

Estimating the Incidental Socio-Economic Benefits of Environmental Stewardship Schemes

The direct benefits of Environmental Stewardship (ES) schemes are well documented but what is, as yet, poorly understood and insufficiently recognised are the incidental benefits of ES schemes which capture those benefits to the wider economy and society beyond the scheme's original remit. This study was commissioned by Defra and Natural England to assess the incidental socio-economic benefits of ES in England and, in particular, the extent of local multiplier effects and employment creation as an indirect result of agri-environment expenditure.

The LM3 model, originally developed by the New Economics Foundation (NEF), was used for estimating local economic impacts of ES schemes.

The model measures the impact of the first three rounds of spending in the economy and estimates the magnitude of subsequent rounds to derive income and employment effects and multipliers. A total of 48 LM3 income and employment models were produced.

Data required for LM3 models and the social assessment of ES was collected through face-to-face and telephone interviews. A sample of 360 agreement holders was selected for interview and stratified on the basis of scheme type, agricultural landscape type and agreement value. In total, 72 agreement holders were interviewed face-to-face and 288 by telephone. In addition, both telephone and face-to-face interviews were conducted with 85 local businesses, involving agricultural contractors, suppliers of agricultural goods and advisors to identify the income and employment impacts of the ES schemes on these businesses.

The research found that, at the national level, the derived local income multiplier for all the ES schemes was 1.42. Thus, a £1 expenditure on ES activities could be said to result in a total output in the local economy area of £1.42. The 'scheme' multiplier for all ES schemes, which divides the total income effect by the total scheme payment, is 0.26. This shows that for every £1 of ES scheme payment that goes to the agreement holder, 0.26 is generated off-farm in the local economy through direct expenditure and indirect and induced effects.



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Other results found that the Higher Level Scheme (HLS) generated the highest income multiplier of 2.23 in the local economy and that the HLS boundary option group generated both the highest income multiplier and employment multiplier. This option group contains a high proportion of capital items, such as those associated with fencing and hedgerows, which are popular options and require the use of contractors and the purchase of materials. As livestock ES schemes contain a high proportion of boundary options it is not surprising that the lowland livestock farm type and the mainly livestock dominated North West and West Midlands regions produced the highest income multiplier.

Looking at the social benefits of ES, the research found that ES schemes have contributed positively to the management skills base of farmers and increased their environmental knowledge and general awareness of the environment when managing the farm. Arable agreement holders particularly benefited in this way and were also more likely to have attended a training course. This may reflect the more demanding nature of the arable options where agreement holders are required to do more than their usual farming practices.

44% of agreement holders reported a transferability of skills from ES schemes to other projects/areas of farm work. They tended to apply the scheme management principles when carrying out other tasks around the farm. This applied particularly to field operations such as cultivation of field edges, spraying and chemical usage, drilling and the timing of field operations.

The survey found that ES can play an important part in developing new social contacts and networks. Of the advisors used by agreement holders, 40% were not known to them previously, which indicates that these agreement holders had to reach out beyond the established social networks around their farm or business for this expertise. This was particularly the case for HLS agreement holders and for the lowland

dairy and livestock farms. These new linkages and flows of information can potentially lead to profound changes in social and business activity.

Key implications identified for policy concerned with delivering value from AES were:

- confirmation for the first time at a national scale that the incidental benefits of ES have a significant impact on the local economy. Due to the nature of ES requirements, much of the income and employment benefits are retained locally.
- that the uptake of capital works options within HLS schemes produces the highest income and multiplier effects in the local economy. Consideration needs to be given to this when contemplating future policy change.
- in some areas where farm underemployment is widespread, ES appears to have been important in retaining family members and farm employees on the farm. This has important policy implications at a time when farm employment is contracting.
- ES schemes underpin employment for some local businesses, including stone walling and hedge restoration contractors and some advisors. The demise of such schemes may mean that some businesses cease trading and traditional rural skills are lost.
- ES schemes have resulted in a transferability of management skills to other areas of the farm, particularly in relation to field operations. This demonstrates that ES can produce wider environmental benefits across the farm, beyond the ES agreement.

Further details can be found in the following journal articles based on the research:

Courtney, P., Mills, J., Gaskell, P., Chaplin, S. (in press) Investigating the incidental benefits of Environmental Stewardship schemes in England. *Land Use Policy*

Mills, J. (in press) Exploring the social benefits of agri-environment schemes in England. *Journal of Rural Studies*

