



Land stewardship in England post-2013: CAP Greening and Agri-Environment

Report for

**National Trust and
The Co-operative Farms**

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Report prepared for

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Executive Summary

The European Commission's proposals for the Common Agricultural Policy (CAP) over the next programme period 2014-2020, published in October 2011, include a provision for 'green payments' under Pillar 1. This would effectively make 30% of a farmer's direct subsidy payment dependent on employing certain basic practices that are beneficial for climate and the environment. Understanding the relationship between these practices and current agri-environment schemes will be important to ensure the right approach is taken to realise the environmental potential of the CAP envisioned in the Commission's proposals.

This research focuses on the interaction between the approach taken to Pillar 1 greening and the implications for Pillar 2 agri-environment schemes in England. It examines the options for re-calibrating Environmental Stewardship (ES) in a way that raises the bar of the current Entry Level Stewardship (ELS) scheme. It identifies areas of equivalence within existing agri-environment measures that could form part of or wholly contribute to Pillar 1 greening, via ELS Light or Greening by Definition¹ and highlights opportunities for ELS+ under a revised Rural Development Programme for England. This research has been carried out during the on-going negotiations of both the future CAP and the EU budget under the Multiannual Financial Framework (MFF).

The future of the CAP remains unclear. Pillar 1 greening proposals have caused and continue to be the subject of much debate. The issues associated with greening are complex and relate to funding, eligibility and fit with existing CAP measures. In whatever form the greening of direct payments is introduced, it will present both challenges and opportunities for agri-environment schemes, and the farmers participating in them.

The challenges include the approach taken to Pillar 1 greening, the type of measures used, the ELS options selected to contribute to greening (if any), the impact on ES payment rates and ultimately the (differential) impacts on farm businesses. Any transitional arrangements will also need careful consideration. Arguably the greatest challenge to any future agri-environment scheme, however, comes in the form of a significant potential for a reduced CAP budget allocation as a result of overall EU budget negotiations. This is expected to have a disproportionate and negative impact on the overall Pillar 2 budget and consequently an adverse effect on the agri-environment budget in England for 2014-2020; agri-environment schemes will be particularly affected given the distribution of the current Pillar 2 budget.

Despite these challenges, there will be opportunities. As a result of greening, the environmental baseline provided through Pillar 1 should be raised to some extent. This presents an opportunity to improve scheme coherence within Environmental Stewardship and to refocus and enhance ELS. This in turn should enable future priorities to be addressed through a successor scheme (ELS+) subject to the available budget.

In order to meet these aims, a future ELS scheme should benefit both the farmed environment and sustainable farming. It should build on the achievements of ELS to date, and focus on and incentivise sustainable agricultural production and the delivery of a broader range of ecosystem services. In particular it should support climate change

¹ "ELS Light" – an agri-environment style scheme in Pillar 1; and "Greening by Definition – whereby ELS stays in Pillar 2 but provides automatic entitlement to greening payments for participating farmers.

mitigation and adaptation, encourage landscape scale working and ecological networks, and address specific priorities such as compliance with Water Framework Directive. Lastly, ELS+ should improve awareness, interest and ownership of the scheme amongst farmers and increase public understanding.

The ability of the scheme to deliver these goals will depend on good design, implementation and sufficient budget. Farmer and wider stakeholder involvement will be vital to help shape the scheme, including its structure, identify national and local priorities, put in place the right packages of options, integrate them with other rural development measures, and help to keep things simple, practical and attractive. This should ensure good uptake and delivery of the intended outcomes. The future arrangements for upland farms will require particularly careful consideration given their special circumstances and contribution to public goods.

The level of funding available for ELS+ will clearly be critical to secure the level of uptake and management required to deliver the objectives of the scheme. Regardless of the budget, priorities will need to be identified and funds allocated to achieve these objectives in the most efficient way. Advice and training will be required to ensure farmers have the skills and knowledge to implement ELS+ effectively and to support them to develop more sustainable farming systems and approaches.

As the outcomes of the negotiations become clearer it will be necessary for Member States to make informed and evidence based decisions about how best to implement Pillar 1 greening and how agri-environment schemes may need to be changed as a result. Based on the research set out in this report we are pleased to make the following recommendations for the consideration of Defra and Natural England policymakers when assessing the most effective means of implementing Pillar 1 greening and the redesign of Environmental Stewardship:

- Continue existing ELS agreements without requiring changes to contracts and payment rates until their natural expiration to ensure a smooth transition to the new arrangements and optimise future uptake of ELS+;
- Assess those ELS options which are potentially eligible for greening in more detail including: boundary features, trees and woodland, buffer strips, arable land and some historic environment options and protecting soil and water options (EFA); permanent grassland, rush pasture, rough grazing and moorland (maintaining permanent grassland); and encouraging a range of crop types (crop diversification);
- Ensure ELS+ addresses both environmental and sustainable farming priorities to encourage the delivery of a range of ecosystem services;
- Involve farmers and other stakeholders in the design and delivery of ELS+;
- Ensure that the options and architecture of any future ELS+ builds on experience of previous schemes, research and scientific evidence;
- Develop a simple and streamlined approach in the spirit of ELS but with enhancements (such as targeting and tailoring) to deliver the level of environmental management appropriate to the scheme;
- Consider fully the range of environments and farming systems present in England, their unique qualities and needs;

- Use the new flexibility envisaged within the proposed EAFRD² regulation to integrate ELS+ with other rural development measures to enhance its effectiveness in particularly by using advice, investment and cooperative measures;
- Ensure that the future ELS+ scheme builds on the raised baseline provided by Pillar 1 greening, however this is realised, to ensure environmental additionality;
- Secure a level of funding for ELS+, which is sufficient to build on and enhance the achievements of ELS to date and use such funds only to deliver public goods where there is a market failure; and
- Consider future environmental needs and sustainability beyond the next programming period, when formulating ELS+.

² European Agricultural Fund for Rural Development

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1. Background

The European Commission's proposals for the Common Agricultural Policy (CAP) over the next programme period 2014-2020, published in October 2011, include a provision for 'green payments' under Pillar 1. This would effectively make 30% of a farmer's direct subsidy payment dependent on employing certain basic practices that are beneficial for climate and the environment. The three measures proposed by the Commission relate to maintaining permanent grassland, crop diversification and managing 7% of a farm's area (excluding permanent grassland) as ecological focus area³.

Since the proposals were published, there has been much debate about the ambition, nature and detail of the greening measures and the need to achieve a level playing field across Europe. In particular, concerns have been raised over the limitations on greening that can be achieved through the annual management approach under Pillar 1, the risk of double funding between Pillar 1 and Pillar 2 measures, and the risk that some farmers will not seek to go beyond Pillar 1 greening requirements.

In England, as in other parts of the UK, there has been a great deal invested in and achieved by agri-environment schemes through successive rural development programmes; with almost 70% of farmland now under an Environmental Stewardship or classic scheme agreement. It is also recognised that there is a desire to improve such schemes through initiatives such as the Making Environmental Stewardship More Effective (MESME) initiative.

The research set out here considers the ways in which Environmental Stewardship might be adapted in light of Pillar 1 greening and improved still further in order to deliver current and future rural development priorities.

The National Trust and The Co-operative Farms (Farmcare Ltd) are well placed to take forward and commission this research given the significant part they play as the biggest farmers in the UK, as major recipients of agri-environment funding, as instigators of pioneering work on sustainable land management and the unique role they fulfil as either landlord or contractor for thousands of farm holdings across England.

³ The proposal sets out some exceptions to this requirement including small farms (<3ha) where these practices may compromise a farm's ability to function and organic farms which already carry out practices beneficial to climate and the environment.

2. Research aim, objectives and approach

The aim of this research project is to:

- Examine the options for re-calibrating Environmental Stewardship in England in a way that raises the bar of the current Entry Level Stewardship (ELS) scheme whilst transferring 'equivalent' elements to form the basis of Pillar 1 greening.

The four key objectives are to:

- Propose revisions to the existing entry-level scheme, identifying which existing requirements could be 'lifted and dropped' into Pillar 1 greening measures based on their level of equivalence⁴ to the EC's proposed measures;
- Explore the scope and options for an enhanced ELS (ELS+) to begin taking a new and more holistic focus on natural resource protection and ecosystem service provision, whether introducing a selection of new or modifying existing options (setting the future direction of agri-environment post-2020: 'future-proofing farming');
- Complement, add-value to and inform comparable work being undertaken by Defra and Natural England;
- Achieve a good reception from the farming community, with increased numbers of farmers likely to have access to more workable, ambitious and beneficial agri-environment support, creating a win-win situation for both farmers and the environment.

The research approach included: an inception meeting; a review of documents and data relating to CAP greening, Environmental Stewardship and future farming and environmental challenges; and an analysis of options going forward. An important and integral element of the research was a facilitated workshop held on 26 October 2012 at the Co-operative Farm's Down Ampney Estate, Cirencester. The workshop involved 26 participants with knowledge and experience of different farming systems across England, including farmers, farm managers, advisers, and representatives from a range of farming and landowner bodies and environmental organisations. A list of the organisations and individuals who attended is included in Annex 6.

Please note this short research project has been limited in the budget and time available. It has therefore sought to build on the knowledge and experience of those individuals and organisations attending the workshop rather than provide an in-depth review of all the issues associated with Pillar 1 greening (which are complex, changing and uncertain) and all the potential options for the evolution of Environmental Stewardship.

This report is intended to inform Defra and Natural England work, presenting clear recommendations to be taken into account when developing and implementing a new ELS scheme and mandatory greening as part of CAP reform post-2013. It seeks to improve the environmental baseline and ensure that there is an appropriate interface between Pillar 1 greening and redesigned agri-environment schemes within the RDPE.

⁴ For the purposes of this study, equivalence is considered in terms of both environmental outcomes and farm business impacts.

3. Pillar 1 greening proposals and variations

3.1 Commission's proposals

The European Commission's CAP reform proposals⁵ published in October 2011 aim to *"strengthen the competitiveness, sustainability and permanence of agriculture throughout the EU in order to secure for European citizens a healthy and high-quality source of food, preserve the environment and develop rural areas"* (our emphasis) .

The CAP reform is intended, amongst other things, to address better the challenges of *"climate change and sustainable management of natural resources"* and *"looking after the countryside"*, and help *"make the policy ...greener..."* .

There are a variety of ways in which greening could be achieved, but the published proposals are what the Commissioner has termed a 'compromise' between the pre-proposal demands of different stakeholders and the desire to be universally applied across the EU⁶.

The Commission's greening package for the whole CAP includes:

- Green Payments as part of Pillar 1 Direct Payments;
- Enhanced cross compliance conditions linked to Pillar 1 Direct Payments;
- Revised priorities for rural development programmes, including agri-environment schemes, under Pillar 2.

We focus our attention here on green payments as part of Pillar 1 Direct Payments with reference to the wider greening package where relevant. Further details of the proposed amendments to cross compliance and rural development can be found in Annex 1.

Green Payments

The greening of Direct Payments is a key component of the CAP reform that relates to an attempt by the Commission to re-legitimise Direct Payments in the eyes of taxpayers and to re-orientate this part of the policy more towards the provision of (environmental) public goods.

It is proposed that the current Direct Payments to holdings will be restructured to include a basic payment similar to that of the current Single Payment Scheme (SPS) and a Green Payment contingent upon farmers carrying out certain practices beneficial to climate and the environment. Green Payments will account for 30% of Member State national envelopes and, in practice, 30% of the farmer's direct payment.

The three greening measures proposed by the Commission in October 2011, together with a brief rationale for their inclusion, are as follows:

⁵ European Commission (2010) Proposal for a Regulation of the European Parliament and of the Council establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy. COM(2011) 625 final/2

⁶ Dacian Cioloş, European Commissioner for Agriculture and Rural Development, speech at CAP stakeholder conference "Taking stock with civil society on the future of the CAP" on 13 July 2012.

Crop diversification

This measure is intended to promote mixed cropping with the aim of benefiting biodiversity, landscape diversity, soils and water, and pest and weed control.

Where a farmer's arable land covers more than 3 hectares and is not entirely used for grass production, fallow or cultivated with crops under water for a significant part of the year, the farmer must have three different crops on his/her arable land. In order to ensure an even mix of crops, in line with the aim of the measure, any one crop shall not cover more than 70% or less than 5% of the land.

Maintaining permanent pasture

This measure is intended to conserve the area of permanent grassland and thereby its biodiversity, landscape, resource protection and climate change mitigation and adaptation benefits. As drafted, however, the measure does not distinguish between improved and semi-natural permanent grassland.

Farmers shall maintain the areas of permanent grassland declared on their 2014 application (reference areas). Farmers shall be allowed to convert a maximum of 5% of their reference area under permanent grassland (except in case of *force majeure* or exceptional circumstances).

Ecological focus area (EFA)

This measure is intended to benefit biodiversity, landscapes, soil and water quality; climate change mitigation and adaptation, pest control; and pollination. However the benefits are likely to depend on the how the measure is implemented, the types of land covered and the practices permitted. EFAs could potentially support habitat connectivity across farmed areas and contribute to and exceed the environmental benefits formerly provided by set-aside⁷.

Farmers shall ensure that at least 7% of their eligible land, excluding areas under permanent grassland, is EFA such as land left fallow, terraces, landscape features, buffer strips and areas afforested using Rural Development support.

Farmers would be required to adhere to all three measures – as they apply to the farm - to receive their Green Payment.

Organic producers would not be required to adhere to these greening measures as their system of production is considered to provide a clear ecological benefit – 'green by definition'. In addition, farmers in Natura 2000 areas would only need to comply with the greening measures in so far as they are compatible with the management requirements for the site.

3.2 Subsequent proposals and variations

Since the Commission's proposals were published in October 2011, the greening of Direct Payments has been a major area of contention in the ongoing CAP reform

⁷ It should be stated that EFA has distinct environmental objectives and should not be confused with the previous set-aside policy which was intended as a production control measure.

negotiations within the Agriculture Council, the European Parliament and amongst stakeholders (with environmental and farming stakeholders remaining largely opposed).

There has been significant debate on the principles, framework, measures and details. Key documents outlining different proposals and variations include the following:

- The Luxembourg paper⁸ which sets out three different options for implementing greening;
 - Option A - the agri-environment option
 - Option B - a much embellished version of the Commission's proposals
 - Option C - the cross compliance option
- The Commission's concept paper⁹ on greening, which makes some amendments and additions to the original proposal;
- The views of the European Parliament rapporteurs¹⁰ which include some modifications of the Commission proposal, a wider list of measures deemed to be green by definition, and proposed modifications to how greening could be implemented.

Further details of the proposed amendments can be found in Annex 2, however until agreement is reached on the CAP proposals these options remain merely options and should be treated as context to the focus of this report.

3.3 Present position

While the debate on greening continues, the Commission appears to be sticking to its published proposals together with the revisions tabled in its May 2012 'concept paper'. The European Parliament and Agriculture Council are keen to push for more flexibility however the Commission has stated that this would be unacceptable if it results in a weakening of the proposals. So far this is stalemate.

In the meantime:

- CAP reform cannot be completed until the Multiannual Financial Framework (MFF), and in particular the size of the CAP budget and its allocation between Pillars and Member States is known, which is unlikely to be before Spring 2013;
- Following the agreement of the MFF, no significant agreement on the CAP is expected until Summer 2013 at the earliest. Implementation may not start therefore until 2015 or later, potentially, necessitating some form of transitional arrangements.

As a consequence of the ongoing nature of the CAP negotiations there remain many unanswered questions relating to the greening package as well as wider reform proposals.

It is worth noting the UK position with regard to greening. The UK government is keen to pursue the options that will deliver the most for the environment¹¹. This ambition links to its view that: CAP should be principally about delivering public goods; there is an opportunity for re-orientating Pillar 1 in this regard; and the significant investment made

⁸ Luxembourg (2012) 'Greening Instruments – menu for Member States within the EU framework'. Presented to the Special Committee on Agriculture. April 2012.

⁹ European Commission (2012) Concept paper – May 2012, Agricultural Council - Greening

¹⁰ See IEEP (2012) Agriculture and Rural Development – European Parliament rapporteur reports and conference on shaping the future CAP

¹¹ Based on Defra feedback at CAP Greening Workshop held on 5 October 2012.

in Pillar 2 agri-environment schemes over many years, part funded by compulsory and voluntary modulation. The UK's preferred option, within the constraints of the proposals, is to operate an agri-environment type scheme under Pillar 1. However, such an approach carries little political traction at the EU level. Recognising the significant benefits provided by the agri-environment approach, the UK is therefore considering following a green by definition approach, whereby the current ELS, or selected elements of it, would be used to satisfy the mandatory greening criteria, perhaps even introduced in the form of an 'equivalent' certification scheme. It is unclear at this stage whether this approach would be voluntary, thereby requiring the introduction of the Commission's three measures in parallel, or if the revised ELS would become the only available means of adhering to the Pillar 1 greening requirements (and hence mandatory). There remain many uncertainties regarding the design and application of such an approach in practice. At present it is sufficient to base our analysis here on the premise that the UK will seek to maximise environmental benefits, whilst minimising additional administrative burdens and costs and where possible use an agri-environment type approach.

3.4 Summary of options and principles

Despite the uncertainties, it is possible to summarise the broad options and principles which the UK is likely to need to take on board when reviewing its existing agri-environment schemes including Environmental Stewardship.

3.4.1 Options

The following broad options exist for incorporating greening in Pillar 1. These are based on the Commission's proposals, subsequent variations and discussions to date.

1. The Commission's three measures, implemented through a 'one size fits all' approach across Europe in order to ensure consistency and maintain the integrity of the internal market;
2. Modifications to the Commission's proposals, with new measures introduced such as soil cover and nutrient management, in order to provide more flexibility, but maintain a pan-European approach;
3. A highly flexible alternative to the Commission's proposals, ranging from separate approaches to greening depending on the member state (as per the Luxembourg Proposal), to a menu-based approach to EFAs;
4. Greening through Pillar 2 which would involve a significant transfer of funding from Pillar 1, and carries little support at the EU level;
5. Include greening as part of cross compliance. Despite the practical attractions of this route, there remains a distinct lack of political will to pursue this solution;
6. Green by definition for those in agri-environment and environmental certification schemes (as is currently the case for certified organic farmers).

Some of these options are exclusive in that they would be applied in substitute (options 3, 4 and 5) of the Commission proposal. Others would be applied as modifications or additions to the Commission proposal (options 2 and 6).

There are common issues and elements – with options 1, 2, 3 and 6 in particular – which are of direct relevance to how greening and ELS might mesh together in the future. The new rural development priorities and measures, and the removal of the current four axis structure, are also relevant, as they provide an opportunity for a more flexible approach including more business-relevant and integrated packages designed with greening and agri-environment at their core. These aspects are explored in Section 5.

Options 4 and 5 are not considered further for the following reasons:

- (Option 4) Greening through Pillar 2, with the transfer of significant funding from Pillar 1, could provide great flexibility to deliver policy objectives and meaningful environmental outcomes, however at the time of writing it seems highly unlikely that this would be agreed to by all Member States.
- (Option 5) Greening through cross compliance has even less support from Member States. One concern relates to ensuring appropriate implementation across Member States, together with subsequent control and enforcement. It would also have implications for the whole Direct Payment budget and could have limited environmental additionality.

3.4.2 Principles

Principles underlying the greening proposals, derived from documents and statements produced by the Commission, European Parliament, Agriculture Council and others, are outlined below.

The greening proposals should:

- Raise the environmental baseline of Pillar 1 and hence Pillar 2;
- Deliver environment and climate change benefits;
- Be cost effective, with the environmental benefits outweighing the financial costs¹² to farmers;
- Contribute to the improved sustainability and future-proofing of agriculture;
- Be simple and avoid unacceptable administrative burdens and control requirements;
- Avoid double funding between Pillar 1 and Pillar 2.

In addition, the specific measures chosen for inclusion within Green Payments will need to be:

- Annual;
- Simple;
- Equitable across Member States and different farm types and farming systems;
- Compatible with the Pillar 1 IACS control and enforcement regime (ex ante) with very low error margins.

Note, these restrictions limited the inclusion of other measures originally on the table, such as green cover and crop rotations.

¹² European Commission (2011) Commission Staff Working Paper Impact Assessment “Common Agricultural Policy towards 2020” SEC(2011) 1153 final/2 indicates costs will, in general, increase for farmers.

4. Environmental Stewardship issues and opportunities

4.1 Environmental Stewardship - background

Environmental Stewardship (ES) is the main agri-environment scheme in England providing funding and support for farmers and other land managers who deliver environmental management on their land.

The primary objectives of ES are to:

- Conserve wildlife (biodiversity);
- Maintain and enhance landscape quality and character, by helping to maintain important features such as traditional field boundaries;
- Protect the historic environment, including archaeological features and traditional farm buildings;
- Promote public access and understanding of the countryside; and
- Protect natural resources, by improving water quality and reducing soil erosion and surface run-off.

In addition to its primary objectives, ES also has secondary objectives of genetic conservation and flood management. In meeting all these objectives, ES will support the adaptation of the natural environment to climate change and enhance the contribution of agriculture and land management to climate change mitigation, for example by reducing greenhouse gas emissions and protecting carbon storage.

A summary of the three key elements of ES – ELS, OELS (Organic ELS) and HLS (Higher Level Stewardship) is set out in Table 1.

	ELS	OELS	HLS
Level	Simplest level in ES	Organic version of ELS	A more demanding level that asks a farmer to achieve more
Eligibility	Open to all farmers	Open to farmers with organic land, land entering conversion or farms that combine conventional and organic enterprises	Negotiated with farmers in target areas or, outside of those areas, using target themes
Duration	5 years	5 years	10 years or longer
Payment	Standard payment of £30/ha/year (£8/ha/year on land parcels of 15ha or more above Moorland Line)	Standard payment of £60/ha/year Organic conversion aid payments also available at £175 per ha for 2 years on improved land and £600 per ha for 3 years for top fruit orchards	Requires a greater input in management terms, and so attracts higher payments. The actual payment varies according to the management required under the specific agreement
Other	UELS (Uplands ELS) addresses the particular needs of upland areas. It has a standard payment rate of £62 per ha per year, and £23 per ha per year on land parcels of 15 hectares or more above the Moorland Line	UOELS (Uplands OELS) addresses the particular needs of upland areas. It will have a standard payment rate of £92 per ha per year	

Source: Natural England (2010)

Table 1: Environmental Stewardship – outline

There is a wide range of options presently available through ES. The number of options by scheme, excluding compulsory requirements, is as follows: 66 (ELS); 97 (OELS); 21 (UELS/OUELS); and 107 (HLS/OHLS)¹³.

In addition to the above, 5 new ELS and OELS options will be available from 1 January 2014, together with changes to the points value of options and clarification/changes to the detailed option prescriptions, in order to improve the environmental benefits delivered by ELS. These changes take account of the recent Making Environmental Stewardship More Effective (MESME) project¹⁴. Other possible future improvements being considered under the MESME project include improving aftercare support for HLS agreements and making the most of existing scheme flexibility.

A summary of ES in terms of area under agreement, number of agreements and annual value, alongside remaining classic schemes, is set out in Table 2. ELS and OELS (including (O)UELS) accounts for £182.7m per year (45% of total agri-environment scheme expenditure) and HLS accounts for £165.4m per year (40.7%).

Scheme	Area (ha)	% of Utilisable Agricultural Area	Number of Agreements	Annual Value
CSS*	165,940	1.8%	5,958	£37.5 M
ESA*	277,792	3.0%	3,744	£20.6 M
ELS	5,461,653	58.8%	40,648	£156.8 M
OELS	333,710	3.6%	2,307	£25.9 M
HLS (Combined with ELS/OELS)	868,889	-	8,433	£142.6 M
HLS (Standalone)	108,342	1.2%	1,263	£22.8 M
Total HLS	977,231	-	9,696	£165.4 M
UELS	870,443	-	5,891	£72.5 M
Overall Total	6,347,437	68.4%	53,920	£406.2 M

*Countryside Stewardship Scheme and Environmentally Sensitive Areas Scheme, both now closed to new applicants
Source: LM Update 8, September 2012, Natural England

Table 2: Environmental Stewardship – area, number of agreements, annual value

Important benefits arising from agri-environment schemes (AES) in England, including ES, up to 2009, are summarised in Table 3.

Agri-environment scheme (AES) benefits
<ul style="list-style-type: none"> • 84% of Biodiversity Action Plan priority habitats eligible for AES are under agreement (management) • 41% of hedgerows in England are actively managed, and 24% of stone walls in England are maintained, under AES • Significant increase in breeding populations of certain nationally scarce farmland birds • Significant AES coverage of nationally important landscapes • Significant improvement in condition and reduction in risk for scheduled monuments on farmland (EM region) • High uptake of AES management options specifically designed to reduce soil erosion and diffuse pollution in priority catchments • Green house gas savings of 3.46 million tonnes of CO2 equivalent per year (11% reduction from agriculture, forestry and land management sector in England) • Generates further annual spending in the economy of between £178 million and £847 million and sustains between 1,800 and 15,000 jobs

Source: Agri-environment schemes in England 2009: a review of results and effectiveness, Natural England

Table 3: Agri-environment schemes – benefits

¹³ ELS, OELS and HLS Environment Stewardship Handbooks - 3rd Edition February 2010

¹⁴ <http://www.naturalengland.gov.uk/ourwork/farming/funding/es/mesme.aspx>

4.2 Environmental Stewardship – issues

This section highlights key issues relating to ES, and ELS in particular, of most relevance to this research.

4.2.1 Improving option selection under ELS

Farmers have a free choice in terms of the ELS options, limited only by the features present on their farms. This has led to farmers tending to choose options which are easier or less costly to implement and provide the least interference with existing farm management. The most popular options chosen for ELS agreements (prior to renewal) included:

- Boundary options including hedgerow management, ditch management, combined hedge and ditch management and stone wall protection and maintenance;
- Arable options including buffer strips, field corner management, wild bird seed mixture and overwintered stubbles;
- Grassland options including permanent grassland with low and very low inputs;
- Management plan options, which although discontinued in 2007, still featured prominently in early ELS agreements.

In contrast, there has been limited uptake of in-field options, especially in arable areas and options involving changes in management¹⁵. It is important to note however farmers have only been encouraged to consider in-field options relatively recently.

As a result, the combinations of ELS options required to achieve key outcomes have not necessarily been taken up in a co-ordinated fashion (e.g. Merckx, et al. 2009¹⁶). A similar comment could also be made with regard to having the right ‘package’ of wider rural development measures available to support farmers and deliver environmental and agronomic benefits (including, for example, capital investment and training, alongside agri-environment scheme support).

These and other concerns were flagged up in the Environmental Stewardship Review of Progress in 2008¹⁷. In order to address these, and improve the environmental outcomes of ELS, there have been a number of changes in scheme design including options available, points allocation and option prescriptions. Natural England also launched the ELS Training and Information Programme (ETIP) in 2010 with the objective of improving option choice *inter alia*. ETIP contractors and others have encouraged farmers and land managers to select priority options and provided advice on option placement and management. The farming industry has also developed the Campaign for the Farmed Environment to encourage better uptake of key options.

The result of these changes has been a steady improvement in the uptake of priority options – defined as those appearing in the ‘options bundles’ for Farmland Birds, Wildlife, Resource Protection, Climate Change and Historic Environment – from 56% of total points in March 2011 to 59.5% in September 2012, see Table 4.

¹⁵ Cumulus Consultants (2011). Preliminary assessment of the effectiveness of ETIP in influencing option selection. Report for Defra.

¹⁶ Merckx, T et al (2009). Optimizing the biodiversity gain from agri-environment schemes. *Agriculture, Ecosystems and Environment* 130 (2009) 177–182

¹⁷ Defra – Natural England (2008) Environmental Stewardship Review of Progress

Number of points delivered by High Priority ELS options	126,841,436
Number of points delivered by all ELS options	213,139,574
Percentage of all ELS points delivered by High Priority options	59.51%

Source: LM Update 8, September 2012, Natural England

Table 4: ELS options – uptake of priority options in live agreements

ELS option selection and placement, together with ‘best practice’ management during the term of the agreement remains a key issue in terms of the ensuring environmental effectiveness of the scheme.

A summary of current option uptake in ELS and UELS is shown in Annex 3. This confirms the dominance of grassland, boundary and arable options in ELS agreements, and compulsory options, cattle grazing and hay making in UELS.

4.2.2 Bridging the gap between ELS and HLS

There have been concerns raised concerning the ‘gap’ between ELS and HLS¹⁸. While all farmers are eligible to enter ELS and secure £30/ha/year (or the equivalent in upland areas and/or under OELS), far fewer are able¹⁹ to secure HLS agreements (18.4% of ES agreements by number, see Table 2). This includes the majority of farmers with expiring classic scheme agreements (Countryside Stewardship and Environmentally Sensitive Area agreements) who have had to settle for ELS agreements, and a corresponding drop in payment. The nature and extent of management required under HLS can also prove off putting to some farmers, even though there is greater remuneration for income foregone.

The 30 points/ha or £30/ha (or equivalent) has become both a target and a quota for farmers entering into ELS. For those farmers who might have higher ambitions to do more for the environment, there is no incentive to do so as no flexibility exists to pay a bit more money in return for additional environmental land management, even if this would be a priority option in a priority area.

Another ‘gap’ often mentioned by stakeholders is the lack of access to capital works payments under ELS. Payments for capital works such as fencing, hedging or walling can be a cost effective way of enhancing the countryside without necessarily requiring ongoing annual payments²⁰. This issue has begun to be addressed through UELS where a limited amount of hedgerow and wall restoration can be funded. The principle is being extended to ELS via a new option for hedgerow restoration from January 2013 but the number and type of capital works funded through ELS could be rolled out further.

4.2.3 Improving UELS

Feedback from a recent study into UELS²¹ highlighted some similar issues to ELS in the lowland areas and some specific issues. In general, UELS has been well received and is well managed, but there is some scope for further improvement in its uptake, operation, and environmental impact. Many smallholders and/or part time farmers feel that UELS is not for them or are unaware that they are eligible. More could be done to improve the

¹⁸ Defra /Natural England (2008) Environmental Stewardship Review of Progress, for example.

¹⁹ Either because they are not within a target area for HLS delivery or they do not have the priority features necessary to qualify for a successful agreement.

²⁰ EFNCP et al (2012). HNV farming in England and Wales – findings from three local projects

²¹ Countryside and Community Research Institute. 2012. *Attitudes to Uplands Entry Level Stewardship*. Natural England Commissioned Reports, Number 091.

environmental potential of UELS with most UELS options being chosen by farmers for ease of delivery rather than environmental gain. There are particular issues for common rights holders including: common land agreement holders reporting a bigger increase in workload than non-commons agreement holders; and fewer common land agreement holders (compared to others) feeling that payments are sufficient. This suggests more could be done to recognise/remunerate the work involved in managing commons; this links into encouraging and supporting collaborative, landscape working, see below.

4.2.4 Developing ecological networks and encouraging landscape scale working

The Lawton Report²² published in 2010 highlighted the importance of developing ecological networks. One specific recommendation was for a new type of ES to help buffer sites and establish stepping stones and ecological corridors. Lawton envisaged that this could be done through a simpler, lower-overhead, scheme than HLS, but one that pays more than ELS and can be more precisely targeted. To be successful, such a scheme would need to incorporate features designed to ensure environmental effectiveness without detailed one-to-one input from an advisor and as such, could be considered as an 'ELS-Plus'. These features might include regionally or locally tailored 'menus' or groupings of options, for example to buffer a particular site or sites. The scheme could include some relatively straightforward, but higher cost options, which are currently unsuited to ELS, for example, arable reversion and hedgerow restoration.

Linked to this, is the increasing emphasis being placed on landscape scale working to deliver conservation benefits across a wider area and contribute to climate change adaptation. Examples include the Wildlife Trust's Living Landscapes programme, the RSPB's Futurescapes initiative and Nature Improvement Areas, including those with which the National Trust is involved (such as Purbeck, South Downs and the Dark Peak).

There is potentially a greater role that could be played by both ELS and HLS in delivering landscape scale conservation benefits, including providing greater guidance and incentive for farmers to work together.

4.2.5 Delivering ecosystem services

Increasingly, the ecosystems approach is being incorporated into decision making and the delivery of ecosystem services is being built into the design of environmental programmes, schemes and initiatives. Recent activity in this area includes: the UK National Ecosystem Assessment which provides the first analysis of the UK's natural environment in terms of the benefits it provides to society and future economic prosperity; continuing work to develop Payments for Ecosystem Services (PES), both in the public and private sectors; and the Ecosystem Markets Task Force which will review the opportunities for UK business to develop green goods, services, investment vehicles and markets which value and protect the environment.

ES, as the main agri-environment scheme in England, has a key role to play in delivering ecosystem services on farmed land. Key services currently provided include: provisioning services facilitated through more sustainable agricultural management practices; regulating services such as soil, water and climate change mitigation and adaptation; and cultural services including the maintenance of traditional landscapes and

²² Lawton, J.H. et al. (2010) *Making Space for Nature: a review of England's wildlife sites and ecological network*. Report to Defra.

provision of recreational opportunities. Biodiversity as a cross cutting service is also one of the primary objectives of ES.

A recent study highlighted the potential of ES to enhance ecosystem services of direct benefit to agricultural production including soil formation, nutrient cycling, carbon sequestration, water regulation and purification, genetic resources, pest regulation and pollination²³. While many ES options indirectly contribute to these agriculturally-beneficial ecosystem services, relatively few are designed specifically with this purpose in mind; exceptions include options to reduce soil erosion, nectar mixtures targeted at the enhancement of pollination services, and beetle banks which support pest regulation.

There is scope for further development of these options for example: a wider range of options to provide floral resources for pollinators, pest predators and parasitoids, such as wild flower field margins; and a wider range of options designed to benefit genetic conservation including traditional crop varieties and traditional breeds of livestock. An illustration of this type of approach is 'Plan Bee' introduced by the Co-operative Group in 2009 to address the decline in pollinators across the UK. One of the strands of this project is work on its farming business in the form of wildflower research, 'bee roads' and increasing hives on its farms.

Further regulating ecosystem services, such as those relating to soil carbon and water management, could be delivered through options for re-wetting peat bogs, re-wilding rivers / improving flood plain management, and woodland planting in riverine habitats for flood mitigation.

4.3 Other policy drivers

In addition to the ES-specific issues raised above, it is important to highlight a number of other policy drivers which might influence the shape of ELS+.

4.3.1 Sustainable intensification

World demand for food is increasing, driven by a rapidly growing global population, increasing urbanisation and changing tastes and diets. At the same time, it is more important than ever that we improve the sustainability of agriculture and protect biodiversity and ecosystems. Government ministers are therefore urging farmers to "produce more, impact less", otherwise known as "sustainable intensification".

Foresight's Future of Food and Farming report²⁴ states "*sustainable intensification means simultaneously raising yields, increasing the efficiency with which inputs are used and reducing the negative environmental effects of food production*". It suggests this could be done by combination of application of existing best practice and the development of new technologies and systems.

The Natural Environment White Paper²⁵ also highlights its importance, making a commitment to: "*...bring together government, industry and environmental partners to reconcile how we will achieve our goals of improving the environment and increasing food production*".

²³ Food and Environment Research Agency. 2012. *Ecosystem services from Environmental Stewardship that benefit agricultural production*. Natural England Commissioned Reports, Number 102.

²⁴ Foresight. *The Future of Food and Farming* (2011). Final Project Report. The Government Office for Science, London

²⁵ HM Government (2011) *The Natural Choice: Securing the value of nature*. Natural Environment White Paper.

Within this context, there is a debate as to whether the UK has the appropriate combination of ‘land sparing’ (involving sustainable intensification of farmed land, and restoration of ‘spared’ areas for nature) and ‘land sharing’ to provide the optimum balance of agriculture and nature to halt biodiversity loss, see the recent Parliamentary Office of Science and Technology (POST) Note²⁶.

In any case, there is pressure for ES to contribute to sustainable agricultural production alongside delivering environmental priorities.

4.3.2 Climate change

Climate change is a key strategic issue in the current RDPE programme period and likely to be prominent in the future programme, in line with the rural development priorities highlighted in the Commission’s proposals in October 2011.

Climate change mitigation and helping the adaptation of the natural environment are now overarching themes within ES. ELS+ could contribute further towards these aims.

4.3.3 Water Framework Directive

Compliance with the EC Water Framework Directive (WFD) is another driver. There is already considerable effort being deployed through ES and associated schemes such as the Catchment Sensitive Farming (CSF) project. There are 1.3 million ha of ELS and HLS options with elements that contribute to some degree to the maintenance and improvement of water quality²⁷. There is however room to improve the efficiency and targeting of ES in this respect and work to meet WFD resource protection objectives is being prioritised by Defra, Natural England, the Environment Agency and other stakeholders.

Defra launched a “Catchment Based Approach” under the WFD in 2011 which includes catchment pilots trialling new forms of stakeholder engagement and catchment-based planning and delivery. The catchment pilots present an opportunity to embed a number of biodiversity and landscape objectives in catchment management plans alongside the implementation of WFD objectives.

The water industry’s periodic review, PR14²⁸, provides an additional driver/opportunity for private sector investment in water-related ecosystem service provision, potentially enhancing delivery through public-funded initiatives such as ES and CSF.

²⁶ POST (2012) “Balancing Nature and Agriculture” POSTNOTE Number 418 September 2012

²⁷ Defra 2010, Mid-Term Evaluation of RDPE

²⁸ The Periodic Review (PR14) is the Ofwat process for setting Water Company price limits for the period 2015 to 2020

5. Analysis of ELS contribution to greening and the potential shape of ELS+

This key section explores how elements of the current ELS could contribute to greening in Pillar 1 (in light of the broad options and principles set out in Section 3) and the potential shape of ELS+ in the future (given the priorities and issues outlined in Section 4).

5.1 Ways for ELS options to contribute to greening

There appear to be two main ways in which ELS options could contribute to greening:

1. Agri-environment style scheme in Pillar 1 – known as “ELS Light”; or
2. Greening by Definition – whereby ELS stays in Pillar 2 but provides automatic entitlement to greening payments for participating farmers

In terms of the linkage to the broad options set out in Section 3.4.1: “ELS light” would build on Options 1-3; and “Greening by Definition” would equate to Option 6. Both approaches would need to demonstrate ‘equivalence’ to the three greening measures proposed.

The two approaches, together with pros and cons, are summarised in Tables 5 and 6 below. This data is based on greening scenarios recently produced by Defra²⁹.

Policy	Agri-environmental style scheme in Pillar 1 – “ELS Light”
Description	Annualised agri-environment scheme in Pillar 1, equivalent to the three greening measures, thereby embedding some Pillar 2 broad and shallow practices as a universal Pillar 1 requirement.
Pros	<ul style="list-style-type: none"> • Potential to deliver more effective environmental outcomes than straightforward greening measures, as they would be tailored to the situation in England. • Retains greening funds in Pillar 1 which may be more acceptable politically
Cons	<ul style="list-style-type: none"> • Potential risk to guaranteeing environmental benefits in annualised rather than a contractual scheme • Transitional issues for current AES agreement holders • Complexity over determining the baseline for new Pillar 2 schemes (as with other options) • Risk of lack of equivalence of level playing field between Member States • Adverse impact on ES schemes and in particular the uplands funding stream
Affordability	<ul style="list-style-type: none"> • No co-finance required under Pillar 1 • Policy rationale for ELS could be revisited; could create significant budgetary ‘headroom’ in uncertain Pillar 2 allocation
Deliverability	<ul style="list-style-type: none"> • Significant increase in potential number of applicants (>100,000 SPS claimants), compared to those currently in ELS (c.40,000) • Without changes to IACS, would require applicants making an annual declaration of all land with features clearly measured and located. This would be high risk in terms of administration, compliance and control with >100,000 applicants • Complex controls and inspection regime (IACS) • If ELS light is very different to ELS, then could lose familiarity with scheme • Likely increased burden placed on applicants, and risk of disallowance • If mix of options to choose from, this could increase delivery complexity rather than decrease it • Resourcing issues around peaks and troughs in annual delivery cycle • Increase in complexity and volume of mapping requirements
Controls	<ul style="list-style-type: none"> • IACS i.e. annual mapping, 100% administrative checks and 5% on-farm inspections

²⁹ Defra (2012) Greening scenarios. Circulated at a CAP Greening Workshop held on 5 October 2012

Potential mitigation	<ul style="list-style-type: none"> Amendment to finance and control regulation, so greening is subject to same controls as cross compliance e.g. no maps, declaration, 1% inspections; or agree greening is excluded from IACS mapping requirements (although an investment in mapping all features on farmland now could save delivery costs later) Negotiate 2-3 year transition period to implement greening Introduce thresholds /alter minimum claim to exclude smaller farms
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Source: adapted from Defra (2012)

Table 5 – Agri-environmental style scheme in Pillar 1 – “ELS Light”

Policy	Greening by definition (GBD)
Description	Extends automatic entitlement to greening payments to farmers in ES and potentially other environmental certification schemes
Pros	<ul style="list-style-type: none"> Commission’s three greening measures raises the baseline for ES (only options that go beyond those that are equivalent to the Commission’s three measures would be paid for) Avoiding double funding ensures financial additionality (payment rates in ES would have to be adjusted to take account of greening requirements in Pillar 1) Allows for continued targeting of most beneficial options within ELS Allows farmers in ES to fulfil greening requirements, particularly the EFA Recognises environmental value of ES and efforts of farmers who have taken them up Could incentivise uptake of ES
Cons	<ul style="list-style-type: none"> If double funding were permitted, it would secure no additional environmental benefit and effectively increase the costs of the schemes Not a complete solution as not all farmers will be GBD (in ES), so a parallel scheme will be required
Affordability	<ul style="list-style-type: none"> Difficult to forecast would be the balance between level of overall ELS uptake and level of delivery beyond greening that would be paid.
Deliverability	<ul style="list-style-type: none"> Important to ensure that AES which qualify as GBD in Member States are all of sufficient environmental merit Impact of extension of IACS to AES is unclear
Controls	<ul style="list-style-type: none"> As per Pillar 1 and Finance and Control Regulation specifications (i.e. IACS etc)
Potential mitigation	<ul style="list-style-type: none"> Need amendment to allow ES to qualify as GBD which it currently does not Farm Environment Records considered to be sufficient to meet IACS mapping standards

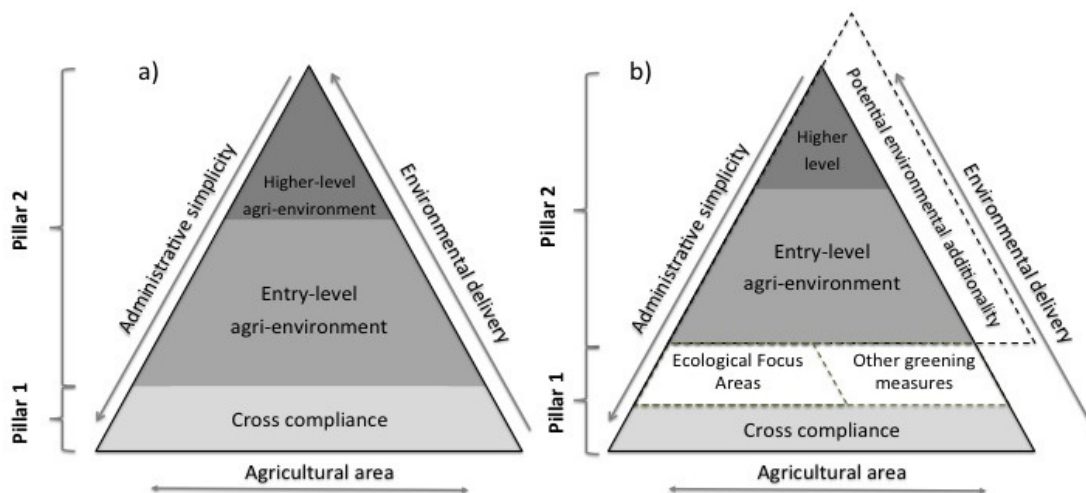
Source: adapted from Defra (2012)

Table 6 – Greening by Definition

Participants at the Down Ampney workshop highlighted the importance of recognising the environmental contribution already made by farmers under existing ELS agreements in order to encourage them and support future agri-environment uptake. This is an important argument in favour of the Green by Definition (GBD) approach.

Another suggestion, made at the workshop, to get around the complexity of meshing ELS into greening, would be to find a way of avoiding any overlap between the type of management undertaken through greening and that through ELS. In other words, ELS would continue (subject to evolution under ELS+), with greening covering different elements on the ground. This idea was not explored further, but there might be some parallels here with Defra’s “active management of EFAs” scenario.

Whichever approach is taken, it is helpful to illustrate how the current and proposed CAP measures and how greening measures – in broad terms - fit in, see Figure 1. This diagram shows the increase in the environmental baseline provided through Pillar 1 and the additional headroom (freeing up of resources) to deliver more environmental benefits through ELS and HLS as long as double funding is not permitted.



Source: Allen et al (2012)

Figure 1: Conceptual relationship between greening and current CAP measures

5.2 ELS options potentially eligible for greening

Drawing on the previous sections, it is possible to identify the existing ELS options which might be eligible for greening under the approaches outlined above (putting aside, for the purposes of this discussion, the possibility of designing out any overlap between greening and ELS).

Two important exemptions need to be considered first:

- Organic producers will be classified as GBD and exempt from the greening measures³⁰. However it is clear now that while the payments for organic conversion and production would be unaffected, payments for additional environmental management under agri-environment schemes would still have greening measures as a baseline due to their common environmental rationale³¹. OELS covers both types of payment, so this would imply that OELS options (excluding, potentially, the organic conversion payments and organic management supplement) would be treated in the same way as ELS and UELS payments. In future a separate organic scheme could be developed³² mirroring the separate measure envisaged by the Commission under the draft EAFRD regulations³³. Note, to avoid confusion, we focus on ELS and UELS options only during this discussion.
- Small farmers participating in any Small Farmers Scheme as defined by the draft regulations will also be exempt from greening requirements given the potential impact on the economy of such farms of following greening requirements. No such scheme presently exists in England. However, if it is implemented, it would only

³⁰ As they are considered to already provide benefits to climate and environment through the actions required as part of organic farming.

³¹ See European Commission (2012) CAP Reform Fiche No 17: Linkages between Pillar I and II and new baseline for agri-environmental-climatic measures, Brussels, and IEEP (2012) Principles of Double Funding briefing for LUPG.

³² Discussion at the workshop suggested that a separate organic scheme may be favoured by some organic producers.

³³ COM(2011)627/3

apply to very small holdings (up to 3 ha or so) and probably a relatively small number of ELS agreement holders³⁴.

Drawing on the Commission’s suggestion to widen the categories of farms which are GBD to include certain certification schemes, it is possible that other types of farms might be regarded exempt, for example, LEAF Marque farms³⁵.

5.2.1 Ecological focus areas

The draft regulations suggest EFAs will apply to arable and permanent cropland only, excluding permanent grassland. They then go on to provide an illustrative list of the types of environmental feature that could form part of an EFA (Article 32(1)). These include: land left fallow; terraces, landscape features and afforested areas. In due course, it can be expected that qualifying features will be defined more closely by the Commission or Member States, however this will be in part dictated by (SPS) eligibility rules unless exemptions are made through delegated acts.

A study by IEEP³⁶ on maximising the environmental benefits of EFAs suggests potential types of EFA, see Table 7. It is assumed that hedgerows (and other boundary features) will be included despite the difference between Pillar 1 and Pillar 2 eligibility criteria.

Location	Traditional farmland features ³⁷	Other features
Field edge	<ul style="list-style-type: none"> Hedgerows Stone walls (including terrace walls) Ditches Banks Field corners 	<ul style="list-style-type: none"> Grass buffer strips Wildlife strips, seed mixes and conservation headlands
In field	<ul style="list-style-type: none"> Terraces Archaeological features Ponds Trees: single, lines, groups** Fallow (part and whole field) 	<ul style="list-style-type: none"> Skylark plots Beetle banks Game bird areas Wet areas
Outside cultivated areas	<ul style="list-style-type: none"> Certain afforested land* Small areas of woodland Restored and recreated habitats 	

* the current proposal indicates EAFRD-assisted new afforestation on previously agricultural land would be eligible, presumably because of policy continuity / coherence concerns
 ** may also be found at the field edge

Source: Allen et al (2012)

Table 7 - Potential types of EFA

This would suggest that ELS options covering boundary features, tree and woodland, buffer strips and arable land options might be eligible for greening. In addition, some historic environment options and some protecting soil and water options might also be eligible. These options would include those (e.g. buffer strips) on intensive grassland provided they fall outside the definition of permanent grassland (the alternative is that

³⁴ To provide an indication of numbers, there were 9,181 commercial holdings under 5ha in size (8.7% of total number of holdings) according to the Defra June Survey 2010.

³⁵ That is those farms which care for the environment and are accredited by the LEAF Marque assurance scheme.

³⁶ Allen B, Buckwell A, Baldock D and Menadue H (2012) Maximising environmental benefits through ecological focus areas. Institute for European Environmental Policy, UK.

³⁷ The term ‘farmland features’ is used to describe those landscape features that are, or were, part of traditional farming systems across the EU. The two terms are used interchangeably throughout the report.

they qualify for greening under the maintaining permanent grassland measure). A small number of UELS options may also be eligible including compulsory options for upland grassland & arable, and some boundary options (on or adjoining arable land).

A summary of potentially eligible ELS/UELS options grouped by greening measure is set out in Table 8. More detailed option-by-option versions are set out in Annexes 4 and 5.

Ecological Focus Areas
Boundary feature options including hedgerow, hedgebank, ditch, stone wall and earth bank management
Trees and woodland options including in-field trees, woodland fences and edges, hedgerow trees and hedgerow buffer strips
Historic and landscape feature options (some) including those relating to taking out of cultivation, minimum till and scrub management on archaeological features on arable land.
Buffer strip options including 2, 4 and 6m buffer strips and buffering in-field ponds on arable land.
Arable land options including field corners, wild bird seed and nectar flower mixture, overwintered stubbles, beetle banks, skylark plots and uncropped/unharvested headlands and margins
Protecting soil and water options (some) including in-field grass areas and 12m buffer strips
Maintaining permanent grassland
Grassland outside the Severely Disadvantaged Area (SDA) options including field corners, low input, very low input and rush pastures
Grassland inside the SDA options including field corners, low input, very low input and rush pastures
Upland grassland and moorland options under UELS including rough grazing
Crop diversity
Encouraging a range of crop types options including undersown spring cereals and cereals for whole-crop silage and stubble ²
Protecting soil and water options (some) including winter cover crops and possibly maize crop options

Table 8 – Potential eligibility of ELS options for different types of greening measure under Pillar 1

5.2.2 Maintaining permanent grassland

The draft regulations (Article 31(1) of COM(2011)625/3) refer to maintaining permanent grassland, the definition of which has been broadened and clarified to mean “*real permanent grassland i.e. those that are out of any crop rotation*” and “*surfaces where non-herbaceous species are predominant*”³⁸, which can be taken to include rush pasture, heather etc.

This would suggest that ELS options covering permanent grassland, rush pasture, rough grazing and moorland (inside and outside the SDA) might be eligible for greening. Mixed stocking and cattle grazing (under UELS) options, however, could be considered over and above the greening requirement.

³⁸ European Commission’s concept paper on greening for the May 2012 Agricultural Council

A key issue in respect of permanent grassland is whether ELS management is over and above the 'maintenance' specified by the draft regulations. This aspect is considered separately below, in Section 5.3.1, as it also applies to other greening measures.

5.2.3 Crop diversity

The draft regulations refer to a requirement for three different crops on arable land (where such land is not entirely used for grass production, fallow or crops under water) (Article 30(1) of COM(2011)625/3). There is an exemption from this requirement if arable land on a farm covers less than 3ha and it seems likely that this threshold will be increased. Farmers with a high proportion of the holding in grassland are also likely to be exempted.

The ELS options which might be eligible for greening under this measure would be the two options intended to encourage a range of crops: undersown spring cereals; and cereals for whole-crop silage. ELS options relating to wild bird seed mixture and nectar flower mixture might also qualify provided each 'crop' amounts to at least 5% of the arable land on farm. The ELS 'winter cover crop' option could potentially also qualify, with the same caveat.

5.3 ELS options in greening – key issues

5.3.1 Management requirements under greening and ELS+

A key issue in incorporating ELS options into greening, however this is done, relates to the level of management under ELS compared to that required or desired under greening.

There are both principles and practicalities at issue here

1. While there is a desire to deliver environmental benefits and raise the environmental baseline provided by the CAP through green payments, there is on the other hand an issue of equity for the farmers concerned. What should farmers reasonably be expected to deliver through green payments – in terms of provision and management - and what should be incentivised through Pillar 2 schemes such as ELS+?
2. EFAs, permanent grassland or crop diversity will require some form of basic management in order to deliver the desired environmental benefits; the existence of the features alone will be insufficient. If so, what is the changeover point between 'basic' management under greening, and 'enhanced' management under ELS+?

Looking at the draft regulations:

- EFA does not at present appear to refer to or include positive environmental management although this remains a potential for member states through delegated acts
- Permanent grassland refers only to maintaining the area of grassland not the ecological integrity of the land.
- Crop diversity does not refer to management.

Taking buffer strips as an example, an indicative split between basic management under greening only, and enhanced management under ELS+ is illustrated in Table 9.

Buffer strip management prescriptions ³⁹	Greening	ELS+
Establish or maintain grassy strip...either by sowing or, ideally, by natural regeneration....Regular cutting in the first 12-24 months may be needed to control annual weeds	✓	
Do not apply any fertilisers or manures	✓	
Only herbicides to spot-treat or weed-wipe for the control of injurious weeds...or invasive non-native species...	✓	
After the first 12–24 months of your agreement, cut the 3 m next to the crop edge annually after mid-July. Only cut the other 3 m to control woody growth, and no more than once every 2 years (where next to woodland, once every 10 years).	✓ annual cut	✓ tailored cutting regime
Do not use buffer strips for regular vehicular access, turning or storage. There should be no tracks, compacted areas or poaching.	✓	
Supplement to add wildflowers to field corners and buffer strips ⁴⁰		✓

Table 9 – Buffer strip management – under greening and ELS+

A similar split could be provided for other options. With permanent grassland, for example, greening could require maintenance of permanent grassland together with some form of grazing and/or mowing; whereas ELS+ management could include restrictions on the grazing period and type of stock, restrictions on the nature and timing of permitted machinery operations (harrowing, rolling etc.), prohibition on other field operations (e.g. ploughing, cultivating and reseeding) and limits on manure/fertiliser applications etc. (as under current ELS options EK2 and EK3).

5.3.2 Payments under ELS+

Where there is an overlap between options under greening and ELS it can be expected that ELS+ will only pay for additional management and/or an additional area over and above the holding's greening requirement⁴¹. This would be consistent with avoiding double funding, while incentivising farmers to undertake additional management through ELS+. Such payments would be based on income foregone and costs incurred as presently. This would apply whichever approach to greening is taken.

Two sets of points/payment rates might be required: the starting point would be the ELS+ rates at 100%; the second set of figures would be the ELS+ rates at a lower % rate (for those features or management contributing towards the greening requirement). The percentage rate would vary by option, with the discount depending on the basic management required under greening compared to the enhanced management under ELS+⁴².

Note the difference in farmer choice of options under ELS+ depending on the greening measure:

³⁹ Based on ELS Handbook 3rd edition - EE3 6m buffer strips on cultivated land

⁴⁰ Based on EE12 supplement proposed to be introduced in January 2013

⁴¹ See Mark Felton's paper "Green by definition and double funding"

⁴² This would be similar to the differentiation made in the ELS Handbook 1st edition which distinguished between arable options on set-aside land and other land (with the former receiving fewer points per hectare than the latter, given the requirement, at the time, to put land into set-aside under Pillar 1).

- EFA. Farmers would be able to choose whether to deliver (and receive payment for) additional management and/or enter extra land into ELS+ over and above their greening requirement
- Permanent grassland. This greening measure requires the maintenance of all permanent grassland (subject to a derogation to convert up to 5% of the reference area), as such, farmers could only choose to deliver additional management under ELS+, not enter more land.
- Crop diversity. In a similar way, this measure requires farmers to have crop diversity across their arable land, and as such farmers could only choose to deliver additional management relating to crop diversity (e.g. environmentally friendly crops, such as spring cereals) under ELS+, not enter more land.

5.3.3 Upland support

Future upland support in respect of greening and ELS+ requires special consideration for the following reasons.

The Commission's CAP reform proposals include an option for Member States to allocate up to 5% of direct payments in Pillar 1 to Areas with Natural Constraints (ANC), but designated on the basis of bio-physical criteria. In theory, this could mean directing some funding to farmers in the uplands (where these overlap with proposed ANCs), say in the form of a direct payment top-up or similar.

LFA payments in Pillar 2 are also proposed to continue⁴³ In England, the situation is complicated however as there is no separate LFA payment, following the switch from Hill Farm Allowance (HFA) to UELS.

The implications of this for future upland support are uncertain. In theory, LFA/ANC farmers could receive both a Pillar 1 direct payment top-up and a Pillar 2 LFA payment, or just a Pillar 2 LFA payment. With the former option, the value of the Pillar 1 payment top-up would need to be deducted from the Pillar 2 payment⁴⁴. In England, it must be assumed that UELS - as an agri-environment measure - will be treated in the same way as ELS - with some elements contributing to greening, releasing funding for other more targeted upland support via ELS+/HLS in Pillar 2. The alternative might be the re-introduction of a separate LFA/ANC payment to open an additional funding stream to mitigate the effects of natural handicaps, with additional environmental management funded through ELS+.

During the workshop, some upland specific issues relevant to this discussion were identified as follows:

- Much upland farming could effectively be regarded as Green by Definition.
- Upland farms, in particular, deliver a wide range of environmental and other public benefits. However there is a divide between upland and lowland farms, in terms of the benefits delivered and the income received.
- Upland farms have adapted their farming systems to qualify for ELS/UELS and loss of key options to greening could adversely affect the ability of upland farmers to run a functional farm business.

⁴³ Articles 32 and 33 of COM(2011)627/3

⁴⁴ CAP-REFORM Fiche No 21, Areas with constraints, Brussels, 11 May 2012 and IEEP(2012) Principles of Double Funding briefing for LUPG

- There is a continued concern regarding the reduction in grazing livestock numbers in the uplands (particularly since decoupling), associated changes in grazing regimes on upland farms and corresponding impacts on the environment.
- Many upland areas, in particular those with in-bye land, depend on land in both upland and lowland areas.

This all suggests that great care will be needed when reviewing upland support arrangements.

5.3.4 Transitional arrangements

Whichever approach is taken, it would be beneficial to have a smooth, simple transition to a future new arrangement.

During the workshop, it was suggested that existing ELS agreements should continue unchanged until they expire at the end of their current 5 year term. Thereafter, renewal agreements would be entered into under a new ELS+ scheme, taking into account the agreed greening provisions. It was recognised that this might result in short term double funding, but the advantages – including continuing to support the positive environmental management carried out by farmers, and minimising the administrative burden and cost - would outweigh the disadvantages.

5.4 ELS +

This section draws on the previous discussion, in particular section 4.2, in order to scope out what ELS+ could be like and how it could operate.

5.4.1 Aims

The aims of ELS+ would build on the current objectives of ES (set out in Section 4.1) with additional and explicit aims to:

- Encourage and incentivise sustainable farming systems;
- Support climate change mitigation and adaptation (in relation to the natural environment *and* sustainable farming systems);
- Deliver a range of regulating and cultural ecosystem services, including both those with direct agricultural benefit (such as natural resource protection, genetic conservation, pollination and pest control) and others (such as those relating to biodiversity, landscape, historic environment and water quality and quantity, linked to WFD);
- Enhance the environmental benefits currently delivered, particularly through the development of ecological networks and landscape scale working; and
- Improve public and farmer awareness and understanding of sustainable farming and environmental land management.

5.4.2 Principles

It is possible to highlight some principles underpinning ELS+. Ideally, ELS+ would:

- Be open to all farmers;
- Be attractive to farmers - *“it would help my farm look and feel better and help underpin my farm productivity, future farm viability and competitiveness”*;

- Be practical and straightforward to apply for and implement;
- Be designed to deliver environmentally and agriculturally, with evidence based options and management prescriptions proven in the field, and hence with a strong ecological and agronomic rationale;
- Enable farmers to do/deliver more environmentally, and get paid for it. This would be an important departure from ELS as it stands, where farmers do not have this flexibility.
- Be simple and streamlined, fully integrated with other elements of the CAP package including wider rural development measures;
- Build on, and add value to, the cross compliance and greening baseline;
- Promote the triple bottom line – economic, environmental and social;
- Be cost effective for the farmers and administrating authorities;
- Deliver measurable outcomes; and
- Be auditable in accordance with EU rules.

5.4.3 Design

The design of ELS+ would seek to address the issues identified in Section 4.2. It is suggested that the design would include the following:

- The involvement of farmers (and others) in the design of ELS+ from the outset.
- The flexibility for farmers to choose what works for them. This could be from a simple menu of options and/or tailored packages of options designed to address specific objectives in a particular locality⁴⁵ and promote uptake.
- Options or packages of options would ideally link to farming systems as opposed to features alone and could involve some form of (geographical) targeting. The on-farm and wider benefits associated with the options would be specific and transparent (and include environmental, agronomic and practical aspects).
- A seamless means for farmers to complement their greening requirements if they choose to i.e. by undertaking additional management and/or entering an extra area or length of a feature.
- A tiered structure, enabling and incentivising farmers to do more and move ‘up the ladder’. The current two scheme (ELS and HLS) structure could be retained and the gap bridged, or there could be a single, integrated and multi-level scheme. An example of how this might look is shown in Figure 1. There are no doubt other ways to achieve the same end. Note, introducing capital works within ELS+ in a limited way would also help support other RDPE priorities in the form of rural employment and traditional skills.
- An opportunity for farmers to bid for additional funding where they are working collaboratively at a landscape scale, making best use of the co-operation measure proposed under the future EAFRD⁴⁶, for example in relation to commons, cultural landscapes, catchments and ecological networks.
- An application process which enables greening requirements to be calculated from basic farm information, and then provides a range of suitable ELS+ options for the consideration of the farmer, derived from local environmental and other data (e.g. land capability). This could lend itself to a software programme linked to the application.

⁴⁵ This could be county, or landscape area (e.g. North Downs)

⁴⁶ European Agricultural Fund for Rural Development - Article 36 of COM(2011)627/3

- A single mapping/recording process which links greening measures (EFAs, permanent grassland) and ELS+ options.
- Advice and facilitation that would be available to farmers, to complement the application process and guidance. This could highlight specific options of value in a target area and the opportunity to work collaboratively with other holdings to contribute to landscape scale working, and promote best practice (as with the current ETIP and CFE initiatives).
- Strong links to wider rural development measures which support sustainable competitiveness. Involvement with ELS+ could open the door (or even be a pre-requisite) for access to other funded elements such as:
 - skills development including training, mentoring etc⁴⁷.
 - farm-based infrastructure grants, which could relate to improving resource efficiency, ecosystem service delivery, competitiveness etc. Grants would need appropriate conditions.

One example, suggested during the workshop, might be a grant to support livestock housing and manure storage where this would support environmentally beneficially cattle grazing in upland areas.

- farm business development, including business advice and triple bottom line benchmarking
- co-operation support
- innovation support

This could be delivered in the form of integrated packages of measures to achieve local strategic goals of sustainable competitiveness (along the lines of the “filière” approach which has been successful in a number of Member States)⁴⁸. In this regard, it is worth noting the following statement from Dwyer et al⁴⁸:

“Key to increasing the success of these measures in terms of sustainable competitiveness is to encourage greater partnership in measure design and delivery, between environmental and farming practitioners. The EIP (European Innovation Partnership) for agricultural productivity and sustainability could play a key role here alongside the measures for environmental management, such as agri-environment-climate and organic farming measures, and measures for farm advice, information, knowledge transfer and training”

It is important to re-iterate that there would be a need for integration in both design and implementation to realise the full benefits of this approach.

- A monitoring and enforcement regime which is compatible with EC regulations.

⁴⁷ One would expect training and mentoring in environmental management to be part of the future agri-environment scheme approach, but ELS+ would also open the door to other types of training with more of an agronomic focus.

⁴⁸ Dwyer, J. et al (2012) How to improve the sustainable competitiveness and innovation of the EU agricultural sector. Report for Policy Department B: Structural and Cohesion Policies, European Parliament

A tiered structure for ELS+

A tiered structure would be beneficial, whether or not the current two scheme system is retained, or a single integrated scheme is developed. This would help “bridge the gap” which currently exists between ELS and HLS. Farmers could have access to higher payments through different stages of ELS+. Each stage might be characterised by a payment based on a multiple of the standard payment of £30/ha (say), access to a menu of geographically targeted options and some flexibility in terms of items attracting annual and/or capital payments within the payment budget. If farmers opt for a higher payment (e.g. £90/ha), then they would have access to more money, but would need to select from a shorter list of locally targeted options; this should result in a more effective agreement. This flexible model depends of course on the total budget available and a means of effectively managing the ELS+ budget.

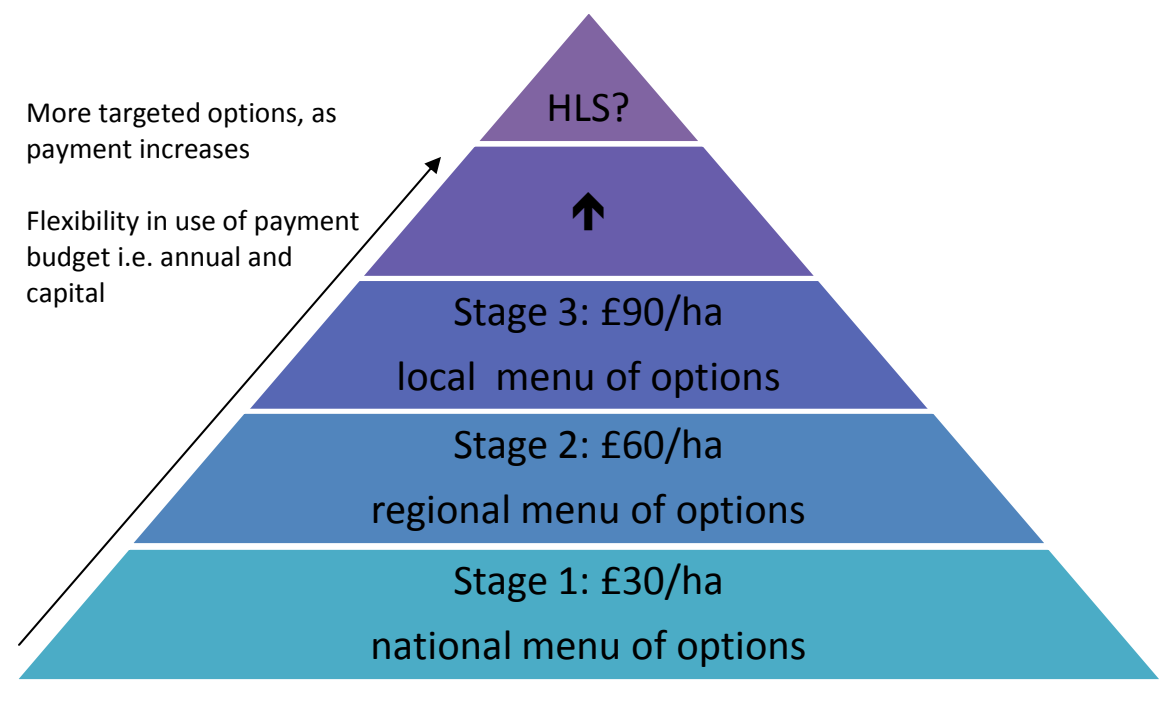


Figure 2: A tiered structure for ELS+

5.4.4 Options

ELS+ has much to offer in terms of new options, enhancements to existing options and greater geographical targeting of options (to deliver the right ecosystem services in the right place for agriculture).

Ideally, the starting point would be the farming system(s) and priorities in the locality (in line with national/regional objectives and priorities). Suitable options and bundles/packages of options could then be developed. Farmers would be involved and the public would be engaged.

Many options would be multi-functional, delivering a range of farming and environmental benefits, however broad categories of new options might include the following:

Sustainable agricultural production

For example, options relating to:

- Soil formation, nutrient cycling, carbon sequestration, water regulation and water purification. Existing options could be extended to include building soil organic matter, improving soil structure and fertility building.

One suggestion made during the workshop was a close link between the Soil Protection Review under Pillar 1, which identifies soil-related issues, and ELS+ options under Pillar 2, which could help deliver soil-related enhancements.

- Genetic conservation, including traditional crop varieties and traditional breeds of livestock.
- Closed livestock systems, which link to land capability, reduced inputs and animal health and welfare.
- Mixed farming systems - encompassing arable, livestock enterprises and woodland/forestry⁴⁹ - which would be beneficial for biodiversity, landscape, water quality, flood management, nutrient management etc.
- Pest regulation, supporting natural enemies of pest species and weed control.
- Pollination

Climate change mitigation and adaptation:

For example, options relating to:

- Carbon retention and sequestration⁵⁰
- Greenhouse gas emission reduction (such as 'min till')
- Good soil and water management, provision of shade/shelter and other means of adaptation

Ecological networks and landscape scale working

For example, options which:

- Link existing habitats and improving connectivity throughout the landscape
- Reduce the intensity of management between existing habitats
- Support the movement of species
- Support collaborative action between neighbouring or near-neighbour land managers. This could be incentivised through additional points.

⁴⁹ In this context, consideration should also be given to how ELS+ would link to the England Woodland Grant Scheme

⁵⁰ See Environmental Stewardship and climate change mitigation. Natural England Technical Information Note TIN107

Knowledge transfer and public education

For example, options/points available for:

- Building farmer knowledge, interest and ownership
- Demonstrating good practice to others
- Engaging with and educating the local community

In addition to the above, it could be anticipated that the following would be available:

High priority options

High priority options are currently defined as those occurring in current ELS options bundles⁵¹ which promote: cleaner water and healthier soil; farmland birds; farm wildlife; and historic environment. It is anticipated that these would continue, subject to any subsequent amendments to reflect changing priorities and higher points allocations in order to attract uptake (a continuation of the tactic being used following the MESME project). It is also envisaged that the five new options due to be introduced in January 2013 would be available under ELS+.

Greening “top-ups”

These could deliver enhanced management and/or more area/length of a particular feature under management. These “top-ups” could be limited to the delivery of high priority options only.

In certain circumstances, HLS-type options could be available under ELS+ to address specific priorities in geographically targeted areas.

5.4.5 Budget

A key issue is the scale of the budget that might be available under ELS+. There is huge uncertainty with this as it dependent on a host of factors including:

- the EU budget (Multiannual Financial Framework) currently under negotiation;
- the CAP budget and allocation between Pillar 1 and 2 which is unlikely to be known until Spring 2013 at the earliest;
- the application and implementation of the CAP package by the UK, including the greening approach used;
- the RDPE budget for the new programme period 2014-2020, including the proportion of funds agreed to be transferred between Pillar 1 and Pillar 2, levels of co-funding agreed nationally for EAFRD funding and decisions on the distribution of funds between measures;
- the value attached to the ELS elements counting towards greening, and hence saved from the current ES budget.

There is significant pressure to reduce EU and CAP budgets, and it appears highly likely that this will result in a reduced budget for the new RDPE, and in turn ES and ELS+, from 2014 onwards. There is understood to be no predetermined ‘ring-fenced’ budget for agri-environment in England for the 2014-2020 period beyond the financing required to honour agri-environment agreements that continue beyond 2013 (and no minimum

⁵¹ See http://www.naturalengland.gov.uk/Images/els-priority-options_tcm6-23944.pdf and http://www.naturalengland.gov.uk/Images/els-priority-options-uplands_tcm6-23945.pdf

spend requirement for environmental measures in the legislative texts of the proposed EAFRD regulations⁵²).

It is impossible to estimate an indicative budget for ELS+, given the uncertainties and the limited scope of this research. While a proportion of the ELS 'budget'⁵³ of £165m per annum could be saved by transferring some ELS elements into greening⁵⁴, there is no guarantee how much of this saving might be available for more ambitious and beneficial options under ELS+ (any money saved could go to any part of the RDPE) nor any indication of the total budget which might be available for ELS+. It is worth noting that the greening approach used – ELS Light or Greening by Definition – is also likely to have an impact on the ELS+ budget available and how this might be used⁵⁵.

Modulation was discussed during the workshop and the issue of transfers between both Pillars of the CAP remains a contentious issue in terms of the proportion of funds that England should transfer from Pillar 1 to Pillar 2 in the future. One side argue that it would be difficult for the Government to justify voluntary transfers to 'plug gaps' in ELS+ caused by reducing budgets, given the 30% of Direct Payments already allocated to greening under Pillar 1, and that doing so would undermine competitiveness. Another group point out that the environment underpins farming and that long-term competitiveness is fundamentally dependant on ensuring better environmental management and achieving enhanced delivery of environmental public goods, and this should be supported by ELS+.

The transfer of funds between Pillars also remains a contentious issue of the current reform negotiations. Transfers will no longer be compulsory for Member States, as has been the case in the current programming period, and it is proposed that transfers will be possible in both directions (i.e. from Pillar 1 to Pillar 2 as currently, but also from Pillar 2 to Pillar 1). The levels of transfers that Member States could apply are part of the negotiations on the MFF and are still subject to change.

Budgetary pressures faced by most Member States as a result of the current economic situation are influencing the current CAP negotiations and discussions on the structure of RDPs at the national and regional levels. The design and funding of any future agri-environment scheme will need to take into account both the revised budgetary position and the approach to greening. Given that evidence suggests that the costs of meeting England's environmental needs associated with agricultural land far outweigh current ES funding, if greening leads to a saving in current agri-environment expenditure⁵⁶ this should be channelled back into the agri-environment schemes allowing them to deliver more for the environment to underpin a more sustainable and competitive agriculture sector.

⁵² Although not legally binding, the recitals of the proposed EAFRD regulations state that Member States should not reduce the level of commitments to achieving environmental outcomes in the next programming period and should commit at least 25% of the EAFRD budget to climate change mitigation and adaptation and land management through three measures – Areas of Natural Constraint, agri-environment-climate and organic farming

⁵³ There is no separate, formal budget for ELS. The figure shown represents current expenditure on ELS within the wider ES scheme.

⁵⁴ It is worth noting that 19 out of 20 top ELS options in terms of total points under agreement would be potentially eligible for greening, see Annex 3.

⁵⁵ For example, by allowing Greening by definition, this may potentially create a rush for new entrants to join ELS, which could quickly exhaust the budget leaving limited or no room for more ambitious and beneficial options.

⁵⁶ This will need to be measured in both economic and environmental terms.

5.5 Impacts of greening and ELS+ on farm

The impacts of greening requirements and ELS+ are likely to vary from farm to farm, dependent on type, size and system of production. Indicative impacts on some of the main farm types are outlined in Table 10. Organic farms, and potentially small farms, would be unaffected by greening.

Farm type	Ecological Focus Area	Maintaining permanent pasture	Crop diversity	ELS+	Farm business impacts/opportunities (from integrated approach to greening and ELS+)
Large arable farms	Yes. However large arable farms likely to have buffer strips and corners, and be engaged with ELS arable options, which could count towards EFA. General cropping farms may have more difficulty.	No	Yes. This may affect some farms on a simple cereals / oilseed rape rotation. Could require 3 rd crop, but rules could permit wild bird mix as crop?	Popular boundary, buffer strip and arable options would be affected. Payment would be reduced to reflect enhanced management only. Opportunities to utilise new ELS+ arable options	Improved crop productivity, resource efficiency, and resilience. Reduced costs and potential to maintain/increased payment. Enhanced competitiveness. Would also underpin assurance/retailer schemes.
Intensive dairy farms	Yes. Temporary grass and fodder crops would count as 'arable' so EFA applies. Could affect farms particularly where limited range of eligible features on 'arable' area.	Yes, assuming some permanent grassland. Reduced flexibility at farm-level in terms of conversion to temporary grassland (up to 5% only).	Yes. If temporary grass and forage maize is grown, this may require a 3 rd crop.	Uptake of ELS by dairy farms has been more limited than other sectors. Greening could make ELS+ uptake difficult. Opportunities to utilise new ELS+ options, esp. rel. to nutrient use, soil and water.	Improved grass/forage crop productivity and yield, resource efficiency, and resilience. Reduced costs and potential to maintain/enhance payment. Enhanced competitiveness. Would also underpin assurance/retailer schemes.
Predominantly grazing livestock and mixed farms	Yes. Could affect these farms disproportionately due to possibility of limited range of eligible features on arable areas of holdings. Some farms may opt to become all-grass to avoid this obligation.	Yes. Reduced flexibility at farm-level in terms of conversion of permanent grassland (up to 5% only). Also likely to apply to moorland.	Yes. As with EFA, requirement for multiple crops could disproportionately affect these farms as arable area could be small.	Popular options EK2, EK3, EL2 and EL3 affected, also boundary options and UX2 and UX3. Payment would be reduced to reflect enhanced management only. Opportunities to utilise new ELS+ options	Mixed farming systems could be sustained via ELS+. Improved productivity, resource efficiency and resilience. Reduced costs and potential for increased payment. Enhanced competitiveness. Would also underpin assurance/retailer schemes.
Permanent grassland livestock farms	n/a	Yes. Reduced flexibility at farm-level in terms of conversion of permanent grassland (up to 5% only). Also likely to apply to moorland.	n/a	Popular options EK2, EK3, EL2 and EL3 affected, also boundary options and UX2 and UX3. Payment would be reduced to reflect enhanced management only. Opportunities to utilise new ELS+ options	Improved productivity, resource efficiency and resilience. Reduced costs and potential for increased payment. Enhanced competitiveness. Would also underpin assurance/retailer schemes.

Table 10: Indicative impacts of greening and ELS+ on different farm types⁵⁷

⁵⁷ Derived from: Allen B, Buckwell A, Baldock D and Menadue H (2012) Maximising environmental benefits through ecological focus areas. Institute for European Environmental Policy, UK; and European Commission (2010) The CAP Towards 2020: Assessment of alternative policy options. Final Report and Annex 2: Greening of CAP. Brussels, Belgium.

6. Conclusions

The future of the CAP remains unclear. Pillar 1 greening proposals have caused and continue to cause much debate in the current reforms. The issues associated with greening are complex and relate to funding, eligibility and fit with existing CAP measures. In whatever form the greening of direct payments is introduced, they will present both challenges and opportunities for agri-environment schemes in England, and the farmers participating in them.

The challenges include the greening approach taken, the greening measures used, the ELS options selected to contribute to greening (if any), the impact on ES payment rates and ultimately the (differential) impacts on farm businesses. The transitional arrangements, whether to continue existing ELS agreements for their full period, or make changes mid-term, will also need careful consideration.

Potentially the greatest challenge to any future agri-environment scheme, however, comes in the form of a significant potential for a reduced budget for the CAP 2014-2020 which will affect both Pillar 1 and Pillar 2 budgets in England, including the agri-environment scheme budget. The agri-environment budget will be particularly affected given the distribution of the current Pillar 2 budget.

Despite these challenges, there will be opportunities. As a result of greening, the environmental baseline provided through Pillar 1 should be raised to some extent. This presents an opportunity to improve scheme coherence within Environmental Stewardship and to refocus and enhance ELS. This in turn should enable issues, gaps and future priorities to be addressed through a successor scheme, such as ELS+, subject to the available budget.

In order to meet these aims, a future ELS+ scheme should benefit both the farmed environment and sustainable farming. It should build on the achievements of ELS to date, and focus on and incentivise sustainable agricultural production and the delivery of a broader range of ecosystem services. In particular it should support climate change mitigation and adaptation, encourage landscape scale working and ecological networks, and address specific priorities such as compliance with WFD. Lastly, ELS+ should improve awareness, interest and ownership of the scheme amongst farmers and increase public understanding.

The ability of the scheme to deliver these goals will depend on good design, implementation and sufficient budget. Farmer and wider stakeholder involvement will be vital to help shape the scheme, including its structure and how it is tiered), identify national and local priorities, put in place the right packages of options, integrate them with other rural development measures, and help to keep things simple, practical and attractive. This should ensure good uptake and delivery of the intended outcomes. The future arrangements for upland farms will require particularly careful consideration given their special circumstances and contribution to public goods.

The level of funding available for ELS+ will clearly be critical to secure the level of uptake and management required to deliver the objectives of the scheme. Regardless of the budget, priorities will need to be identified and funds allocated to achieve these objectives in the most efficient way. Advice and training will be required to ensure farmers have the skills and knowledge to implement ELS+ effectively and to support them to develop more sustainable farming systems and approaches.

In summary, this report has sought to identify areas of equivalence within existing agri-environment measures that could form part of or wholly contribute to, Pillar 1 greening, via ELS Light or Greening by Definition. It has also aimed to highlight the opportunities for ELS+ under a revised RDPE.

Based on the research set out in this report we are pleased to make the following recommendations for the consideration of Defra and Natural England policymakers when assessing the most effective means of implementing Pillar 1 greening and the redesign of Environmental Stewardship:

- Continue existing ELS agreements without requiring changes to contracts and payment rates until their natural expiration to ensure a smooth transition to the new arrangements and optimise future uptake of ELS+
- Assess those ELS options which are potentially eligible for greening in more detail including: boundary features, trees and woodland, buffer strips, arable land and some historic environment options and protecting soil and water options (EFA); permanent grassland, rush pasture, rough grazing and moorland (maintaining permanent grassland); and encouraging a range of crop types (crop diversification).
- Ensure ELS+ addresses both environmental and sustainable farming priorities to encourage the delivery of a range of ecosystem services;
- Involve farmers and other stakeholders in the design and delivery of ELS+;
- Ensure that the options and architecture of any future ELS+ builds on experience of previous schemes, research and scientific evidence;
- Develop a simple and streamlined approach in the spirit of ELS but with enhancements (such as targeting and tailoring) to deliver the level of environmental management appropriate to the scheme;
- Consider fully the range of environments and farming systems present in England, their unique qualities and needs;
- Use the new flexibility envisaged within the proposed EAFRD regulation to integrate ELS+ with other rural development measures to enhance its effectiveness in particularly by using advice, investment and cooperative measures;
- Ensure that the future ELS+ scheme builds on the raised baseline provided by Pillar 1 greening, however this is realised, to ensure environmental additionality;
- Secure a level of funding for ELS+, which is sufficient to build on and enhance the achievements of ELS to date and use such funds only to deliver public goods where there is a market failure; and
- Consider future environmental needs and sustainability beyond the next programming period, when formulating ELS+.

Annex 1: Additional elements of the Commission’s CAP greening package

Cross compliance

It is proposed to simplify cross compliance rules, strengthen the climate change dimension and ensuring consistency with the provisions of greening and relevant environmental measures offered under rural development.

The number of Statutory Management Requirements (SMR) from 18 to 13 and the number of Good Agricultural and Environmental Condition (GAEC) rules from 15 to 8.

A summary of the cross compliance rules relevant to this research (relating to environment, climate change and good agricultural condition of land) are set out in Table A1 below.

Main issue	Requirement	Standards
Water	SMR1	EC Nitrates Directive (91/676/EEC)
	GAEC1	Establishment of buffer strips along watercourses
	GAEC2	Compliance with authorization procedures for use of water for irrigation...
	GAEC 3	Protection of ground water against pollution
Soil and carbon stock	GAEC4	Minimum soil cover
	GAEC5	Minimum land management reflecting site specific conditions to limit erosion
	GAEC6	Maintenance of soil organic matter level including ban on burning arable stubble
	GAEC7	Protection of wetland and carbon rich soils including a ban on first ploughing
Biodiversity	SMR2	EC Wild Birds Directive (2009/147/EC)
	SMR3	EC Habitats Directive (92/43/EEC)
Landscape minimum level of maintenance	GAEC3	Retention of landscape features, including where appropriate, hedges, ponds, ditches, trees in line, in group or isolated, field margins and terraces, and including a ban on cutting hedges and trees during the bird breeding and rearing season and possible measures for avoiding invasive species and pests

Table A1: Summary of proposed cross compliance rules for environment, climate change and good agricultural condition of land

It is also proposed that the Water Framework Directive & the Sustainable Use of Pesticides Directive will be incorporated into cross-compliance rules.

Rural Development

The current rural development concept of multi-annual schemes designed and co-funded by Member States (or regions) through rural development programmes (RDPs) remains the same. However, instead of 3 axes linked to economic, environmental and social issues with minimum spending requirements for each axis, there will be 6 rural development priorities including the following environmental ones:

4. restoring, preserving & enhancing ecosystems; and
5. promoting resource efficiency & transition to low carbon economy.

Member States / regions will design their RDPs using combinations of measures, drawn from a streamlined menu, in order to meet quantified targets for the priorities, taking into account their own specific needs. At least 25% of rural development expenditure will need to be related to land management and climate change.

A summary of rural development measures particularly relevant to this research are set out in Table A2 below:

Article no.	Measure
15	Knowledge transfer and information actions
16	(Farm) Advisory services, farm management and farm relief services
17	Investments in physical assets
20	Farm and business development
23	Afforestation and creation of woodland
24	Establishment of agro-forestry systems
28	Setting up of producer groups
29	Agri-environment-climate
30	Organic farming
31	Natura 2000 and Water Framework Directive payments
32	Payments to areas facing natural or other specific constraints
36	Co-operation
61	European Innovation Partnership

Table A2: Summary of EAFRD measures particularly relevant to ELS+

It is worth noting:

- Farm Advisory Services would be strengthened to cover climate change mitigation and adaptation and environmental challenges *inter alia*;
- Agri-environment - climate payments would have greater flexibility in contracts and joint contracts linked to adequate training/information;
- Organic farming would have its own new separate measure for greater visibility;
- Areas facing natural & other specific constraints: the delimitation of natural constraint areas would be based on 8 bio-physical criteria; Member States would have flexibility to define up to 10% of their agricultural area for specific constraints to preserve or improve the environment;
- Co-operation might include technological, environmental and commercial co-operation (e.g. pilot projects, joint environmental schemes, short supply chains, development of local markets).
- Innovation would include promoting resource efficiency and the low emission, climate-friendly and resilient development of agriculture, forestry and rural areas;

Annex 2: Details of the proposed amendments and positions in the greening debate

The Luxembourg paper

Luxembourg tabled a paper '*Greening Instruments – menu for Member States within the EU framework*' at the Special Committee on Agriculture, a working group of the Agriculture Council, in April 2012. This set out three routes which it says Member States could choose to apply greening, these can be characterised as follows:

Option A - the agri-environment option. This allows Member States to deploy a percentage (10% is proposed as a nominal figure for discussion) of their Pillar 1 national ceiling to fund 'agro-environmental operations' that are in keeping with rural development priorities 1, 4 and 5 in Pillar 2 and other actions, such as advice and innovation. This could include extending their existing agri-environment schemes.

Option B – a much embellished version of the Commission's proposals. More flexibility is introduced to the Commission's proposal by:

- i. greatly extending the list of farming systems and characteristics which might be deemed to be 'green by definition' alongside organic farming;
- ii. extending the three greening options to 9; and
- iii. limiting any penalties for non-compliance to the 30% greening payment, effectively making the greening voluntary at the individual farm level

Option C - the cross compliance option. This allows Member States to move the Commission's three greening measures into cross compliance, but also proposes to exempt farmers who are deemed to be 'green by definition' from these additional cross compliance elements.

While it was originally intended to make the greening proposals more suited to national conditions and so more effective, it appears that in garnering the support of a broad range of Member States the options set out in the paper could actually undermine the environmental delivery potential of the greening proposals. Concerns have been raised in particular over:

- The suggested reduction in funding for greening (from 30% to 10% of Pillar 1);
- The extension of the 'green by definition' exemption, although an extension to farms with a significant proportion of land in agri-environment schemes could be justified.
- The extended list of greening options which could lead to a watering down of environmental value delivered by greening and difficulty in ensuring the equivalence of options. This would require greater detail in the specification and weighting of options and increased complexity for farmers and administrators alike.

That said, the proposal, particularly Option A could provide opportunities for the UK and other Member States which are committed to developing their agri-environment schemes further.

Commission's 'concept paper' on greening

The Commission produced a 'concept paper' on greening in May 2012 in response to discussions following its earlier published proposals. It made three suggestions:

1. Widening the categories of farms which are 'green by definition' to include farms in agri-environment- climate (AEC) measures and farms in environmental certification schemes, subject to conditions including: coverage of the whole farm; the environmental ambition level exceeds that of greening; and the type of AEC commitment/ certification requirement corresponds to the nature of the greening measure. This is intended to bring about simplification and recognise the environmental contributions farmers already make through these mechanisms.

2. Broadening the definition of permanent grassland to include surfaces where non-herbaceous species are predominant. This is in recognition of the ecological, carbon storage and agricultural value of these areas. In addition, it is suggested that the focus is on 'real' permanent grassland i.e. that not on any crop rotation; this would provide flexibility without losing environmental value.

3. Exempting certain farms from the crop diversification measure, including exempting small farms with more than 3ha of arable land and exempting farms with a high proportion of grassland on their holding. This would reduce the cost/impact of the measure on small, mixed farms in particular, with only marginal decrease in area covered.

The change in the permanent pasture definition has been welcomed. However concerns have also been raised about the changes outlined in the concept paper including:

- How to avoid double funding of the same actions on the same land in the same year, if farms in agri-environment schemes are deemed to be 'green by definition'⁵⁸
- What sort of agri-environment scheme / measure or certification scheme might be deemed 'equivalent'? Does it have to be 'exactly the same' or is it a 'similar action'. If the latter, how do you determine what is 'similar' and will this have to be approved?
- The need not only to maintain the area of permanent pasture, but also to prevent ploughing and reseeded in order to conserve their biodiversity value and avoid release of carbon storage. Other comments include backdating the start of the greening obligation to avoid 'precautionary' ploughing.

European Parliament's rapporteur reports and conference

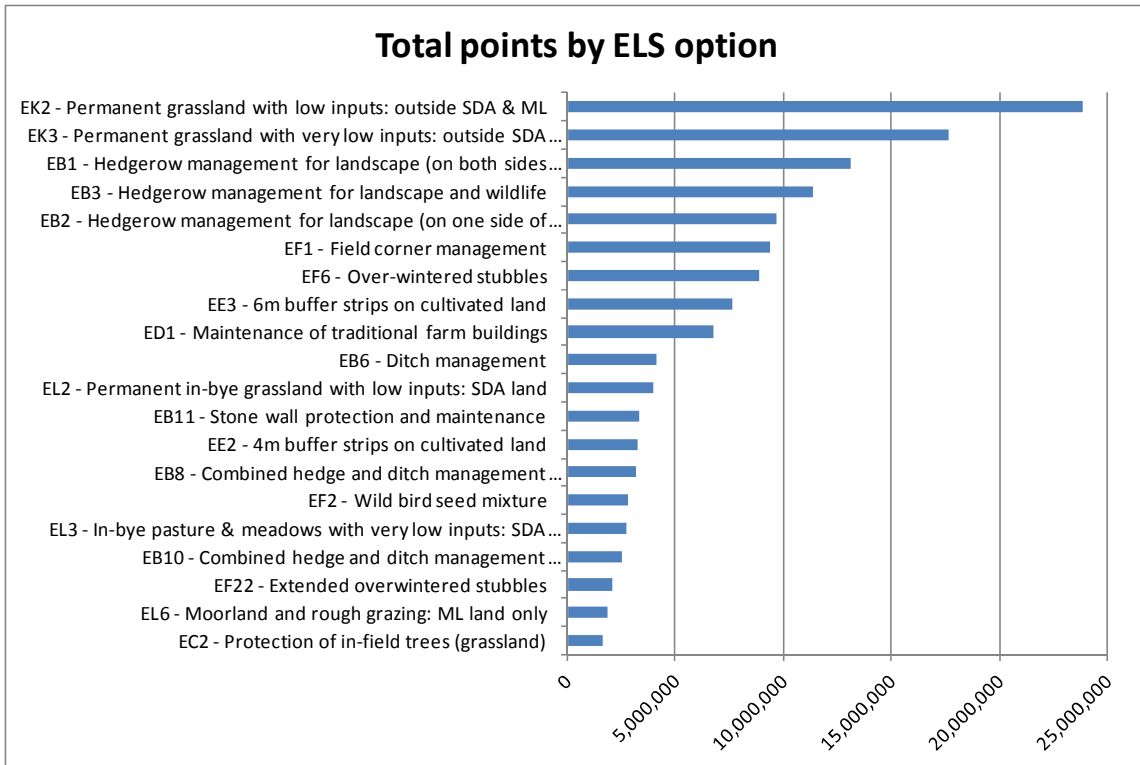
The European Parliament's position is set out in four rapporteur reports and a conference on shaping the future CAP on 20 June 2012. This includes the following key points relevant to greening:

1. Support for widening the categories deemed to be green by definition to include farms which are 'environmentally certified' or those which are in agri-environment schemes (AES) and undertaking similar actions as those required under green direct payments.
2. Breaking the requirement that compliance with the green direct payments should be linked to receipt of the basic payment. This would effectively make the green direct payments voluntary. Instead, it was proposed that any funds for the greening payment that went unspent could be transferred to the agri-environment-climate measure under Pillar Two

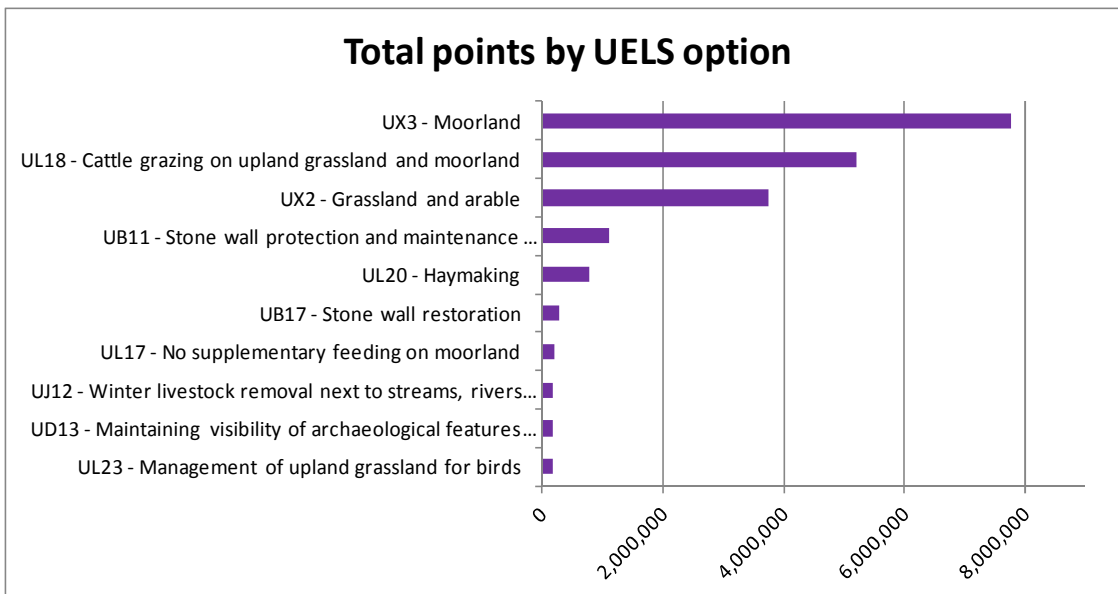
⁵⁸ European Commission (2012) CAP Reform Fiche No 17: Linkages between Pillar I and II and new baseline for agri-environmental-climatic measures, Brussels.

3. Support for a fixed number of compulsory greening measures to avoid 'emptying the measure of meaningful greening in some Member States'. This is in spite of demand for flexibility in defining the greening actions coming from many stakeholders and Member States. Changes to content were suggested including a new permanent crops measure separate from EFAs.
4. Determination not to permit double funding, with Pillar Two environment schemes kept at a level above the Pillar One greening. The need to show the value-added of the additional environmental expenditure.
5. Some support for the idea of farmers co-operating in applying the EFA jointly with other farmers to create joined up areas of habitat, in return, potentially, for a reduction in the EFA requirement to 5% of cropped area, although the problems of controls, sanctions and the need for simplicity was recognised.
6. Support for exempting more farmers from the greening actions, for example those with holdings below 15 ha being exempt from EFAs and farms between 5 and 20 ha only being required to have two (not three) crops under the crop diversification measure.

Annex 3: ELS and UELS – top options by total points



Source: Natural England, October 2012



Source: Natural England, October 2012

ELS – top 20 options by points

Option	Total Points		No. of agreements	
EK2 - Permanent grassland with low inputs: outside SDA & ML	23869768	13.6%	19128	46.0%
EK3 - Permanent grassland with very low inputs: outside SDA & ML	17601762	10.0%	14559	35.0%
EB1 - Hedgerow management for landscape (on both sides of a hedge)	13101229	7.4%	19713	47.4%
EB3 - Hedgerow management for landscape and wildlife	11342541	6.4%	10081	24.2%
EB2 - Hedgerow management for landscape (on one side of a hedge)	9652699	5.5%	23113	55.6%
EF1 - Field corner management	9396896	5.3%	9223	22.2%
EF6 - Over-wintered stubbles	8860654	5.0%	4541	10.9%
EE3 - 6m buffer strips on cultivated land	7604846	4.3%	7476	18.0%
ED1 - Maintenance of traditional farm buildings	6752022	3.8%	7701	18.5%
EB6 - Ditch management	4134051	2.3%	9856	23.7%
EL2 - Permanent in-bye grassland with low inputs: SDA land	3970886	2.3%	3997	9.6%
EB11 - Stone wall protection and maintenance	3327745	1.9%	6331	15.2%
EE2 - 4m buffer strips on cultivated land	3244348	1.8%	4686	11.3%
EB8 - Combined hedge and ditch management (incorporating EB1)	3203117	1.8%	6346	15.3%
EF2 - Wild bird seed mixture	2802758	1.6%	3285	7.9%
EL3 - In-bye pasture & meadows with very low inputs: SDA land	2713663	1.5%	3209	7.7%
EB10 - Combined hedge and ditch management (incorporating EB3)	2514941	1.4%	3680	8.9%
EF22 - Extended overwintered stubbles	2069693	1.2%	748	1.8%
EL6 - Moorland and rough grazing: ML land only	1860233	1.1%	824	2.0%
EC2 - Protection of in-field trees (grassland)	1603935	0.9%	7796	18.8%
		79.3%		
Total points	176,057,774			
Total no. of agreements	41,573			

Source: Natural England, October 2012

UELS – top 10 options by points

Option	Total Points		No. of agreements
UX3 - Moorland	7778960	38.7%	2067
UL18 - Cattle grazing on upland grassland and moorland	5200474	25.9%	2739
UX2 - Grassland and arable	3754137	18.7%	5631
UB11 - Stone wall protection and maintenance on/above the moorland line	1091691	5.4%	1471
UL20 - Haymaking	761820	3.8%	1219
UB17 - Stone wall restoration	276240	1.4%	329
UL17 - No supplementary feeding on moorland	199691	1.0%	240
UJ12 - Winter livestock removal next to streams, rivers and lakes	170176	0.8%	374
UD13 - Maintaining visibility of archaeological features on moorland	168699	0.8%	228
UL23 - Management of upland grassland for birds	159420	0.8%	167
Total points	20,087,073		

Source: Natural England, October 2012

Annex 4 – Potential eligibility of ELS options for greening

Code	Option	Ecological Focus Area	Maintaining Permanent Pasture	Crop diversity
Boundary features				
EB1	Hedgerow management on both sides of a hedge	on arable land		
EB2	Hedgerow management on one side of a hedge	on arable land		
EB3	Enhanced hedgerow management	on arable land		
EB4	Stone-faced hedgebank management on both sides	on arable land		
EB5	Stone-faced hedgebank management on one side	on arable land		
EB6	Ditch management	on arable land		
EB7	Half ditch management	on arable land		
EB8	Combined hedge and ditch management (inc. EB1)	on arable land		
EB9	Combined hedge and ditch management (inc. EB2)	on arable land		
EB10	Combined hedge and ditch management (inc. EB3)	on arable land		
EB11	Stone wall protection and maintenance	on arable land		
EB12	Earth bank management on both sides	on arable land		
EB13	Earth bank management on one side	on arable land		
Trees and woodland				
EC1	Protection of in-field trees on arable land			
EC2	Protection of in-field trees on grassland			
EC3	Maintenance of woodland fences			
EC4	Maintenance of woodland edges	on arable land		
EC23	Establishment of hedgerow trees by tagging	on arable land		
EC24	Hedgerow tree buffer strips on cultivated land			
EC25	Hedgerow buffer strips on grassland			
Historic and landscape features				
ED1	Maintenance of weatherproof traditional farm buildings			
ED2	Take out of cultivation arch. features on cultivated land			
ED3	Reduced-depth, non-inversion cultivation on archaeological features			
ED4	Management of scrub on archaeological features			
ED5	Management of archaeological features on grassland			
Buffer Strips				
EE1	2m buffer strips on cultivated land			

EE2	4m buffer strips on cultivated land			
EE3	6m buffer strips on cultivated land			
EE4	2m buffer strips on intensive grassland	temp. grass.		
EE5	4m buffer strips on intensive grassland	temp. grass.		
EE6	6m buffer strips on intensive grassland	temp. grass.		
EE7	Buffering in-field ponds in improved permanent grassland			
EE8	Buffering in-field ponds in arable land			
EE9	6m buffer strips on cultivated land next to watercourse			
EE10	6m buffer strips on intensive grassland next to watercourse	temp. grass.		
Arable land				
EF1	Management of field corners			
EF2	Wild bird seed mixture			
EF3	Nectar flower mixture			
EF6	Overwintered stubble			
EF7	Beetle banks			
EF8	Skylark plots			
EF9	Unfertilised cereal headlands	?		
EF10	Unharvested cereal headlands			
EF11	Uncropped cultivated margins for rare plants			
EF13	Uncropped cultivated areas for ground-nesting birds on arable land			
EF15	Reduced herbicide cereal crops followed by overwintered stubble	?		
EF22	Extended overwintered stubble			
Encouraging a range of crops				
EG1	Undersown spring cereals			
EG4	Cereals for whole-crop silage followed by overwintered stubble			
Protecting soil and water				
EJ2	Management of maize crops to reduce soil erosion			
EJ5	In-field grass areas to prevent erosion and run-off			
EJ9	12m buffer strips for watercourses on cultivated land			
EJ10	Enhanced management of maize crops to reduce soil erosion and run-off			
EJ11	Maintenance of watercourse fencing			
EJ13	Winter cover crops			
Grassland outside the SDA				

EK1	Take field corners out of management			
EK2	Permanent grassland with low inputs			
EK3	Permanent grassland with very low inputs			
EK4	Managing rush pastures			
Mixed stocking				
EK5	Mixed stocking			
Grassland inside the SDA				
EL1	Take field corners out of management in SDAs			
EL2	Permanent grassland with low inputs in SDAs			
EL3	Permanent grassland with very low inputs in SDAs			
EL4	Managing rush pastures in SDAs			
EL5	Enclosed rough grazing			
EL6	Unenclosed moorland rough grazing			

Annex 5 – Potential eligibility of UELS options for greening

Code	Option	Ecological Focus Area	Maintaining Permanent Pasture	Crop diversity
Compulsory requirements for upland management				
UX1	Moorland commons and shared grazing requirements			
UX2	Upland grassland and arable requirements	on arable land		
UX3	Moorland requirements			
Boundaries and features in the uplands				
UB4	Stone-faced hedgebank management on both sides on or above the Moorland Line			
UB5	Stone-faced hedgebank management on one side on or above the Moorland Line			
UB11	Stone wall protection and maintenance on or above the Moorland Line			
UB12	Earth bank management on both sides on or above the Moorland Line			
UB13	Earth bank management on one side on or above the Moorland Line			
UB14	Hedgerow restoration	on arable land		
UB15	Stone-faced hedgebank restoration	on arable land		
UB16	Earth bank restoration	on arable land		
UB17	Stone wall restoration	on arable land		
Trees and woodland				
UC5	Sheep fencing around small woodlands			
UC22	Woodland livestock exclusion			
Historic and landscape features				
UD12	Maintenance of weatherproof traditional farm buildings in remote locations			
UD13	Maintaining visibility of archaeological features on moorland			
Protecting soils in the uplands				
UJ3	Post and wire fencing along watercourses			
UJ12	Winter livestock removal next to streams, rivers and lakes			
Upland grassland and moorland				
UL17	No supplementary feeding on moorland			
UL18	Cattle grazing on upland grassland and moorland			
UL20	Haymaking			
UL21	No cutting strip within meadows			
UL22	Management of enclosed rough grazing for birds		?	
UL23	Management of upland grassland for birds		?	

Annex 6 – Workshop Participants

Organisation/individual (description/role)
CLA
Cumulus Consultants
Farmer (NT tenant, arable farm, Kent)
Farmer (NT tenant, mixed arable and livestock farm, Oxon)
Game & Wildlife Conservation Trust
IEEP
Independent consultant (farm waste and resources)
Independent adviser (nature conservation, genetic conservation)
National Trust (policy, specialists (agriculture, organic, food, archaeology, nature conservation, soils, water), food and farming advisers)
Natural England
NFU (policy, Campaign for Farmed Environment)
RSPB
The Co-operative Farms (policy, arable operations, farm environment, and farm management)
Wildlife Trusts

Those who were unable to attend but contributed by email:

Farmer (NT tenant, mixed arable and livestock, Surrey)
Farmer (NT tenant, upland, Yorkshire)
TFA