

## CHAPTER 8. EVALUATING AGRI-ENVIRONMENT SCHEMES IN ENGLAND

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### Abstract

*This paper starts with a short summary of the development of agri-environment schemes<sup>2</sup> in England and then describes a two-year review intended to evaluate the existing schemes and to design a replacement for them. Evaluation of the existing schemes was carried out using a combination of data from scheme monitoring, externally commissioned reviews, other published and unpublished surveys and a major public consultation exercise. The design of the new scheme, Environmental Stewardship, built on the results of this review and was itself subject to two rounds of public consultation intended to ensure that the design was robust and widely supported. The design provides for a two-tier scheme, the Entry Level of which is intended to be a simple scheme, open to all farmers and offering a fixed payment per hectare in return for a package of management measures chosen by the farmer from a standard menu of options. Because this type of scheme is new to England, a live pilot was run to evaluate the design. Success criteria were agreed in advance covering uptake, farmer reactions, and likely environmental outcomes. The performance of the pilot against these criteria was carefully monitored during the first six months of the pilot. It was concluded that the pilot had met all its success criteria. The design of Environmental Stewardship is now complete and has been approved by the European Commission (EC). The design of the scheme incorporates features intended to make it easier to measure environmental outcomes in future and these are briefly described, along with the overall strategy for evaluating the performance of the scheme. It is stressed that in future it will be important to shorten the cycle time between monitoring, evaluation and changes to schemes.*

### Background

England has been using agri-environment schemes for some time. A state-aided pilot project, The Broadland Grazing Marshes Conservation Scheme, was launched in 1985 to help counter the impact of agricultural intensification on the landscape and wildlife of an extensive area of wetland in eastern England, known as the Norfolk Broads. This proved extremely popular with farmers, and defused a long-running conflict over the future of this area (George, 1992).

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1. The author was with the Conservation Management Division, Department for Environment, Food and Rural Affairs (DEFRA) when he prepared this paper for the Workshop: he is now employed by English Nature.
  2. The phrase “agri-environmental schemes” in this paper refers specifically to payments provided to farmers for undertaking certain specified activities beneficial to the environment.

The experience gained through the Broadland Grazing Marshes Conservation Scheme (BGMCS) was influential in the design of the Environmentally Sensitive Areas (ESA) Scheme. The first five ESAs began operating in 1987, and there are now 22 such areas in England, covering about 10% of the country.

During the late 1980s, it was also recognised that there was a need for an agri-environment scheme capable of operating outside the defined areas of the ESA. This led to the introduction of the Countryside Stewardship Scheme (CSS) in 1991.

The importance of monitoring and evaluation was recognised right from the start. The Broadland Grazing Marshes Conservation Scheme was subject to a full-scale economic evaluation (Colman, *et al.*, 1988). The Agriculture Act 1986, which provided the legislative backing for ESA, states that "... the Minister shall arrange for the effect on the area as a whole of the performance of the agreements to be kept under review and shall from time to time publish such information as he considers appropriate about those effects".

An extensive programme of biological monitoring was set in place to monitor the outcomes of the management being undertaken under ESA agreements. The largest component of this programme was a series of botanical monitoring projects, which involved the repeated survey of vegetation within fixed plots or quadrants of various sizes. Each ESA also has a defined series of performance indicators against which success can be measured.

Countryside Stewardship has until recently had rather less detailed field monitoring, but has been subject to a wide-ranging economic evaluation and a number of targeted monitoring studies looking at the effectiveness of the scheme at achieving particular tasks.

Three other smaller agri-environment schemes have been used within England: the Organic Farming Scheme (OFS), the Habitats Scheme and Arable Stewardship. The Habitats Scheme and Arable Stewardship were subject to extensive biological monitoring programmes.

When the first England Rural Development Plan (RDP) was assembled in 2000, there was insufficient time to properly review the accumulated evidence on scheme performance and re-design the schemes accordingly. Instead, the two main agri-environment schemes, CSS and ESA were incorporated within the ERDP substantially unchanged. This was in contrast to other countries within the United Kingdom, which took the opportunity to redesign their schemes. It was acknowledged at the time that this was not ideal, and a Ministerial commitment was given to review the existing schemes during the course of the RDP. The need for the review was given added urgency by the recommendations of the Policy Commission on the Future of Farming and Food (Curry, 2002), which advocated a major expansion of the agri-environment programme in England, with the introduction of a new "broad and shallow" entry level scheme. This paper describes that review process and its outcome.

## **Outline of the review process**

The review process consisted of the following main phases:

- Consolidation of the evidence base through externally commissioned reviews, one of the environmental evidence and one of socio-economic aspects.
- An initial public consultation, in March 2002, asking a series of open questions about the existing schemes and about what people wanted to see from schemes in the future.

- A second public consultation, in December 2002. This presented the evidence collected from the externally commissioned reviews, some complementary internal reviews of available information and the results of the first public consultation in a “Framework Document”. This document outlined the proposals for the new generation of agri-environment schemes.
- A large-scale pilot, launched in February 2003 and evaluated by October 2003, to test the concept and design of a “broad and shallow”, entry level scheme.
- A third consultation, in October 2003, presenting the complete design and asking for comment on the detailed content of the scheme, particularly the objectives and management options.

The review took rather more than two years, and was completed in March 2004. Since then work has continued on the detailed design of the new scheme, which will be known as Environmental Stewardship. This is due to be launched early in 2005, subject to approval by the EC, which was still outstanding at the time this paper was written. Environmental Stewardship will replace ESA, CSS and the Organic Farming Scheme for new agreements.

### **Consolidation of the evidence base**

Over the years a great deal of monitoring data had been collected, particularly for the ESA. Many external studies had also looked at aspects of the performance of the schemes. The volume of this information, the complexity of some of the data and the inevitable gaps in the monitoring programme made it difficult to get an overall impression of how well the schemes had performed.

Accordingly, two major external reviews of the evidence base were commissioned. A review of environmental effectiveness, based largely on the data collected through the monitoring and research and development (R&D) programmes, was commissioned from the Ecoscope consultancy (DEFRA, 2003a) and an economic evaluation was commissioned from the Department of Land Economy at Cambridge University and CJC Consulting (DEFRA, 2002a).

### ***Environmental effectiveness***

On the basis of the monitoring data and a range of externally funded studies, the Ecoscope review concluded that the ESA had at least partially succeeded in achieving the goals set out in their performance indicators in the following broad areas:

- Maintaining wildlife value;
- Maintaining and enhancing landscape values; and
- Maintaining the value of the historic environment.

ESA were particularly effective in relation to the conservation of the historic environment. They were generally less successful in enhancing wildlife value, though this is perhaps not surprising since this was not initially seen as their main purpose.

When it came to CSS, Ecoscope looked at some targeted monitoring projects that had been carried out on CSS agreements. They also looked at the results of some preliminary assessments where

experts in their fields had been asked to predict the likelihood of success in achieving environmental outcomes. Their main conclusions were as follows:

- CSS has had some major successes in delivering localised benefits for particular birds, such as the circl bunting (*Emberiza circlus*) in Devon and the stone curlew (*Burhinus oedicnemus*) in Suffolk, Berkshire and Wiltshire.
- Across a range of landscape types, the majority of agreements were judged to be potentially effective in maintaining and enhancing wildlife and landscape value.
- In the uplands there were concerns about whether CSS agreements would succeed in enhancing wildlife and landscape value.
- Maintenance of historical and archaeological features and landscapes was one of the areas where performance had been less strong, though the ability to offer payment for reverting arable land to grassland was a very positive feature of CSS.

Ecoscope also concluded that because of their relatively limited coverage, none of the existing schemes had yet been able to stabilise or reverse losses amongst many groups dependent on very widespread habitats, such as most farmland bird species.

One useful lesson that emerged from the Ecoscope review was that in a range of habitats, including uplands, lowland species-rich grasslands and wetlands, management that relied on simple prescriptions such as maximum stocking rates was not flexible enough to enhance or in some cases even maintain ecological quality. This was because such simple prescriptions are unable to take account of between site and between year variations. Guidelines explaining the desired outcomes were suggested as potentially more effective in such cases where management has to be “fine-tuned” in order to achieve the desired environmental outcomes.

### ***Economic evaluation***

The economic evaluation included consideration of whether there was a real need for agri-environment schemes in England. This looked at whether the scheme delivered environmental benefits, and whether these benefits could be delivered without government intervention.

Although recognising that there were disputes about the methodology for quantifying environmental benefit, the economic evaluation concluded that all the studies done to date showed that English agri-environment schemes have a high benefit/cost ratio.

The report identifies a range of market mechanisms that could deliver some of the same environmental benefits as agri-environment schemes, including the production of organic and “niche” products and tourism. They concluded, however, that there were severe difficulties with these mechanisms. In the case of organics, the main difficulty was generating a sufficient market premium to offset the costs of higher standards of environmental management. In the case of tourism, the problem was that most of the income generated from environment-related tourism went to non-farming businesses. The report concludes that there is substantial market failure and that market provision is not, and is not likely to become, a substitute for publicly funded agri-environment schemes.

The study also looked in depth at the payment rates used in the existing agri-environment schemes and the way they were calculated. The report highlights the fact that under CSS, rates have been set so as to optimise rather than maximise uptake. This achieves good value for money but, with fixed national rates tends to buy the most change in areas where it is cheapest, not necessarily where it is most needed. It is for this reason that ESA payment rates, where the priority has been to achieve high uptake within defined areas, have historically tended to be rather more generous. However, the report also points out that the relationship between payment rate and uptake is not simple, and that other factors such as the role of advisors and intermediaries also have an influence.

The authors considered several alternative methods of assessing payment rates. They concluded that a fully competitive tendering process would probably deliver optimum value, but would be impossibly time consuming. Nevertheless, they felt that the model of public procurement was useful, and for this reason dismissed attempts to value the environmental outcomes of agri-environmental management as irrelevant to the process of setting payment rates. They concluded that the use of some measure of income forgone was inevitable, but argued that in an increasingly diverse industry, and one where land abandonment was becoming a possibility, the approach needed to be very broad. They argued for the concept of “total opportunity cost” which takes account of time inputs, loss of alternative income generation streams and direct costs, as well as direct loss of agricultural production.

The authors also recommended that future agri-environment schemes should try out the use of financial incentives such as bonuses linked to achieving environmental outcomes. They stressed the need for caution in this, and pointed out that it would only be reasonable to do this where the environmental outcome is closely linked to the management actions.

### **Initial public consultation**

These two evaluations yielded much useful data, but it was also felt necessary to capture the views and experience of those directly involved with the operation of agri-environment schemes, whether agreement holders, stakeholders or staff involved in their administration. This was particularly important in order to obtain information on operational aspects of the existing schemes and of how they were perceived.

### ***Process***

This consultation asked a series of open questions about how agri-environment schemes could be improved in future, but also asked people to identify the strengths and weaknesses of the existing schemes. Over 200 stakeholder organisations were invited to respond, and the consultation was also opened to staff in the Rural Development Service (RDS) and to the public *via* the DEFRA website. One hundred and thirty-three responses were received, containing several thousand individual comments.

Faced with this mass of information a novel approach was needed to analyse and make sense of it. After a few initial trials it was found that nearly all the answers to most questions could be classified using a limited number of generalised responses, typically 2 to 4, and very rarely more than 6. For each question, the responses received were first collated, then skim read and the generalised responses drafted. Each response was then read in more detail and assigned to one, or sometimes more than one, of the generalised responses, with a separate note being taken of any significant differences or additional points.

In this way the responses to each question could be classified into a manageable number of categories. Respondents were also categorised according to their sectoral or other interests, so that variations in views between different sectors would become obvious.

The results of this analysis were published in a report, which was made available on the web and to all those who had been consulted (DEFRA, 2002b). In the report, the raw categorisation was supported for each question by a relatively short piece of explanatory text.

### **Results**

As well as a great deal of information on what people wanted from agri-environment schemes in the future, this consultation generated a very large quantity of useful, but often very detailed feedback on the strengths and weaknesses of CSS and ESA, much of which could not have easily been obtained by conventional monitoring techniques (Table 1). This information does, of course, have to be approached with caution, since most consultees have sectoral interests to promote. Greatest weight was therefore given to points where there was a degree of cross-sectoral consensus.

**Table 1. Strengths and weaknesses of the ESA and CSS identified through the public consultation process**

<b>Strengths</b>	<b>Weaknesses</b>
<p>The main strengths identified by consultees as common to both schemes included:</p> <ul style="list-style-type: none"> <li>• The voluntary nature of the schemes.</li> <li>• A considerable degree of flexibility.</li> <li>• The availability of advice and continued support from DEFRA staff.</li> <li>• The involvement of partner organisations in scheme operation.</li> </ul>	<p>Consultees identified several weaknesses common to both schemes, including:</p> <ul style="list-style-type: none"> <li>• The prescriptive nature of the schemes, which often makes it difficult to fine-tune more complex management.</li> <li>• Patchy coverage of the Historic Environment.</li> <li>• Insufficient feedback to agreement holders on the environmental performance of their management.</li> </ul>
<p>ESA were identified as having several additional strengths, including:</p> <ul style="list-style-type: none"> <li>• Comparative simplicity.</li> <li>• The ability to effectively influence the management of whole landscapes.</li> <li>• The tiered structure, providing opportunities for agreement holders to increase their commitment over time.</li> <li>• Their whole farm approach.</li> </ul>	<p>Additional weaknesses identified for ESA included:</p> <ul style="list-style-type: none"> <li>• Land that required higher tier management was deteriorating where farmers were not willing to upgrade from the base tier.</li> <li>• The limited geographical coverage of ESA sometimes led to problems at the boundaries.</li> <li>• The range of higher tier options was felt by some to be insufficient.</li> </ul>
<p>The main additional strengths of CSS were identified as:</p> <ul style="list-style-type: none"> <li>• The wide range of management options available.</li> <li>• The combination of a national scheme with local targeting.</li> <li>• The availability of “special projects” that can be tailored to local needs.</li> </ul>	<p>Additional weaknesses identified for CSS included:</p> <ul style="list-style-type: none"> <li>• The concentration on enhancement leads to lack of reward for those who have maintained their existing features.</li> <li>• Some good quality applicants were put off by the relatively low payment rates.</li> <li>• The scheme was criticised for its complexity.</li> </ul> <p>The scoring system was felt by some to encourage applicants to over-commit.</p>

## Second public consultation

### *Process*

The results of the commissioned reviews and the first public consultation were used, along with a considerable body of additional evidence collected by the review team, to develop thinking on the: objectives, broad structure, design, administration and monitoring of the proposed new agri-environment schemes.

This was used to draft a comprehensive “Framework document” (DEFRA, 2002c). This document explained in some detail why thinking on the new schemes was developing in the way that it was. For each of the broad headings listed in the previous paragraph, any relevant government policy decisions and recommendations were explained, relevant results from the first consultation exercise were listed, and relevant evidence set out. This document then explained for each of the broad areas, the decisions that had been taken to date, proposed solutions in other areas and highlighted the areas where options were still under consideration. Consultees were asked for comments on the proposals and the options.

The results were analysed in a similar way to those of the first consultation exercise. This task was however considerably simplified by the more closed and defined nature of the proposals and options on which comments were invited.

### *Content of the Framework Document*

#### *Additional evidence*

The framework document picked up a considerable volume of additional research and monitoring information relevant to scheme evaluation and design. This included a considerable amount of information on current changes to the rural environment, which helps in both assessing the overall impact of the existing schemes and designing a scheme that can address current pressures effectively. The most significant of these are briefly summarised below:

The Countryside Survey 2000 found that some of the major losses of farmland habitats reported in the 1980s had slowed or ceased (Haines-Young, *et al.*, 2000). Although some losses of hedgerows were still found, new planting had accelerated, resulting in a possible net gain in overall hedgerow length. The number of ponds also increased. Although no data were collected on why these changes had occurred, it is likely that agri-environment schemes, which offer financial support for hedge and pond restoration, have contributed. The survey also found some worrying trends within some widespread habitats. In particular, plant diversity continued to decline in the least agriculturally improved grasslands in Great Britain. On roadside verges, this decline appeared to be correlated with increasing nutrient levels.

A major survey of the flowering plants of Britain and Ireland identified a list of broad-scale changes to flowering plants in the farmed landscape of the UK, including England, between the 1950s and the period when the new records were collected, from 1987 to 1999 (Preston, *et al.*, 2002). These include:

- A decrease in the frequency of the traditional wild plants associated with arable and horticultural habitats, calcareous and acidic grassland, dwarf shrub heath, bogs and mountain habitats;

- An increase in the limited range of plants associated with agriculturally improved grassland;
- A decline in species typical of habitats where nutrient levels are low.

The authors identify the main drivers of these changes as habitat loss, eutrophication, and the increased specialisation of farming.

English Heritage estimate for England that 17% of traditional farm buildings are at risk and a further 24% are vulnerable. They also reported that their 1995 “Monuments at Risk” survey showed that agriculture had been the biggest single cause of damage to ancient monuments since 1945 (Bournemouth University, 1998). Thirty-two per cent of all rural field monuments were under potentially damaging cultivation at the time of the survey. A study commissioned by DEFRA of the protection of historic features in ESA showed concern about continued damage, usually as a result of incomplete information on the historic features present on the farm (ADAS, 2002).

English Nature and the Environment Agency jointly commissioned a review of practical management measures for the control of diffuse pollution (Withers, *et al.*, 2003). This concluded that a range of low-cost management measures could help control diffuse pollution, but they would only be effective if used in the right places and right combination.

A survey of public attitudes to the quality of life and to the environment carried out by National Statistics for DEFRA showed strong public support for agri-environment type payments to farmers for environmental management. Sixty-nine per cent of respondents said they would strongly or slightly support paying farmers to regenerate threatened landscapes and habitats (DEFRA, 2001). Further evidence of public support comes from the finding that 92% of respondents said they would strongly or slightly support a policy to plant trees and hedgerows where possible.

#### *Framework of proposed new agri-environment scheme*

The framework document included an outline of the proposed new scheme, subsequently called Environmental Stewardship. The main design features mentioned were:

- **Objectives:** Environmental Stewardship will continue to address the four current objectives (Conservation of biodiversity, landscape, access and the historic environment) and will also have a fifth primary objective, that of natural resource protection. Spin-off benefits for genetic conservation and flood management would be formally recognised by making these secondary scheme objectives.
- **Broad structure:** The two key recommendation of the Policy Commission on the Future of Farming and Food were accepted, and a scheme structure developed on a two-tier model, with a new “broad and shallow” entry level tier (Entry Level Stewardship) and a single upper tier (Higher Level Stewardship) to replace CSS and ESA.
- **Entry Level Stewardship (ELS):** This would be a non-competitive scheme open to all farmers. Farmers would be offered a flat rate annual payment per hectare for five years. In return they would be required to identify and map environmental features on their farm and retain them for the duration of their agreement. They would also have to choose a package of annual management measures from a wide menu of options. Each option will be worth a certain number of points per hectare, per metre or per other appropriate unit, and the farmer must accumulate sufficient points to reach a threshold score proportional to the area of the farm.



- **Organic component:** Entry Level Stewardship would have an organic component (Organic Entry Level Stewardship [OELS]), replacing the existing Organic Farming Scheme and using the same principles as the main scheme, but with options adapted to organic farming practices.
- **Higher Level Stewardship (HLS):** Access to this component of the scheme would be discretionary. It would focus on the more valuable features and areas. It would have a wider range of management options and would have a strong focus on achieving environmental outcomes. Completion of a comprehensive environmental audit of the farm (subsequently termed a Farm Environmental Plan or FEP) would be a pre-condition for entry.
- **National vs regional:** Environmental Stewardship would be a national scheme delivered in a consistent way across the country. The wide menu of management options would however allow agreements to be tailored to local needs. Within Higher Level Stewardship there would be additional opportunities to fit agreements to regional and local conditions.
- **Advice and support:** Farmers entering Higher Level Stewardship would be offered advice and support in order to ensure that the agreement delivered optimum environmental benefit. They would also be offered continuing support and feedback during the term of their agreement. By contrast, because of the very large number of expected applicants, Entry Level Stewardship would be designed to function as a “hands-off” scheme, with farmers receiving written guidance and offered collective training, but no one-to-one support.
- **Monitoring and evaluation:** Future monitoring and evaluation of Environmental Stewardship would be built into the design of the scheme.

### **The Entry Level Stewardship pilot**

The concept of an entry level scheme was largely untried in the UK. A business case assembled to justify funding the scheme suggested there was good evidence that such a scheme should produce major benefits, but it was felt necessary to conduct a pilot in order to assess whether the scheme had the potential to succeed. The pilot scheme was developed during the autumn and winter of 2003 and the scheme literature was tested on a sample of farmers prior to launch in a “pre-pilot” exercise. The pilot was launched in four areas of England in February 2003.

#### **Choice of pilot areas**

These areas were chosen by first using data held on the DEFRA GIS system to compile a long list of areas representative of arable, lowland livestock, mixed lowland and upland farming types. Areas were chosen that contained in the order of 200 holdings. Areas covered by ESA, National Parks, high concentrations of CSS agreements and previous land management initiatives were avoided in an attempt to select areas representative of the wider countryside. RDS regional staff then reduced this long list to a short list of suitable areas using their local knowledge. The final selection was made nationally to ensure a broad geographical spread.

The four areas selected were as follows:

- Market Deeping, Lincolnshire: arable and general cropping;
- Mortimer, Berkshire: lowland mixed farming;
- Tiverton, Devon: lowland livestock, including dairying; and

- Barnard Castle, County Durham: upland, including the “upland fringe” of enclosed “in-bye” land.

### ***Success criteria***

In order to ensure a fair trial of the scheme, farmers within these four pilot areas were offered a state-aided five-year Entry Level agreement. A series of presentations and workshops were held to publicise and explain the scheme, but one-to-one advice was not offered, except for a telephone help line.

In advance of the pilot a series of criteria were defined by which the success of the pilot would be judged. These covered four main areas; satisfactory uptake of the scheme by farmers, delivery of environmental benefits, acceptability of the scheme to farmers, partners and the wider community and successful and efficient administration. The key success criteria are set out in Table 2.

### **Evaluation of the Entry Level pilot<sup>3</sup>**

Although the pilot itself was designed to last for five years, feedback from it was required within months of the launch in order to inform the decision on whether to proceed with the main scheme. A contract to undertake a rapid evaluation of the scheme against the criteria listed above was given to Central Science Laboratory (CSL). It was agreed that the results of the evaluation would be fed through in phases as they became available, with the first results in August 2003 and with the evaluation being largely completed by October 2003.

### ***Methods***

The evaluation covered all the success criteria and consisted of a socio-economic and an environmental module. The socio-economic module was based largely on an analysis of the responses to questionnaires sent to participating and non-participating farmers within the pilot areas and to locally based stakeholder organisations.

The environmental module used a modelling approach, based on the pattern of management option uptake by farmers and a matrix which listed and weighted the potential environmental benefits of each management option for each one of a series of environmental indicators.

This matrix was compiled by CSL using an expert panel composed largely of scientists and practitioners with relevant experience, who were asked to rank the potential benefits of each management option against a series of 25 environmental indicators covering the biodiversity (habitats and species), landscape, historic environment and natural resource protection objectives. The benefits of each option were ranked on a scale of 0 to 3.

In phase I of the evaluation, completed in August 2003, an index of potential environmental benefit was calculated for each indicator in each pilot area by multiplying the benefit score by the number of farms taking up the option.

This measure of potential was then refined by two exercises to look at the extent to which the potential benefit of the management options would be affected by the way in which farmers were

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3. Full details of the methodology, including the benefits matrix are included in the CSL evaluation report (Boatman *et al.*, 2004).

planning to implement the management options. The first of these exercises assessed whether the pattern of option implementation, shown on the agreement maps, was compatible with options delivering their full potential. The second exercise involved field inspection of a sample of agreement to check on the appropriateness with which options had been sited in the field. In both cases, where options were found not to have been appropriately sited, the benefits score was reduced. The results of this more sophisticated exercise were reported in October 2003.

**Table 2. Success criteria for the Entry Level pilot**

Main Area	Success criteria
1. Deliver environmental benefits	1.1 Pattern of uptake of environmental management options indicates that the pilot will deliver a range of substantial environmental benefits 1.2 Pilot delivers additionality <sup>1</sup> across all farm sizes and types 1.3 Quality of implementation of environmental management options confirms that the pilot will deliver a range of substantial environmental benefits 1.4 Participating farmers are aware of why and how they carry out the management specified.
2. Achieve satisfactory uptake	2.1 Pilot Scheme uptake: At least 200 farmers join the scheme, preferably with at least 50 in each of the four pilot areas.
3. Demonstrate acceptability to farmers, partners and the wider community	3.1 Farmer attitudes: Participating farmers: <ul style="list-style-type: none"> <li>• are positive towards the scheme and would apply again;</li> <li>• feel that the scheme will be compatible with the continuation and future development of commercial farming.</li> </ul> 3.2 Partner support: Partner organisations in pilot areas express their support for the scheme, provide feedback about the scheme and contribute to the evaluation. 3.3 Local communities: Local people in the pilot areas have an awareness of the pilot scheme and support its objectives as being worthy of public funding.
4. Successful administration	4.1 Administration: The scheme as a whole is successfully administered by DEFRA, and a viable model is developed for the main scheme which accurately predicts processing times and resource requirements. 4.2 The application process and preparation of the environmental farm record: Farmers have successfully completed the application process and the environmental farm record, demonstrating that it is possible to implement a simple “hands-off” scheme. 4.3 Compliance inspections: Inspections of the pilot scheme, in accordance with the relevant European Union legislation, are successfully completed. RPA develop proposals for an efficient inspection system for the main scheme.

*Note:*

1. “Additionality” being defined as both the provision of new or increased environmental benefits and the prevention of loss or deterioration of existing benefits which might otherwise have occurred.

*Source:* DEFRA.

## Results

The CSL report concluded that the pilot had met the success criteria listed in Table 2:

- Measuring environmental benefit was the most complex part of the evaluation, and the timescale meant that there was no alternative to relying on the modelling approach outlined above. Overall this predicted substantial environmental benefits. The highest potential benefits were predicted as being for the historic environment, landscape and invertebrate indicators as well as for some farmland bird species, including barn owl *Tyto alba*, kestrel *Falco tinnunculus*, linnet *Acanthis cannabina*, tree sparrow *Passer montanus*, yellowhammer *Emberiza citrinella* and song thrush *Turdus philomelos*. Lower environmental benefits were predicted for other indicators, particularly those linked to unenclosed uplands, where the scheme only offered limited management options.
- The pilot did encourage farmers to improve or continue their management and so did deliver additionality, though this was not the case for all options, with the exceptions including woodland rides and improved permanent pasture.
- The quality of the initial implementation of the management was generally good, though with some room for improvement, particularly over the siting of buffer strips.
- The surveys revealed that farmers were generally clear about why and how they were being asked to carry out management measures, though they would welcome more help in relation to buffer strips, archaeological features and soil erosion control.
- Uptake was good. Two hundred and sixty-nine farmers entered the scheme, with 50 or more from each pilot area. The total area of land entered into the scheme was 47% of the land within the four pilot areas.
- The socio-economic module revealed strong majority support for the scheme. Amongst participants the rate was 96% and even amongst non-participants it was 63%.
- Most participants said they would renew their agreements and all partner organisations consulted expressed support for the scheme.
- The administration generally worked well, and most did not feel it was over-burdensome, though there were some suggested improvements.

Overall CSL concluded that the pilot had proved that an Entry level Scheme was well supported, logistically feasible and capable of delivering substantial environmental benefits. Their final report made several suggestions for improving the scheme, most of which were acted upon.

### Finalising scheme design

The responses to the consultation document and the first results from the ELS pilot evaluation were used to produce a detailed scheme design document (DEFRA 2003b). This provided a detailed description of scheme structure and of each of the three elements, ELS, OELS and HLS. The two entry level elements of the scheme largely followed the design used in the pilot. For HLS, management options would contain not only management prescriptions, intended to define the outer envelope of acceptable management, but also indicators of success, intended to help farmers and advisers tailor

management to achieve the desired environmental outcomes. Each management option would also state clearly the environmental features that it was intended to benefit on a particular farm.

The design document suggested a series of management options, those for ELS being based on experience gained from the pilot, those for HLS being produced in conjunction with a series of specialist working groups drawn from major stakeholders as well as from DEFRA staff. A number of changes were made to the ELS options as a result of the recommendations from the pilot scheme evaluation. These included the dropping the woodland ride and improved permanent pasture options. The most significant change was probably to rebalance the incentives to make the “easier” ELS options, such as stone wall and hedge maintenance, less rewarding so as to encourage farmers to choose a wider range of more demanding options. The design document also proposed a series of detailed objectives for the new schemes and for HLS, a list of environmental features that the scheme should try to benefit.

The consultation this time focused on the detail of the management options that should be offered, the detailed objectives and the environmental features. Consultees were asked to submit comments using a fixed format response template in order to allow very rapid analysis of the results. Feedback from this exercise was used to help finalise the details of the programme modification request submitted to the EC in April 2004.

### **Plans for the future evaluation of Environmental Stewardship**

The need to report on and evaluate the new scheme has been borne in mind throughout the design process. A new IT system should make it much easier to extract information on area under agreement, uptake of different options, expenditure on different types of management and other similar measures of scheme output. Design features of HLS should, however, allow us to go beyond this and, for the first time, collect some data on scheme outcome from data collected routinely on every HLS agreement.

This is made possible because applicants to HLS will be asked to submit a farm environmental plan, which will list the most significant environmental features and provide an assessment of their environmental condition. In drawing up an agreement, these features will be linked to appropriate management options. During the course of the agreements, condition will then be re-assessed as part of the process of gauging the success or otherwise of the management measures.

It is recognised that there will be considerable limitations on these data, particularly because of the largely subjective nature of the individual assessments of feature condition. An evaluation strategy is therefore being developed that will validate and supplement these data with the following:

- The results of more traditional, targeted monitoring programmes,
- R&D projects aimed at establishing causal links in relation to specific aspects of the scheme; and
- Analysis of data from existing long-running surveillance projects.

This last is likely to be particularly important for ELS, where no data are routinely collected on agreement outcome, where one might expect to see impacts, for example on birds, at the scale of the whole countryside, and where finding areas outside the influence of the scheme to allow direct comparisons is likely to become difficult.

A series of high level targets have been proposed for the new scheme covering all the main scheme objectives. The nature of these is such that it will very rarely be possible to measure these directly, so for each target a series of more measurable indicators is being developed which should collectively indicate whether or not the target is being met.

In addition, wider changes in the patterns of land use and in agriculture will be monitored in order to ensure that agri-environment schemes continue to address the priority issues in a situation where environmental pressures are likely to change rapidly as the full impact of reform of the Common Agricultural Policy (CAP) becomes apparent.

## **Conclusion**

A combination of external reviews, consultation exercises and in-house investigation proved an effective way of evaluating the environmental benefits and economic efficiency of the existing English agri-environment schemes and of getting some information on how well the schemes operated and how they were perceived. The review process was able to make use of the results of this evaluation in the design of a new scheme.

An issue which has emerged from the review process is that conventional monitoring, and set piece reviews such as this one, take a long time to feed back into improved scheme design. The evaluation of the Entry Level pilot shows that it is possible to generate feedback in a much shorter timescale, and this is likely to be particularly important in the next few years, as the effects of CAP reform on farming and rural land management become apparent.

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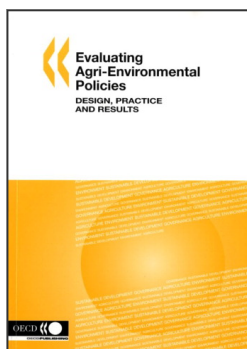
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