soils through organic matter accumulation contributes to both the global good by mediating climate change and the private good by enhancing soil health (Pretty et al. 2000, 2002). Similarly, a diverse agricultural system that protects and enhances on-farm wildlife for pest and disease control contributes to wider stocks of biodiversity, while simplified modernized systems that eliminate wildlife do not (Costanza et al., Doran and Werner, Pretty et al. 2001, Pretty 2002).

Multifunctionality suggests agriculture can deliver valued nonfood functions that cannot be produced by other economic sectors. Much of the apparently ‘natural’ biodiversity in Europe is the result of centuries of farming, and agriculture has created and shaped the landscape and countryside. There are many other positive side-effects of agriculture, including values derived from aesthetic appreciation; recreation and amenities; water accumulation and supply; nutrient recycling and fixation; wildlife, including agriculturally beneficial organisms; and storm protection and flood control. The idea that agriculture provides these other types of goods and services is not new, of course, and, in itself, is not controversial. The controversies surround how this concept is translated into policies.

Several major challenges face policymakers in restructuring agricultural support based on the multifunctionality perspective. With multifunctionality center-stage in EU agricultural policy discussions, support to farmers increasingly will be tied to stewardship and other social objectives, rather than to food and fiber production. Admittedly, agricultural policies have frequently served several public policy objectives. Figure 1 illustrates how different agricultural policies rest along intersecting continuums. Some policies serve primarily to support food and fiber production objectives, some support primarily stewardship (environmental) objectives, and others support particular social objectives. In addition, some may
support a combination of two or all three of these objectives. The challenge to multifunctionalists that we focus on in this article is how to make the transition from production (top of the triangle in figure 1) to stewardship policies (lower right-hand corner).

In addressing this challenge, consider exactly what kinds of policies tend to be clustered in the different corners of figure 1. Major examples are listed in table 1. Various kinds of grain and oilseed price supports used in the EU and the United States during the last half of the 20th century clearly served primarily to increase food and fiber production. In the United Kingdom, a number of those policies initially were intended to increase production of food commodities, but they also had the social objective of supporting farm incomes. In the United States, price support policies initiated in the 1930s were intended primarily to achieve social objectives of maintaining farm income and a family farm structure of agriculture. However, because the support mechanisms were so closely tied to crop production, these policies are represented by small boxes close to the production support corner of figure 1. In other words, de facto, the policies tended to support an
Table 1. Typology of public policies/schemes according to objective with which they are most closely associated

<table>
<thead>
<tr>
<th>Production Support</th>
<th>Stewardship Support</th>
<th>Social Support</th>
<th>Support for Nonfarm Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price supports</td>
<td>Organic Farming</td>
<td>Fully decoupled income support payments</td>
<td>Support for rural infrastructure</td>
</tr>
<tr>
<td>Livestock headage</td>
<td>Tir Gofal(^a)</td>
<td>Beginning “small-farmer” loans</td>
<td></td>
</tr>
<tr>
<td>payments</td>
<td></td>
<td>“Capping” price or income support by farm size or income</td>
<td>Education in rural areas</td>
</tr>
<tr>
<td>Deficiency</td>
<td>Arable Stewardship</td>
<td>Support for farmers’ markets</td>
<td>Rural health care</td>
</tr>
<tr>
<td>payments</td>
<td>Scheme(^a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crop insurance</td>
<td>Norfolk Area Land</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Management Initiative(^a)</td>
<td></td>
<td></td>
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<tr>
<td>Income insurance</td>
<td>Countryside Stewardship Scheme(^a)</td>
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<tr>
<td></td>
<td>Environmentally Sensitive Areas Scheme(^a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area payments</td>
<td>Countryside Premium Scheme(^a)</td>
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<td></td>
<td>Integrated farming schemes(^a)</td>
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<td></td>
<td>Nitrate Sensitive Area Scheme(^a)</td>
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<td></td>
<td>Conservation Compliance</td>
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\(^a\)U.K. schemes.

The objective that increasingly was not a priority in industrialized societies in the late 20th century.

Livestock headage payments in the EU also have been explicitly tied to levels of production. The U.S. deficiency payment policy of the 1980s and early 1990s, based on the differences between target and market prices of various commodities, had the social objective of supporting farmers’ incomes but was still closely tied to production. Therefore, we consider that policy also to have been more closely tied to the partially outmoded production objective than to the actually intended social objective of increasing farmers’ incomes. U.S. crop insurance schemes in the 1980s and 1990s, and income insurance schemes piloted in the late 1990s, represent some movement along the continuum from production support toward social support. However, unless very carefully designed, they risk being tied primarily to levels of production of particular commodities. The EU’s area payments, under the Arable Area Payments Scheme, are less tied to production than have been its price support policies. However, they still tend to be closer to the production end of the triangle in figure 1 than to social or stewardship support.
We have examined a range of U.K. policies of the 1980s and 1990s that are closer to the stewardship support corner of the triangle (figure 1 and table 1). The Organic Farming Scheme and its predecessor, the Organic Aid Scheme, were clearly tied to particular stewardship farming systems, as were other schemes in the United Kingdom, including Tir Gofal in Wales. As we read down the stewardship support column in table 1, some policies listed also have social or production elements. Conservation compliance, as incorporated in farm policy in the United States since the mid 1980s, is designed to support stewardship objectives. Commodity program benefits are conditioned on environmental performance on highly erodible cropland (Heimlich and Claassen). Most farmers have come into compliance by altering particular production practices, rather than by substantially altering their farming systems. Therefore, we might think of the conservation compliance policy as being somewhere on the continuum between production and stewardship (figure 1).

Trans-Atlantic policy dialogue about multifunctionality is hindered by the often-differing European and North American values with respect to agricultural landscape and habitat. Europeans value the managed landscape that has evolved over the centuries, whereas many North Americans place high value on ‘wild,’ nonagricultural settings. There are also differences in the values put on the types of animal and plant biodiversity. Birds for hunting are highly valued in the United States, for example, whereas a wide variety of farmland bird species are valued for viewing in the United Kingdom. The basic concept of multifunctionality is the same on both sides of the Atlantic, although it manifests itself differently. Appreciation of ‘traditional’ farm and ranch landscapes, especially those near urban areas, is likely to grow in the United States (Hellerstein et al.).

Support for rural development that is more broadly based than on-farm activities alone is an important element in the emerging EU multifunctionality debate. These “nonfarm” rural development activities are represented by the space outside the triangle but within the circle in figure 1. A few broad examples of such activities are listed in the last column of table 1. The first example consists of government support for communications, waste treatment, and other kinds of physical infrastructure that make living and operating nonfarm businesses in rural areas attractive and affordable. Nonfarm businesses include ones related to agriculture, such as food processing operations. The other two examples listed consist of support for human and social capital related to education and health care in rural areas.

The focus on multifunctionality, or multiple objectives related to agriculture, is not an attempt to refute the economic notion that some policy tools may be more efficient than others in achieving different objectives or goals (Claassen et al.). On the contrary, a multifunctionality approach calls for policy to be much more explicit about what we want from agriculture than has usually been the case. By so doing, analysts can more clearly identify policy tools and scenarios likely to result in either complementarity or competitiveness between agriculture’s different functions.

Rather than examine the entire range of relevant policy tools, we focus in this article on positive incentive policies in the form of “stewardship payments.” This type of policy tool is intended primarily to enhance agriculture’s performance.
with respect to positive environmental functions, but it also can have intended or unintended effects on production and social functions. Other potential policy tools designed primarily for environmental functions, such as environmental taxes and regulations, have been extensively analyzed elsewhere (e.g., Pretty et al. 2001; Ribaudo, Horan, and Smith).

**Issues Emerging from the U.K. Experience**

Several issues emerge from examining the U.K. experience, and its growing emphasis on multifunctionality, that have bearing on proposals and plans to substantially expand stewardship payment programs in Europe and the United States.

**Compatibility of Production Support and Stewardship Support**

Much remains to be done to completely decouple income support for farmers from production. Although there have been significant first steps in decoupling under the EU’s CAP, strong incentives remain for farmers in the United Kingdom’s main arable areas to continue farming intensively. U.K. agri-environmental schemes often have not been financially attractive to highly productive, intensive arable farms (Potter, Baldock and Mitchell). Cobb et al. indicate that organic farming systems have tended to be disadvantaged relative to conventional systems in the United Kingdom because the clover/grass leys that are typical in organic rotations did not qualify for CAP arable area payments. If the ley was grazed or put up for hay or silage, it did not qualify as set-aside. Bailey et al. also found that eliminating or decoupling government support payments and eliminating set-aside requirements would enhance the profitability of “integrated” crop systems relative to “conventional” systems in the United Kingdom. Farmers in the United Kingdom’s arable regions still benefit too much from production-related CAP supports to take up the higher tiers of agri-environmental schemes, and to diversify with crop rotations.

Well-intended calls for stronger safety nets in the United Kingdom tend to venture onto a slippery slope toward the area of production support. In an otherwise generally excellent discussion of policy options for U.K. agriculture, a report of the Royal Agricultural Society of England (RASE) justified the need for a stronger safety net, but it was vague about how such a system would be constituted. The report stated, “any safety net should set a floor or minimum price, but is by definition coupled to production” (Royal Agricultural Society of England, p. 17). Authors of the RASE report suggested the possibility of using crop and revenue insurance schemes like those being tried in the United States, to strengthen the safety net for U.K. farmers as conventional CAP price supports are phased out. However, these schemes can inadvertently encourage overly specialized production systems if coverage is too narrow or premium subsidies are too high for particular crop or livestock enterprises. Subsidized crop insurance tends to result in expansion of cropland area (Wu). Cautions about the potential distorting effects of government-backed insurance schemes are noted in the USDA’s policy statement, *Food and Agricultural Policy: Taking Stock for the New Century* (USDA 2001).

Potter and Goodwin stress that merely abandoning production supports is unlikely to accomplish the range of stewardship objectives desired in Europe. It could, indeed, lead to less intensive production (at least after a time), thereby
reducing negative externalities related to inorganic fertilizer and pesticide use. However, the overall effects on the range of features that Europeans desire in their managed agricultural landscapes are less clear. Most of the beauty and biodiversity of landscapes in the United Kingdom and elsewhere in continental Europe depend on the continuation of active farming. It is restoration or maintenance of a certain kind of farming that is desired in Europe. Liberalization of farm policy, by itself, could “wipe out much of the human capital necessary for the effective conservation of the European countryside” (Potter and Goodwin, p. 291). Stated another way, decoupling of subsidy payments from specific crop and livestock commodities is a necessary, but not sufficient, condition for achieving landscape-based environmental objectives. Stewardship programs are required to counterbalance some of the economically depressing effects that more market-oriented farm policies could have on European agriculture.

**Balancing Stewardship Payments and Environmental Compliance**

A critical issue facing policy makers is how to specify which environmental standards should be required without directly compensating farmers and which they should be compensated for achieving. A threefold categorization is useful in thinking about this issue (Dwyer, Baldock, and Einschutz). The base category consists of farming practices covered by regulations, such as restrictions on pesticide applications near waterways or on nutrient applications in the United Kingdom’s Nitrate Vulnerable Zones (NVZs). The next category consists of good practices that go beyond regulatory requirements, but for which there are no agri-environmental payment programs. Examples in England include “retaining traditional field boundaries, or maintaining green cover over winter on erodible soils” (Dwyer, Baldock, and Einschutz, p. 32). The third category contains practices providing environmental services covered by incentive-based compensation schemes. Cross-compliance requirements for farmers receiving CAP production support payments could be applied to practices in either of the first two categories.

The debate about which farming practices belong in each category is both philosophical and economic. In essence, this is a debate about whether various agricultural practices that might be carried out for environmental purposes should be viewed as (a) avoidance of negative externalities or (b) production of positive externalities or public goods. What is the baseline, above which agriculture is providing positive environmental externalities and below which agriculture is harming the environment (producing negative externalities)? The answer in any given situation has important implications for public policy. Bromley and Hutchinson stress that this question cannot be answered objectively. The answer is inherently political, being based on public perceptions and political processes specific to time and place that determine property rights and who should provide and pay for particular environmental or social goods from agriculture.

An evolution of thinking on this question is illustrated by U.K. policy regarding nitrate contamination of water by agriculture. For a number of years during the 1990s, the United Kingdom implemented a Nitrate Sensitive Areas (NSAs) scheme that centered on payments to farmers for reducing or eliminating nitrate contamination. This voluntary scheme had similar features to the former Water
Quality Incentive Program (WQIP) and the current Environmental Quality Incentives Program (EQIP) in the United States. Although the NSA scheme seemingly was successful (Lord, Johnson, and Archer), it is being phased out in favor of the NVZ program. The NVZ program is a mandatory action program of measures for controlling nitrate concentration in surface and groundwater in vulnerable areas. Thus, the emphasis has shifted from voluntary to mandatory measures. This implies that nitrate contamination is now viewed as a negative externality, in contrast to the earlier implied view that avoidance of nitrate contamination constitutes provision of a positive externality (clean water).

United Kingdom environmental groups have argued that some environmental conditions should be attached to the CAP support payments farmers receive, i.e., that there should be cross-compliance (Potter and Goodwin, Royal Agricultural Society of England). The U.K. government has been considering new cross-compliance measures (Performance and Innovation Unit; Ministry of Agriculture, Fisheries, and Food; Policy Commission on the Future of Farming and Food).

Environmental cross-compliance in the United Kingdom currently exists in the following:

\( (a) \) The receipt of all headage payments for beef and sheep under the Sheep Annual Premium Scheme (SAPS), Beef Special Premium Scheme (BSPS), Suckler Cow Premium Scheme (SCPS), Extensification Premium and Hill Livestock Compensatory Allowances under the Less Favoured Area (LFA) scheme, is conditional on not causing significant overgrazing of the land used by livestock upon which these payments are claimed.

\( (b) \) The receipt of Arable Area Payments, including set-aside payments, has been made conditional on farmers obeying certain conditions for the management of set-aside land. . . . to protect habitats and species in cropped landscapes. Conditions include the retention of traditional field boundaries adjoining set-aside land, and restrictions on the timing of certain operations on the land, including ploughing and spraying, in order to minimize damage to ground-nesting birds and other species which may breed or feed in set-aside fields (Dwyer, Baldock, and Einschutz, pp. 25–26).

Dwyer, Baldock, and Einschutz recommended that the U.K. government consider several additional cross-compliance measures. One would reinforce key environmental regulations with cross-compliance conditions, such as regulations related to hedgerow and groundwater protection. A second measure would make it a general duty for farmers to observe major codes of good agricultural practice already in place in the United Kingdom. The third measure would require that farmers draw up a specified whole-farm plan. This might consist of a whole-farm conservation plan or report similar to those of the Farming and Wildlife Advisory Group in England and Scotland. The intent, however, at this stage, would not be to require farmers to implement all the plans’ suggested actions. Finally, Dwyer, Baldock, and Einschutz recommended consideration of a cross-compliance measure requiring margins of specified widths around all fields eligible for Arable Area Payments.

As long as CAP support payments remain high, cross-compliance measures effectively serve as regulations for most farms eligible for payments. Therefore, environmental services resulting from cross-compliance are obtained with substantially less government budgetary cost than through expanded stewardship payment programs. However, if and when production-related support payments dramatically decline or disappear in the EU, cross-compliance loses much or all
of its leverage. Therefore, long-range agri-environmental planning must be based on a collective vision of which environmental conditions or outputs should be obtained through regulations and which ones should be purchased from farmers through stewardship payments.

That collective vision will emerge from interpretations and applications of the multifunctionality concept. It is quite possible, and not necessarily inconsistent, to simultaneously move in two different directions. One, exemplified by the current U.K. direction for nitrate externalities, requires farmers to avoid practices that clearly have adverse effects on society. The policy mix in such a polluter-pays approach could include a combination of regulations and taxes on practices and inputs that cause public harm.

The other direction, which has dominated in Europe, is to pay farmers for adopting practices that produce public goods and positive externalities—the so-called provider-gets principle. With this perspective, producing wildlife habitats or scenic vistas is considered to be producing a good, rather than avoiding a bad. The multifunctionality concept provides a rationale for public compensation, rather than regulation, at least some of the time. Whether a particular agricultural practice or system is viewed as producing a good or preventing a bad is clearly a matter of perspective. In the real world of policy, we are likely to see public support for paying farmers to do some things that are good for the environment, while public sentiment insists on uncompensated regulations to prevent certain practices or systems considered bad for the environment (e.g., see Policy Commission on the Future of Farming and Food).

Compatibility of World Trade Organization Rules with Stewardship Schemes

As European governments shift more of their agricultural support to agri-environmental schemes, increasingly complicated issues of compatibility with WTO rules are emerging. Some in the U.S. agricultural industry, for example, have felt that multifunctionality may be merely a protectionist ploy to continue EU subsidies under the guise of environmental protection. European economists, however, have begun systematically to examine the conditions under which stewardship payments—configured within a multifunctionality framework—may be consistent with economic efficiency criteria and what this may imply for world trade rules.

The Uruguay Round “Agreement on Agricultural Trade” set out a series of decoupled payments that are considered compatible with WTO rules. This zone of compatibility is the so-called “Green Box.” Payments for environmental programs are among those that fall in the Green Box (Swinbank). However, it is not entirely clear which policies the WTO will consider to be in the Green Box as Europe advances new policies under the multifunctionality banner. Figure 1 seeks to bring clarity to this issue. An agri-environmental policy that is fully decoupled from production support would be in the lower right-hand corner. Such a policy would advance society’s environmental goals—say, by producing positive externalities or reducing negative ones—without also increasing production. Stewardship payment schemes that provide incentives to restore hedgerows and increase field margins are good examples.
Some other agri-environmental policies are likely to be more controversial with respect to Green Box classification. There is considerable concern in Europe that the movement toward free trade, with farmers having to depend on world market prices, could “lead to environmental decline as farmers abandon unprofitable marginal land” (Latacz-Lohmann and Hodge, p. 43). The European idea of managed countryside is one in which, over some range, the joint production of food and environmental goods is largely complementary, rather than competitive. If agricultural support falls too low, it may no longer be economically viable for farms in some areas to produce either conventional agricultural commodities or the kinds of rural landscape and habitats European societies value (Cahill, Latacz-Lohmann and Hodge, Swinbank). In such a situation, does an agri-environmental scheme designed to maintain multifunctional agriculture, in the Cotswold region of the west of England, for example, fall inside or outside the WTO’s Green Box? A number of agri-environmental schemes in Europe may be like this—toward the stewardship support corner of figure 1, but part way up the continuum running to production support. “New World” trade negotiators tend to favor wilderness landscapes for environmental enhancement, and joint production is generally not an issue with those landscapes; “Old World” (European) negotiators, however, place more value on lived-in, working rural landscapes (Latacz-Lohmann and Hodge).

Ervin and Mullarkey, Cooper, and Skully stress the importance of using policy instruments that minimize trade distorting effects when efforts are made to sustain or enhance agriculture’s positive environmental functions. For example, simply maintaining an area in agricultural production may provide the desired agricultural landscape, while a higher level of crop and livestock production in that landscape may produce no additional environmental amenity (in fact, it may even decrease the amenity value) but it is more trade distorting. In fact, poorly designed agri-environmental programs could inadvertently even bring more land into commodity production (Heimlich and Claassen). Latacz-Lohmann and Hodge suggest a number of ways for determining which kinds of agri-environmental policies legitimately belong in the Green Box. In essence, these suggestions call for policies that focus primarily on stewardship support while limiting, to the extent possible, trade-distorting commodity production and price effects. Payments should be coupled to stewardship and decoupled from production, even though, in practice, stewardship payments will sometimes cause production to be higher than it would be otherwise.

A related issue is how additionality is to be interpreted. A provision of the Uruguay Round Agreement on Agriculture limits agri-environmental payments to the extra costs of complying with government programs (Latacz-Lohmann and Hodge). The U.K. Treasury also has insisted on additionality. Except in the Environmentally Sensitive Areas, simply maintaining habitat is not considered sufficient to qualify for agri-environmental payments. There must be additional public benefits beyond what is already provided by the farmer without payment. This results in troublesome contradictions: farmers who had previously removed hedgerows would be paid to restore them, but those who had maintained hedgerows at their own expense would not qualify for additional payments (Royal Agricultural Society of England). Similar contradictions plague U.S. conservation policy. As Claassen et al. (p. 37) indicate in their analysis of alternative
agri-environmental payment approaches for the United States, if “bad actors” can receive payments for modest environmental improvements while “good actors” are excluded, farmers “will be discouraged from taking any unsubsidized action that improves environmental performance.”

This issue will need to be addressed if agri-environmental policy is going to take center stage. In our view, fairness and consistency require that all farmers are equally eligible for payments for providing particular environmental services, even if they already had been providing the services without compensation. This position does not imply that every environmental service or externality-avoidance merits compensation. It simply means that if one farmer is eligible for compensation to begin providing a service, every other farmer (in like areas and circumstances) already providing the service also would be eligible. Therefore, additionality would be interpreted with respect to normal farming practices, not with respect to particular farms. This approach would involve specification of “reference levels” similar to those described by Claassen et al.:

Reference levels could vary with soil type and topography, geographic region, or all of these factors. While a reference level is not an environmental baseline—it would not be specific to a particular farm or field—it would reflect the cropping patterns and production management or conservation practices generally in place under homogeneous soil and climate conditions. (Claassen et al., p. 35)

For example, if agri-environmental programs provide payments for farmers in designated regions to use organic practices or utilize forage or green manure legume-based crop rotations, all farmers in those regions would be eligible for payments, including those who already had been farming with such systems. If this position is ruled incompatible with additionality interpretations of the WTO or other governing bodies, then those interpretations will need to be rethought. Latacz-Lohmann and Hodge suggest that Green Box criteria need to allow farmers to be paid for providing nonmarket environmental benefits above some reference level. If that principle is accepted, there would seem to be no valid basis for the WTO to distinguish between farmers who were already providing such benefits and those who begin providing the benefits following the initiation of a stewardship payment scheme.

An agri-environmental policy that qualifies farmers for payments who already are carrying out eligible practices or meeting established environmental criteria does not necessarily make life easy for policy makers and agri-environmental agencies. First, of course, are the budgetary implications. Making everyone eligible would be expected to add to the short run expense of providing a particular set of public environmental services. However, in the long run, government costs might not be greater, because farmers would come to see that bad environmental behavior is not rewarded or, conversely, good environmental behavior is not penalized.

Second, establishing what is normal and what are like circumstances is not easy, in practice. Normal rotations for one set of farms in a local area, for example, may vary from what is normal for other farms in the same vicinity because of subtle differences in biophysical circumstances. There are substantial administrative costs in taking all of these circumstances into account to establish and implement agri-environmental program eligibility criteria. Using eligibility criteria derived
from comparisons of what is additional relative to normal farming practices is feasible, but not without difficulty.

Agri-environmental issues are on the agenda for the new round of WTO negotiations that was approved in Doha, Qatar in November 2001. Even under current WTO rules, policies to support environmental objectives in agriculture are allowed if they are only "minimally trade distorting" (Normile, p. 80). How much is minimal is likely to be contested.

Implications for U.S. Policies

In spite of some differences in perspective, "the European Union and the United States are coming closer together in the policy issues that they will have to address" (Blandford, p. 17). Further, substantial policy reforms are required on both sides of the Atlantic to accomplish shared goals. This means that European and North American policymakers must be willing to learn from the past and from one another as they develop new directions for agri-environmental policy.

There was much discussion and debate about the scope and form of conservation and agri-environmental programs in the process of developing the latest U.S. "farm bill," the Farm Security and Rural Investment Act of 2002. This Act authorizes a 10-year expenditure plan for the U.S. agricultural sector that calls for an 80% increase in spending on conservation and environmental programs (compared with a baseline projection under previous programs and policies) (USDA 2002). However, production-related price and income supports also have been continued and expanded, with expenditure increases over 10 years expected to be nearly four times the amount of conservation expenditure increases.7

It seems evident from experiences on both sides of the Atlantic that for agri-environmental policies to be fully effective, the decoupling of income supports from production must be completed. Such a decoupling clearly did not come about in the United States’s 2002 farm bill. If anything, there was some recoupling, in that a new system of counter-cyclical payments tied to target prices and updated base acres and crop yields was established (USDA 2002). This support mechanism is very similar to the old target price/deficiency payment mechanism done away with in the 1996 farm bill.

Even under the 1996 farm bill—with its planting flexibility provisions, as well as conservation compliance provisions going back to the 1985 farm bill—Corn Belt farmers remained too tied to production-related supports to diversify out of the narrow and inherently chemical-intensive corn-soybean rotation. Between 1996 and 2000, soybean acreage increased in several Corn Belt States, while corn acreage stayed about the same or decreased slightly (Commission on 21st Century Production Agriculture). Some land shifted from continuous corn production to the corn-soybean rotation, but there was little shift to more diverse rotations incorporating forage or green manure legumes.8 Although many Corn Belt farmers have adopted “best management practices” intended to reduce environmental damages, they had little impact on inorganic fertilizer and pesticide loadings (Caswell et al.). Since the structure of agriculture has evolved over the last several decades toward larger farms and fewer market outlets for forages and other products of diverse crop rotations (Dobbs and Dumke, Dumke and Dobbs), decoupling alone may be insufficient to bring about much increase in diversity and
reduction in chemical intensity—unless, perhaps, one is thinking in decades, instead of years. This is true in both England’s East Anglia and the American Corn Belt. The continuation of major production-related supports under both the EU CAP and U.S. farm bills makes it much more expensive and difficult for agri-environmental programs to be effective.

At the same time, it must be recognized that dramatic reductions in, or actual elimination of, price or income supports in the United States could result in the sacrifice of some environmental gains achieved as a result of conservation compliance if there is not sufficient expansion of regulations or stewardship payments (or both). The evolution of U.K. agri-environmental policies toward nitrate contamination illustrates the kind of decisions that will need to be made if there is less U.S. reliance on conservation compliance in the future. As described previously in this article, that evolution implied a more clear delineation of which kinds of agricultural externalities will, for policy purposes, be considered subject to the polluter-pays principle (in this U.K. case, nitrate contamination) and which ones will be subject to the provider-gets principle. If conservation compliance were to lose its leverage in fostering the kinds of basic soil conservation and wetland protection called for in U.S. farm bills since 1985, it would be necessary to decide if the former compliance levels really are baselines, subject to uncompensated regulations, or if they are to be maintained by expanded stewardship payment programs.

The most significant expansion in stewardship payment program funding in the 2002 U.S. farm bill is for the EQIP, but the most significant new program form is the Conservation Security Program (CSP). This program has features similar to some of those that have existed in U.K. agri-environmental programs, with different payment ‘tiers’ based on the nature and scope of environmental practice or system changes. Unlike the Conservation Reserve Program, which takes land out of conventional crop and livestock production in order to focus exclusively on environmental goods, the CSP is designed for working lands. The CSP constitutes an attempt to foster multifunctionality by leaving land in crop and livestock production and providing stewardship payments for the use of practices and systems intended to reduce negative environmental externalities or, conversely, increase positive ones.

Tier I of the CSP, the lowest tier in terms of conservation requirements and payment rates, focuses primarily on individual practices. Tier II, with payment rates higher than those for Tier I, requires enrolled farmers to deal with “at least one significant resource of concern for the entire agricultural operation” (Conservation Security Program, pp. 6–7). The highest payment rates are for Tier III, which requires application of a “resource management system that meets the appropriate nondegradation standard for all resources of concern of the entire agricultural operation” (Conservation Security Program, p. 7). Based on the U.K. experience with tiered agri-environmental schemes, one of the major challenges to U.S. policymakers will be to induce farmers in the more productive agricultural areas into the higher tiers, especially, in this case, Tier III. Given the continuation of high price and income supports tied directly or indirectly to narrow, intensive crop systems, it is likely to prove either difficult or very expensive to induce participation in whole-farm resource management plans that actually involve very much change in farmers’ systems. Changes involving resource conserving crop rotations
(listed among the CSP’s eligible conservation practices) could prove especially
difficult to induce.

Although the whole-farm orientation of the CSP’s Tier II and (especially) Tier
III represents an European-like broadening of U.S. agri-environmental policy, the
legislative language implies a more narrow multifunctionality orientation than
some of the latest European agri-environmental schemes (Conservation Security
Program). The CSP could be used to foster bird habitat and biological diversity, as
in U.K. agri-environmental schemes; eligible practices include fish and wildlife
habitat conservation, restoration, and management. However, rural landscape
priorities, which have been central to major U.K. agri-environmental schemes,
are not particularly evident in other types of conservation practices (nutrient
management, integrated pest management, water conservation and water qual-
ity management, energy conservation measures, contour farming, etc.) listed as
appropriate for CSP contracts. Moreover, the legislative language does not sug-
gest much emphasis on promoting regional social and economic objectives, as
do recently introduced European schemes like England’s Land Management Ini-
tiatives (Countryside Agency) and France’s Contrat Territoriale d’Exploitation
(CTE, or Territorial Contract of Farming) (Dwyer 1999, 2000). Such an empha-
sis does not seem precluded, though, as enhanced CSP payments are allowed
if participating farmers “address local conservation priorities” or participate in
“a watershed or regional resource conservation plan that involves at least 75%
of producers in a targeted area” (Conservation Security Program, p. 10). If the
CSP were to evolve in the direction of a much broader multifunctionality, it
would be valuable for U.S. policy analysts to monitor lessons learned during
implementation of relatively new schemes like the Norfolk Area Land Manage-
ment Initiative, which combines regional and whole-farm planning in the east of
England.

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Endnotes

1These percentages are shifts of funds from traditional production-type CAP supports to ru-
ral development and agri-environmental programs, and do not represent the total percentage of
the agricultural budget devoted to rural development and agri-environmental programs. At the
present time, the second CAP pillar—covering rural development and agri-environmental measures—
commands only around 10% of the overall EU CAP budget (Baldock and Bennett).
2See Dobbs and Pretty for a more complete discussion of issues associated with the U.K. experi-
ence, including: opportunities for programs to contribute jointly to social and stewardship objectives;
capitalization of scheme benefits into land values; and how to gain from bottom-up planning and
subsidarity.
3See Dobbs for a distinction between changes in farming practices and changes in farming systems.
4Bromley refers to these as amenities and habitat.
5Based on perceived benefits to the environment, organic agriculture has been aggressively pro-
moted under the United Kingdom’s Organic Farming Scheme. Preliminary case study evidence re-
ported by O’Riordan and Cobb supports the existence of at least some of those perceived benefits,
relative to “conventional” agriculture.
This does not imply that farmers in all regions of a country would necessarily qualify for given environmental practices or performance. For example, farmers utilizing a particular agricultural practice or system might qualify for incentive payments in a watershed threatened by soil erosion, but not qualify in another watershed or region of the same country if it is not so threatened. That is a separate issue of “spatial targeting” (Claassen et al.).

Preliminary estimates by the Food and Agricultural Policy Research Institute (FAPRI) indicated that net outlays on commodity programs could increase by $49.7 billion over 10 years (compared with a baseline with previous farm bill provisions), and the projected increase was $13.2 billion for conservation programs (United States Senate Committee on Agriculture, Nutrition & Forestry).

It has long been known that cropping systems that include regular rotation of forage and green manure legumes contribute greatly to the creation of the soil’s natural capital (Balfour; Daily; Doran and Werner; Peterson, Drinkwater, and Wagoner; Power; Pretty, 1998, 2002).

References


