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Payments for Environmental Services from Agriculture: Experience in the United Kingdom

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Payments for Environmental Services from Agriculture: Experience in the United Kingdom

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Agriculture's "multifunctionality" was discussed in two *Commentator* issues in 2004 (No. 454 and No. 456). In addition to food and fiber, agriculture can be a source of both positive ("good") and negative ("bad") externalities and public goods. Examples of potential positive externalities and public goods from agriculture include: scenic landscapes, clean water, ecological biodiversity, wildlife, flood protection, and carbon sequestration. Public policy alternatives for encouraging the positives and discouraging the negatives were explained in those two previous *Commentators*. Among the alternatives discussed was support for environmentally friendly farming practices. A subset of this alternative that is gaining increased attention is "payments for environmental services" (PES). In this *Commentator*, I explain what is meant by PES and discuss some considerations in developing PES policies. Then I describe the history of two major PES schemes[1] in the United Kingdom (UK). I also describe the latest developments in PES policy in England's portion of the UK.

Developments in agri-environmental policy in Europe have important implications for the on-going development of related policies in the US (Dobbs and Pretty, 2004). It is critical that "lessons" be exchanged across the Atlantic. As the US moves into new programs like the Conservation Security Program that recognize (at least implicitly) agriculture's multifunctionality, we can draw on experiences about what worked and what did not work with European PES schemes. Moreover, the European Union (EU) and the US are watching each other's PES schemes closely—as are other countries watching those of both the EU and the US—in the context of World Trade Organization negotiations about the acceptability of different kinds of payments to farmers.

Considerations in developing PES policies

Payments for environmental services represent attempts to have the beneficiaries of positive externalities and public goods from agriculture provide compensation to the agricultural providers, to assure such provisions will be initiated or continue. This past June, I participated in a workshop in Germany titled "Payments for Environmental Services (PES)—Methods and Design in Developing and Developed Countries" that was organized by the University of Bonn's Center for Development Research and the Center for International Forestry Research (CIFOR); the latter is headquartered in Indonesia. The workshop included presentations of case studies of PES schemes from agriculture—including forestry—from around the world. Among the case studies were ones from Australia, Germany, Mexico, Costa Rica, China, South Africa, the United States, and the UK (this one prepared by myself and Jules Pretty, of the University of Essex, in England).

CIFOR's Sven Wunder, in two papers in the references, has very clearly explained key considerations in determining the conditions under which PES schemes might be effective, as well as the most appropriate forms for such schemes under

[1] The term "scheme" is used here as do European policy makers, where the term is interchangeable with "program".

different conditions. I draw on these two papers in the remainder of this section.

Wunder defines a PES scheme as one in which there is "a voluntary, conditional transaction with at least one seller, one buyer, and a well-defined environmental service." "Conditionality" means that payments are only made—or continued—if the environmental service is actually delivered. Often the service itself can not be measured directly. Rather, practices are monitored which are thought (based on research or other evidence) to provide the service being paid for. Buyers are usually represented by some collective entity, such as a water utility if the service being purchased is clean water from farmers or foresters in a watershed. Sometimes non-government organizations (NGOs) serve as intermediaries between buyers and sellers. The most common purchasing entities thus far, however, have been government agencies, representing broad public interests or service users. Government agencies were the buyers in the UK cases described in the next section.

PES schemes work best where the farming or forestry practices required to provide the desired environmental services are "marginally more profitable" than the land use which does not provide the services. If existing farming or forestry practices are far more profitable, a PES scheme may be prohibitively expensive. If existing practices are less profitable than the proposed new practices, PES may not be necessary. In that case, education about the practices that will simultaneously provide more private profit than formerly and provide the environmental service may be sufficient to induce adoption of the new practices. However, risk and other constraints also may stand in the way of adoption, in which case other measures instead of, or in addition to, PES may be needed.

PES schemes in the United Kingdom

England, Scotland, Wales, and Northern Ireland have had several major PES schemes in the UK since the 1980s. One of the first such schemes in all of the EU was the UK's Environmentally Sensitive Areas (ESA) scheme. After the ESA was launched in 1986, it grew to cover 22 designated areas in England and 10 in Scotland. Eventually, there were 43 ESA designated areas in the UK as a whole. ESAs covered specified areas of designated high landscape or ecological value. These ESAs encompassed about 14 percent of the total agricultural land in the UK. Under the ESA system, farmers entered up to 10-year voluntary management agreements in return for annual payments. Annual payments to farmers under the England ESA schemes had grown to £53 million ($93 million) by fiscal year 2003. There were over 12,445 ESA agreements in England by then, covering over 600,000 hectares—around 60 percent of the eligible area. Enrolled area represented approximately 6 percent of England's agricultural land.

The Countryside Stewardship Scheme (CSS) was established in 1991, and has been available only in England for land outside ESAs. It aims to protect and enhance valued landscapes and habitats, and improve the public enjoyment of the country-side. The scheme targets chalk grasslands, waterside landscapes, lowland heaths, coastal lands, uplands and historic landscapes, and orchards and meadows. Again, farmers receive payments for entering management agreements, usually 10 years in length. There were more than 16,000 CSA agreements in England by fiscal year 2003, covering more than a half million hectares of land. Annual payments had reached £52 million ($92 million), nearly the same as ESA payments. Roughly 11 percent of England's agricultural land was covered by either ESA or CSS agreements by 2003.

The UK case study paper (by myself and Jules Pretty) in the references contains a detailed review of the ESA and CSS experiences. Although the ESA scheme and the CSS had somewhat different purposes and design, their overall effects in the UK were similar. The payments for environmental services offered under these schemes were generally attractive to farmers in the more 'marginal' agricultural areas; the payments tended to raise and stabilize overall farm incomes for farmers in hill areas and lower-yielding arable areas. The planning and technical assistance offered supported the achievement of stewardship goals. However, in the more productive arable areas, it was difficult for the stewardship payments offered under the ESA scheme and the CSS to compete with the income support and risk-reducing policies of the EU's

Common Agricultural Policy (CAP). Just as in the US Midwest, it is difficult to draw farmers away from systems that involve only a few crops, relatively routine operations, and substantial government payments. The fossil fuel and agrochemical-based technologies and large-scale agricultural structure that have evolved over the last 50 years also inhibit a return to more diverse and management-intensive farming systems. There also is too little social capital to adequately support movement to more complex, integrated farming systems. However, necessary networks, marketing institutions, and support groups are beginning to take shape.

Recent policy developments in England

Agri-environmental policy in the UK, as throughout the EU, is being influenced by the CAP reforms of 2003. These reforms have moved Pillar I (production) supports to a much more "decoupled" basis. Starting in 2005, most Pillar I subsidies are being moved to a new single payment, though member states have some latitude to only partially decouple—allowing some subsidies to continue being paid on a headage or hectareage basis. The new single farm payments are being determined largely on historical payment bases. Although EU farmers are gaining more flexibility to respond to market signals under this more decoupled payment approach, they will be subject to more comprehensive environmental cross-compliance provisions than in the past. The application deadline for farmers in England to establish eligibility for these single farm payments in 2005 and in the future was mid-May of this year.

The greater decoupling under Pillar I should help mitigate some of the disincentives for farmers to enroll in the higher tiers of PES programs. Overall, one would expect UK agricultural production to become more extensive, with lower applications of chemical inputs, and some reductions in overall levels of commodity production. However, as always, adjustments will involve a complex set of interactions, and impacts on the crops sectors could turn out to be more modest than some expect, and some impacts on the environment could actually turn out to be negative. For example, decoupling could lead to greater specialization in the cereals sector, leading to even less biodiversity. Nevertheless, my view is that greater decoupling offers real opportunities for PES and other agri-environmental programs to contribute more effectively to environmental enhancement and sustainability.

Concurrent with the consolidation of payments under Pillar I of the CAP, major changes are being made in England's PES schemes under Pillar II (rural development and environmental objectives).[2] The 2003 mid-term review of the CAP has been implemented in England with the establishment of three new PES schemes as of March 2005—Entry Level Stewardship, Organic Entry Level Stewardship, and Higher Level Stewardship. With the introduction of these schemes, the CSS and the ESA scheme—for the past 15-20 years the core programs, along with support for organic agriculture, of agri-environmental policy in England—have been closed to new applicants.

The aim of the Entry Level Stewardship (ELS) scheme, which is open to all who farm their land 'conventionally', is to encourage farmers to deliver simple environmental management in addition to cross-compliance requirements. This management focuses on improved water quality, reduced soil erosion, improved conditions for farm wildlife, maintenance and enhancement of landscape character, and protection of historic features. Farmers have to complete a plan of the farm showing the main environmental features, called the Farm Environmental Record (FER), and select options from a menu of measures that are rated with points. At least 30 points per hectare are required over the whole farm to qualify for the £30 per hectare ($21 per acre) payments. The application is for a 5-year term.

There remain complex relationships with the CSS and ESAs. Where a CSS measure covers a whole field, it has to be excluded from the ELS. Land in ESAs is excluded from the ELS, and land cannot count towards the ELS if it is part of an English Nature management agreement.

[2] Under the devolution of powers that has been underway for some time in the UK, agri-environmental policies (as with various other policies) often differ among the governmental units of England, Scotland, Wales, and Northern Ireland. Here, reference is only to England.

The compulsory construction of a FER includes nine elements: field boundaries, trees and woodland protection, historic landscape features, buffer strips, arable land wild bird measures, encouragement of a range of crop types, soil protection, lowland grassland management, and nutrient management plans.

The Organic Entry Level Stewardship (OELS) scheme is similar to the ELS, though the applicants must have at least part of their land registered with an organic inspection body as organic or in conversion before application. The objectives and basic measures under the ELS apply equally to the OELS, with only the detailed management guidance and points awarded that differ.

The Higher Level Stewardship (HLS) scheme has been designed to be the most demanding scheme. Applicants must have entered one of the ELS schemes, and so all the basic requirements of those apply. The HLS is for 10 years, though occasionally it could be extended to 20 years. The aims are wildlife conservation, maintenance and enhancement of landscape quality and character, natural resource protection, historic environment protection, and promotion of public access to and understanding of the countryside. Unlike the entry level schemes, the HLS is competitive and is judged on environmental benefit per unit of expenditure. The HLS is closely tied to targets set in each of the 150 Joint Character Areas of England.

The new combination of PES schemes in England appears to offer good prospects for further enhancing agriculture's multifunctionalilty in a coordinated way that builds on experiences gained with the CSS, the ESA scheme, and other PES schemes.

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