



Department
for Environment
Food & Rural Affairs

Rural Development Programme in England

**Draft Programme, published alongside a
Strategic Environmental Assessment of
the programme**

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Executive Summary

The Government believes that rewarding farmers for the environmental goods they provide is a much better use of taxpayers' money than providing direct subsidy. Transferring funding from Pillar 1 to Pillar 2 increases our ability to deliver improvements in the productivity and longer term competitiveness of UK agriculture and helps grow the rural economy in England.

We have therefore already notified the European Commission that, for England, the Government will, in each year of the CAP period from 2014 to 2019, transfer 12% of the budget from Direct Payments to farmers (Pillar 1) to Rural Development (Pillar 2). With this rate of transfer we will be spending over £3.5bn on the next Rural Development Programme. The cost of meeting our environmental obligations and objectives is more than we can afford to meet through the new Rural Development Programme even with a maximum transfer. Therefore, we will need to ensure that all investments are effectively targeted and deliver high value for public money.

A review will be held in 2016 into the demand for agri-environment schemes and the competitiveness of English agriculture with the intention of moving to a 15% transfer rate in 2018 and 2019, the final two years of the CAP period. Our modelling suggests that, at the aggregate level, a reduction in Pillar 1 funding will have only a small impact on England's agricultural production levels. There is no evidence to suggest that voluntary modulation in the period 2008-12 had an adverse impact on England's farming competitiveness.

Target areas for RDPE investment

We will be spending nearly £3.1bn on the environment over the life of the new programme. This will rise to nearly £3.2bn, the amount we spend in the current programme, if the transfer rate rises to 15% in the last 2 years. We have identified three main areas for support for the Rural Development Programme in 2014-2020. These are:

- **Environment:** Restoring, preserving and enhancing our natural environment;
- **Productivity:** Increasing the competitiveness and efficiency of our farming, forestry and land-based sectors; and
- **Growth:** Delivering rural economic growth.

Environment: Restoring, preserving and enhancing our natural environment

We are committed to enhancing the natural environment and meeting our key environmental commitments, including reversing declines in farmland biodiversity and addressing diffuse water pollution from agriculture and its impacts on rivers, lakes and other water bodies, building on the successes of delivery of Environmental land management in the last two Rural Development Programmes, 2000-2006 and 2007-2013. Funding for restoring, preserving and enhancing the natural environment is vital if we are to meet Biodiversity 2020 goals and the legal requirements of the Habitats and Birds Directives. This will remain our top priority for the Rural Development Programme in

England with spending within the programme re-focused specifically towards the environment via a more targeted scheme. As a result we plan to spend around 87% of the Rural Development Programme budget on the environment, compared with 83% in the current programme.

Productivity: Increasing the competitiveness and efficiency of our farming, forestry and land-based sectors

Average labour productivity in agriculture remains lower than the average productivity rate in the rest of the UK economy. Agricultural productivity and outputs vary substantially across the industry, not only between sectors but within sectors themselves. UK agricultural productivity growth has been consistently poor relative to the US and other OECD countries since the early 1980s.¹

Our proposals for farming, forestry and other land-based sectors are intended to enable businesses to become more productive, efficient and resilient. For this reason, we will focus spending on farming and forestry competitiveness where it will have a tangible impact on farm and forestry business performance, for example helping farmers applying innovation, uptake of technology and knowledge transfer we will help them achieve impact and leave a lasting legacy. This will make up 4% of the new programme, around £140m.

Growth: Delivering rural economic growth

Businesses in rural areas make a substantial contribution to the national economy. In England they generate around 22% of employment and 19% of Gross Value Added (GVA).² However, rural areas face some specific barriers to growth, including lack of access to high speed internet connection, lack of access to skilled workforce and distance to markets, while rural populations face disadvantages including higher house prices, higher fuel poverty and lack of access to key services and local amenities.

With the remaining 13% of the new programme we will be putting a much stronger focus on jobs and growth, with a meaningful role for Local Enterprise Partnerships (LEPs). 5% of the new Programme will be directly available to Local Enterprise Partnerships through the Growth Programme, around £177m. Through their investment strategies LEPs will set out how they want this spent in their rural areas to build knowledge and skills, support new and developing micro and small rural business, invest in small scale renewable and broadband investments and support tourism activities, alongside other European Structural and Investment Funds, such as the European Regional Development Fund (ERDF) and European Social Fund (ESF).

We have allocated this Growth Programme funding to individual LEPs in a fair and equitable way using rural population as the underlying basis, with adjustments to help target the economic challenges in rural areas.

¹ Source: Ball et al (2006) Productivity and Competitiveness in EU and US Agriculture, DEFRA, USDA

² Statistical Digest for Rural England, Defra. 2013

LEADER: helping to deliver jobs and growth in rural areas

The bottom-up, community led, LEADER approach will work alongside Growth Programme funds, with a strengthened contribution of funds invested through LEADER to delivering jobs and growth in rural areas. The total budget for LEADER will be about 4% of the new programme, around £140m.

Areas of scheme focus

The focus of the schemes we will be introducing in the new programme is as follows:

Environment

We will be introducing a new Environmental Land Management scheme. This will be a multi-objective scheme contributing to the delivery of outcomes on biodiversity, soil and water issues; historic environment; landscape; genetic conservation and educational access.

This will consist of:

- A **Priority sites offer**: multi annual agreements for farmers and land-owners with a main focus on designated and priority sites
- A **Priority areas offer**: multi annual agreements for farmers and land-owners with a focus on delivering change at a landscape scale
- A **Universal small scale grants offer**, either tied to a multi annual agreement or a stand-alone grant with a clear environmental benefit

Productivity

We will be introducing a farming and forestry productivity scheme. This will be focused on five main areas:

- **Innovation, technology diffusion and knowledge transfer**: to help translate new technology into practice and provide training and advice.
- **Farm competitiveness and supply chain relationships**: supporting better business practice and improving awareness of supply chains.
- **Woodland Enterprise and Supply Chain**: supporting supply chain activity for woodfuel and venison.
- **Resource efficiency and management**: supporting improved water storage, rainwater harvesting, irrigation, drainage and water recycling and improved slurry use and storage.
- **Animal Health and Welfare**: supporting better awareness of risk management and biosecurity, animal husbandry and training.

Growth:

Local Enterprise Partnerships will set out their priorities for spend in rural areas based on the following priorities:

- **Building knowledge and skills in rural areas:** support for business related skills development and advisory services;
- **Funding new and developing micro, small and medium sized rural business:** supporting the creation and development of micro and small sized rural businesses, including new or improved business processes;
- **Funding small scale renewable and broadband investments:** capital grant support for investment in broadband infrastructure in hard to reach locations and help to overcome barriers to getting community energy schemes off the ground;
- **Support for tourism activities in rural areas:** activities which support co-operation at a local level around the destination offer and product development.

LEADER:

A new National Delivery Framework will set out the main priorities for LEADER groups in the new programme. The main priorities for investment through LEADER will be:

- Support for micro and small enterprises and farm diversification
- Support for increasing farm productivity
- Support for rural tourism
- Support for increasing forestry productivity
- Provision of rural services
- Support for cultural and heritage activity

Structure of the main document

This document is a shortened version of the final Programme document we will submit to the European Commission as our programme for the 2014-2020 period. The document we will submit to the Commission is a technical document and is not in an easy to read format. This document is our draft programme, and is being published alongside a Strategic Environmental Assessment of this draft. It follows a clear structure, based on Commission guidance and following particular stages.

First, the “current situation” in rural England is set out under **Chapter 5**. This provides the context via key indicators within which the programme sits, alongside a SWOT analysis which helps us to decide on priorities, objectives and measures to be undertaken and demonstrates where best to focus Rural Development funding. **Chapter 6** then identifies and justifies the main needs the programme will address, setting out also where other funding sources or initiatives will help support this. **Chapter 7** sets out the proposed Rural Development Programme schemes and measures we will implement in England. Details of budgets and the main indicators used to measure progress against the programme at EU level are provided in **Annexes A** and **B**.

1 Background

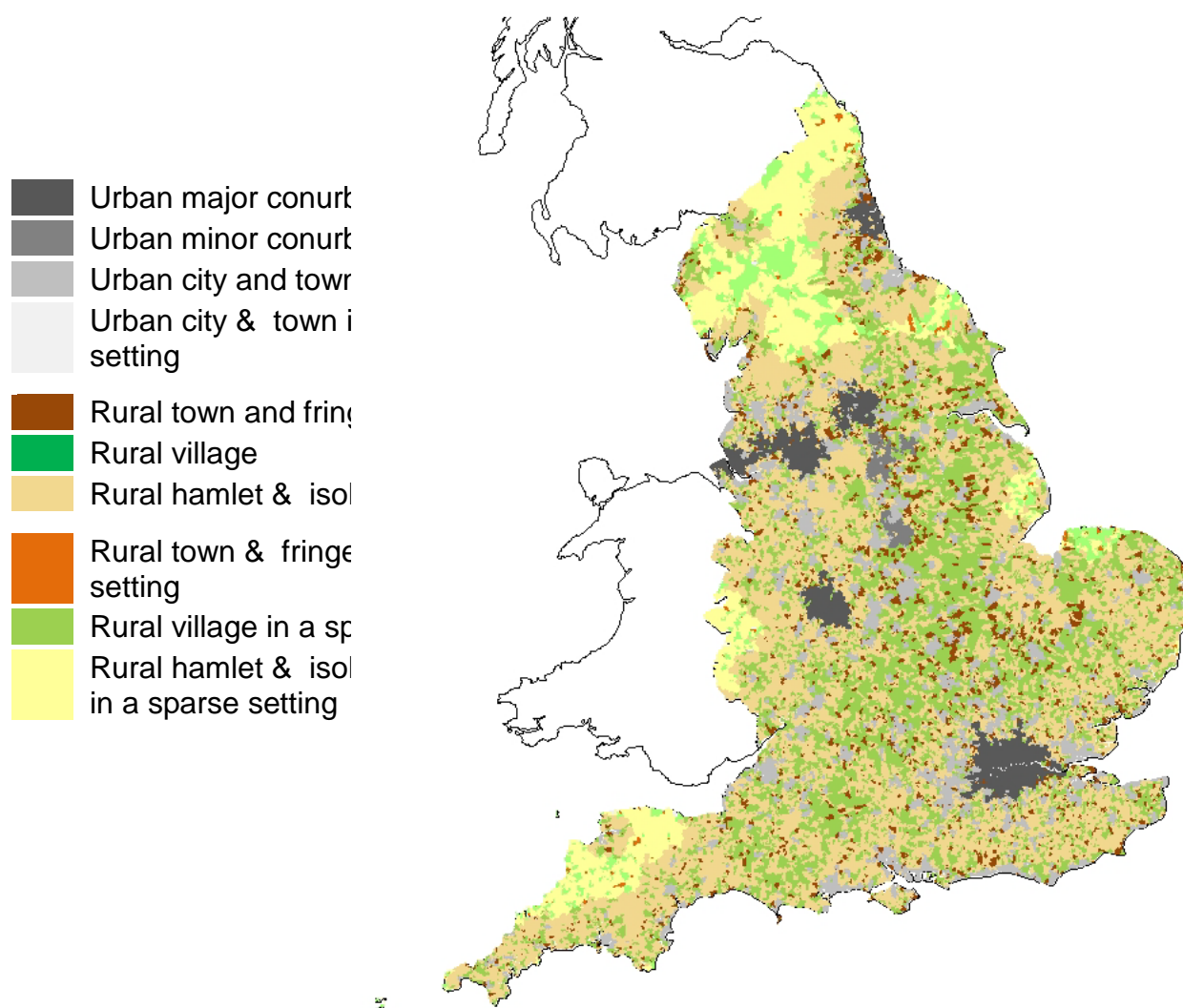
- 1.1 The Government's objectives for the next Rural Development Programme in England are to:
- Improve the environment: This includes helping to ensure that by 2021 the natural environment is improved as set out in the Natural Environment White Paper;³
 - Increase the productivity and efficiency of farming and forestry businesses, in order to improve their competitiveness and reduce the reliance of farmers and land managers on subsidies; and
 - Promote strong rural economic growth;
- 1.2 Rural Development programmes are the delivery mechanism for Pillar 2 of the Common Agricultural Policy (CAP). Political agreement on the wider CAP reform package includes a new European Rural Development Regulation, 1305/2013. This regulation provides the overarching legal framework for what the new Rural Development Programme for England can support using the European Agricultural Fund for Rural Development (EAFRD) for the period 2014-2020. A new "Horizontal" Regulation sets out important rules for how the CAP (including Rural Development Programmes) should be managed, financed and controlled.
- 1.3 Rural Development also forms part of a suite of European Strategic and Investment Funds (ESIF), alongside the European Social Fund, European Regional Development Fund and the European Maritime and Fisheries Fund. A Common Provisions regulation, 1303/2013 sets out common rules for these funds.
- 1.4 The European Commission will also publish a number of delegated acts and implementing acts setting out more detail on how programmes should be implemented. These are not expected to be agreed until spring 2014.
- 1.5 Defra undertook a consultation on CAP implementation in November 2013. The main Government response to the consultation was published on 20 December and is available at: <https://www.gov.uk/government/consultations/common-agricultural-policy-reform-implementation-in-england>. A more detailed response to a number of questions related to the shape of the programme and lessons learned was published on 26 February. This is available at: [to insert]

³ Defra (2012) *The Natural Choice: securing the value of nature* (Natural Environment White Paper) [online], available at: <http://www.official-documents.gov.uk/document/cm80/8082/8082.pdf>

2 England and its rural areas

- 2.1 England is the largest of the four countries in the United Kingdom and has a land area of some 50,301 square miles (130,278 km²), 54 per cent of the total UK land area. It borders Scotland for 60 miles (95 km) and Wales for 150 miles (240 km), and has 5,325 miles (8,520 km) of coastline. Its population in 2011 was 53.0 million, accounting for 83 per cent of the total UK population.
- 2.2 The overall population density in 2011 was 407 people per km² - making England one of the most densely populated countries within the European Union.
- 2.3 However, 85% of England's land area is regarded as rural - consisting of settlements below 10,000 people or open countryside, and some areas are identified as being sparsely populated or remote.
- 2.4 Rural areas in England are home to some 9.3 million people (17.6 per cent of the population), based on the UK Government's Rural-urban classification.

Map 1: Rural-urban classification for 2011 Census Output Areas



2.5 The UK Rural-urban classification uses 2011 Census dwelling density and mapping information to classify the settlement type and context for small area geographies and in particular for Census Output Areas (average population 309 people).

2.6 Settlements with more than 10,000 residents are urban. Rural areas are those that are not urban, with rural settlements identified using localised variations in dwelling density. The wider context of each settlement, based on dwelling densities at greater distances, identifies sparsely populated areas and thus *settlements in a sparse setting*.

2.7 Rural settlement categories are:

- rural town and fringe
- village
- hamlet and isolated dwellings
- rural town and fringe *in a sparse setting*.
- village *in a sparse setting*.
- hamlet and isolated dwellings *in a sparse setting*.

Table 1 Population by rural-urban classification, 2011

	Population (thousands)	Land area (sq km)	Density (inhabitants per sq km)
Urban major conurbation	18,784	5,289	3,551
Urban minor conurbation	1,906	843	2,260
Urban city and town	22,890	13,840	1,654
Urban city and town in a sparse setting	89	97	913
Urban total	43,669	20,070	2,176
Rural town and fringe	4,471	7,614	587
Rural village	2,773	33,598	83
Rural hamlet and isolated dwellings	1,619	51,617	31
Rural town and fringe in a sparse setting	186	430	433
Rural village in a sparse setting	158	4,328	36
Rural hamlet and isolated dwellings in a sparse setting	137	12,621	11
Rural total	9,344	110,208	85
Total England	53,012	130,278	407

Note: 2011 Rural-urban classification and 2011 Census

3 Focus for the Programme

Investing in Rural England: improving the environment and supporting economic growth in rural areas

Funding to support Rural Development

- 3.1 The CAP reform proposals allow Member States to transfer up to 15% of Pillar 1 funds to Pillar 2 and vice-versa. The Government believes that rewarding farmers for the environmental goods they provide is a much better use of taxpayers' money than providing direct subsidy. Transferring funding from Pillar 1 to Pillar 2 increases our ability to deliver improvements in the productivity and longer term competitiveness of UK agriculture and helps grow the rural economy in England. The cost of meeting our environmental obligations and objectives is more than we can afford to meet through the new Rural Development Programme even with a maximum transfer.
- 3.2 We will need to ensure that all investments are effectively targeted and deliver high value for public money. Our modelling suggests that, at the aggregate level, a reduction in Pillar 1 funding will have only a small impact on England's agricultural production levels. There is no evidence to suggest that voluntary modulation in the period 2008-12 had an adverse impact on England's farming competitiveness.
- 3.3 We have therefore already notified the European Commission that, for England, the Government will, in each year of the CAP period from 2014 to 2019, transfer 12% of the budget from Direct Payments to farmers (Pillar 1) to Rural Development (Pillar 2).
- 3.4 A review will be held in 2016 into the demand for agri-environment schemes and the competitiveness of English agriculture with the intention of moving to a 15% transfer rate in 2018 and 2019, the final two years of the CAP period.
- 3.5 With this rate of transfer we will be spending over £3.5bn on the next Rural Development Programme. This would rise to around £3.65bn with an increased transfer rate of 15% from 2018. We will be spending nearly £3.1bn on the environment over the life of the new programme. This will rise to nearly £3.2bn, the amount we spend in the current programme, if the transfer rate rises to 15% in the last 2 years. With a 12% transfer, we plan to invest £177m through the Growth Programme, and around £140m in farming / forestry competitiveness and around £140m in LEADER.

Focus for the programme

- 3.6 The new Rural Development Programme for England provides a major opportunity to invest in the rural economy and environment. We want to address clearly identified barriers and market failures. This means funding focussed on those areas where there is a real need for Government to act to ensure it provides good value for money to the UK taxpayer.

3.7 We have identified three main areas for support for the Rural Development Programme in 2014-2020. These are:

- **Environment:** Restoring, preserving and enhancing our natural environment
- **Productivity:** Increasing the competitiveness and efficiency of our farming, forestry and land-based sectors
- **Growth:** Delivering strong rural economic growth

Environment: Restoring, preserving and enhancing our natural environment

3.8 We are committed to enhancing the natural environment and meeting our key environmental commitments, including reversing declines in farmland biodiversity and addressing diffuse water pollution from agriculture and its impacts on rivers, lakes and other water bodies, building on the successes of delivery of environmental land management in the last two Rural Development Programmes, 2000-2006 and 2007-2013. Funding for restoring, preserving and enhancing the natural environment is vital if we are to meet Biodiversity 2020 goals and the legal requirements of the Habitats, Birds and Water Framework Directives. This will remain our top priority for the Rural Development Programme in England with spending focused specifically towards the environment via a more targeted scheme. As a result we plan to spend around 87% of the Rural Development Programme budget on the environment, compared with 83% in the current programme.

3.9 It is important to put this in the context of the Common Agricultural Policy reform and implementation in England. The new CAP will have a stronger focus on the environment. Greening of direct payments will make payment of subsidies conditional on some farmers undertaking activities that help the environment. Better targeting of agri-environment schemes will focus spend on the highest environmental priorities. Through a new, targeted environmental management schemes, taxpayers' money will be working harder. Our new environmental scheme will focus on maintaining and improving our most valuable sites and making landscape scale improvements in the wider countryside. We are replacing the basic entry level scheme with a scheme which will target improvements and maintain landscapes important to rural tourism; help to provide resources for farmland birds and pollinators; and tackle at source water pollution, whilst trying to reduce the risk of flooding.

Productivity: Increasing the competitiveness and efficiency of our farming, forestry and land-based sectors

3.10 Average labour productivity in agriculture remains lower than the average productivity rate in the rest of the UK economy. Agricultural productivity and outputs vary substantially across the industry, not only between sectors but within sectors

themselves. UK agricultural productivity growth has been consistently poor relative to the US and other OECD countries since the early 1980s.

- 3.11 Our proposals for farming, forestry and other land-based sectors are intended to enable businesses to become more productive, efficient and resilient. For this reason, we will focus spending on addressing market failures which hamper farming and forestry productivity to leave a lasting legacy. This will mean helping farmers to innovate, improve take up technology and engage in knowledge transfer and cooperative activities. This will make up 4% of the new programme.

Growth: Delivering rural economic growth

- 3.12 Businesses in rural areas make a substantial contribution to the national economy. In England they generate around 22% of employment and 19% of Gross Value Added (GVA). However, rural areas face some specific barriers to growth, including lack of access to high speed internet connection, lack of access to a skilled workforce and distance to and from markets. Rural populations also face disadvantages including higher fuel poverty and lack of access to key services and local amenities.

- 3.13 We will be putting a much stronger focus on jobs and growth, with a meaningful role for Local Enterprise Partnerships (LEPs). 5% of the new Programme will be directly available to Local Enterprise Partnerships through the Growth Programme. Through their investment strategies LEPs will set out how they want this spent in their rural areas. Funding will help to build knowledge and skills and support new and developing micro and small rural businesses. Small scale renewable energy and investment in broadband investments and support for tourism activities are the main focus for investment. Other European Structural and Investment Funds, such as the European Regional Development Fund (ERDF) and European Social Fund (ESF) will deliver further investment in rural areas.

- 3.14 We have allocated Growth Programme funding to individual LEPs in an equitable way using rural population as the underlying basis, with adjustments to help target the economic challenges in rural areas. More detail of how this will work is provided later in the document.

LEADER: helping to deliver jobs and growth in rural areas

- 3.15 The bottom-up, community led, LEADER approach will work alongside Growth Programme funds with a strengthened contribution of funds invested through LEADER to delivering jobs and growth in rural areas. The total budget for LEADER will be about 4% of the new programme.

4 Priorities and activities which can be supported under the new Rural Development regulation

- 4.1 To fulfil these priorities the regulation outlines ‘measures’ from which EU Member States can choose in the design of their domestic Rural Development Programmes. EU Member States must spend at least 30% of their EU funding on measures to protect and enhance the environment and at least 5% of their EU funds through the LEADER approach.
- 4.2 The new Rural Development Regulation outlines six broad ‘priorities’ for the EU for rural development. Member States must aim to meet at least four of the priorities in the design on their programmes. These priorities are broken down into a number of ‘focus areas’ under which Member States are required to identify activity for funding through their programmes.
- 4.3 Member States have flexibility to design their programmes to best suit their needs and opportunities while delivering overarching objectives that support climate change adaptation and mitigation, innovation and the environment.
- 4.4 The six priorities are:
1. Fostering knowledge transfer and innovation in agriculture, forestry and rural areas;
 2. Enhancing farm viability and competitiveness of all types of agriculture in all regions and promoting innovative farm technologies and sustainable management of forests;
 3. Promoting food chain organisation, including processing and marketing of agricultural products, animal welfare and risk management in agriculture;
 4. Restoring, preserving and enhancing ecosystems related to agriculture and forestry;
 5. Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors;
 6. Promoting social inclusion, poverty reduction and economic development in rural areas.
- 4.5 To fulfil these priorities the regulation outlines ‘measures’ from which EU Member States can choose in the design of their domestic Rural Development Programmes. EU Member States must spend at least 30% of their EU funding on measures to protect and enhance the environment and at least 5% of their EU funds through the LEADER approach.

5 Current situation in rural England and SWOT and identification of needs

An analysis of the current situation in rural England

- 5.1 The new Rural Development Programme needs to focus on those areas where there is a real need for Government to act and provide good value for money to the UK taxpayer.

To identify where there is a real need for Government to act, the first stage in producing a Rural Development Programme is to set out the current situation in rural England. This is the context within which the programme is to be framed. Evidence of this context is set out under three main areas:

- the environmental context, including climate change;
- an analysis of the state of the agricultural and forestry sectors;
- the socio-economic situation in rural areas

- 5.2 We have mapped these three main areas on to the six EU priorities to show how this evidence fits within the framework of the Rural Development regulation.

Environment and Climate Change

Priorities 4 and 5

Land use in England

- 5.3 Agricultural land use in England covers 74% of land. Centuries of farming has produced a heterogeneous landscape that supports a diverse range of semi-natural habitats and species. Of that total area, the land defined as utilisable agricultural area (UAA) in England increased by 1.0% between 2012 and 2013 from 8.9 to 9.0 million hectares. The total croppable area accounts for just over half (54%) of UAA and increased by 0.8% to just under 4.9 million hectares in 2013. Permanent grassland (including rough grazing) accounts for an additional 42% of UAA and also increased in 2013 to 3.7 million hectares.⁴ Forestry covers 10% of England, which is low compared with an EU average of 37%, although levels have been increasing recently. Just less than 70% of UAA is subject to an agri-environment (Environmental Stewardship scheme) agreement currently.

Market failures in the rural environment

- 5.4 Market failure is one of the main reasons why the Rural Development Programme is needed to intervene in the way land is managed. There are two principal categories

⁴ Farming Statistics Final Land Use, Livestock Populations and Agricultural Workforce at 1 June 2013 – England. Defra, October 2013

which can be addressed through agri-environment and forestry schemes within the new Rural Development Programme: the provision of public goods (such as landscape amenity or a thriving wildlife) and the mitigation of negative environmental impacts associated with land management activities (farming and forestry).

- 5.5 Since the 1940's agricultural mechanisation and intensification has led to a 40% increase in the area of land under crops in England. Between 1970 and 2007 families have also benefitted from continuous declines in the cost of food.⁵ However, the shift towards more intensive agriculture and timber production has increased the risk of environmental pollution and has often compromised other important benefits that we receive from the countryside, with financial as well as environmental implications.
- 5.6 For example the total annual cost of water pollution to river and wetland ecosystems and natural habitats in England and Wales is estimated to lie between £716 and £1,297million.⁶ Agriculture is a major contributor through fertilisers used to increase productivity or sediments eroded off the land. Agricultural activities also produce greenhouse gases largely through cropping and the rearing of livestock.
- 5.7 The National Ecosystem Assessment has shown long-term declines in the wider public benefits from the countryside such as clean air, productive soils, clean water and biodiversity (sometimes referred to as ecosystem services). Over 40% of priority habitats and 30% of priority species are in decline.⁷ Many others are in a reduced or degraded state, including wild species diversity and some of the services provided by soils.
- 5.8 There are plenty of good examples of where well managed agriculture and forestry can successfully provide a wide range of non-market benefits in addition to the core business of food or wood and timber production. It's not a question of production versus environment, but of restoring the right balance in the right places. For example well managed woodland can provide benefits of carbon storage and flood alleviation, along with opportunities for outdoor recreation. The importance of these benefits has been highlighted by the National Ecosystem Assessment and more recently, the report by the Independent Panel on Forestry.⁸
- 5.9 Rural Development Programme measures such as agri-environment and forestry schemes, building on regulation and industry-led good practice, can help land managers reduce the pressure they place on the natural environment, restore the natural environment and realise the broader non-market benefits that society needs.

Biodiversity

- 5.10 Whilst there has been significant progress against certain indicators of pressure on the natural environment, for example, the proportion of protected sites in favourable

⁵ Food prices and Affordability. www.parliament.uk/briefing-papers/SN06436.pdf

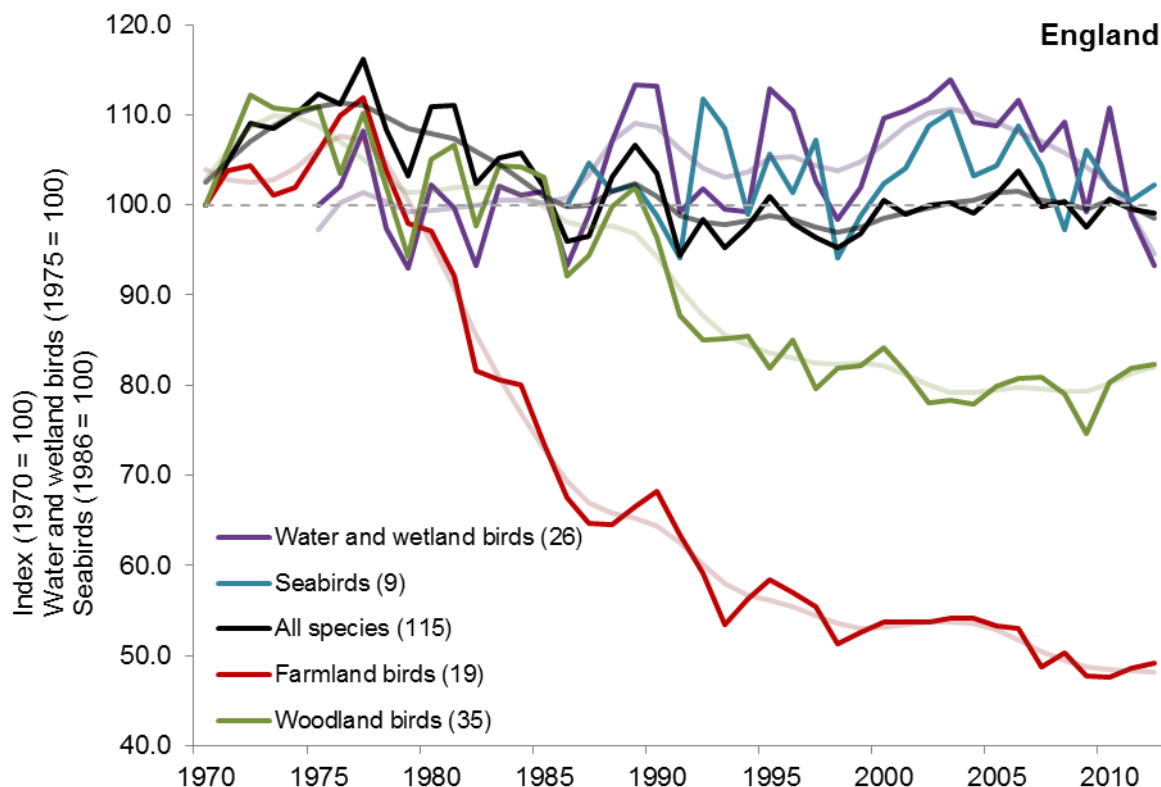
⁶ Explanatory Memorandum To The Nitrate Pollution Prevention Regulations 2008 2008 No. 2349

⁷ Available at: <http://uknea.unep-wcmc.org/>

⁸ See Defra (2013). Government Forestry and Woodlands Policy Statement, Incorporating the Government's Response to the Independent Panel on Forestry's Final Report [online] available at: www.gov.uk/government/publications/government-forestry-policy-statement

or unfavourable recovering condition, the achievement against others has been slower. A significant proportion of species and habitats of farmland and woodland continue to decline and diffuse pollution from agriculture continues to have deleterious impacts on water, soil and air quality as well as biodiversity. Birds are a widely used proxy indicator of environmental health. The diagram below shows the trends in populations of wild birds in the UK.

Table 2: Graph of populations of wild birds, 1970 to 2012⁹



5.11 However it is not just bird species that are of concern. Some 60% of England's flowering plants (predominantly species in nutrient-poor areas) are declining with 29% decreasing strongly. In contrast plants of nutrient-rich environments are increasing.¹⁰ There are also continuing localised extinction events. For example, on average, one species of flowering plant is lost from each English county every two years, with the greatest rates of loss in the south and east.¹¹ There have also been rapid losses (of more than 50% in the last 25 years) of once common species such as hedgehogs, house sparrows and common toads, and extinction of many species in parts of their former range. The fragmentation of semi-natural habitats, both

⁹ RSPB, BTO, JNCC, Defra Note: i) figures in brackets show the number of species within each group, ii) within each category, darker lines show unsmoothed data and paler lines of the same colour show smoothed trend data

¹⁰ RSPB (2013) The State of Nature report; England summary: http://www.rspb.org.uk/Images/england_tcm9-345846.pdf

¹¹ Walker, K.J. (2003) One species a year? An evaluation of plant extinctions in selected British vice counties since 1900. *Watsonia*, 24: 359-374.

farmed and woodland, leaves the species they contain less able to move and adapt in response to climate change as their climate 'space' disappears.

- 5.12 In woodlands, a reduction in management in recent decades has led to shadier, more closed and less structurally diverse forests and has had a significant impact on the wildlife woodlands support. Many light-loving woodland plants have declined, and three-quarters of specialist woodland plants have declined, while the few shade-tolerant plants have tended to increase.
- 5.13 Many of the changes in farmland wildlife are linked to shifts in farm land management, particularly those intended to boost productivity. Natural England and Defra have estimated that the cost of fully delivering the key agricultural component of Biodiversity 2020 could reach in the region of £500m per year by 2020 based on agri-environment equivalent costs.

Natura 2000

- 5.14 The EC Habitats and Birds Directives require the establishment of a European network of high-quality conservation sites that will make a significant contribution to conserving the habitats and species. These are known as the 'Natura 2000' series of protected sites. 5% of the total territory of England is classified under Natura 2000.¹² There are over 4,100 Sites of Special Scientific Interest (SSSIs) in England, covering around 8% of the country's land area. SSSI protection is given to 5.1 per cent of our total forest and 23 per cent of our ancient semi-natural woodland.¹³ Over 70% of SSSI, by area, are also designated as Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites and so comprise part of the Natura 2000 network in recognition of their international importance.¹⁴ Many SSSIs are also National Nature Reserves (NNRs) or Local Nature Reserves (LNRs). 96% of SSSI are in favourable or unfavourable-recovering condition.

Woodland

- 5.15 The forest area of England extends to 1.3 million hectares of which 16% is state owned, the remainder being owned by a wide range of individuals, companies, charitable organisations, local authorities and communities.
- 5.16 Overall 74% of the forest area is broadleaved but within the non-State component this rises to 83%. A very significant proportion of this broadleaved area, 57%, is ancient or semi-natural (priority habitats) as detailed in the table below.¹⁵

¹² Source: Natural England

¹³ PROTECTED FOREST AREAS IN THE UK: A report prepared for WWF and the Forestry Commission. 2001

¹⁴ RAMSAR sites are 'Wetlands of International Importance' and to promote their conservation

¹⁵ Ancient woodland is woodland that has been in continuous existence since 1600. Semi-natural woodland is woodland with natural characteristics (predominantly native species of trees, ground plants and animals).

Table 3: Ancient and semi-natural woodland in England

Woodland type		Area thousand ha	%
Ancient	Semi-natural	206	37
	Plantation on ancient woodland site	135	25
Other semi-natural woodland		210	38
Total		551	100%

Source: Forestry Statistics 2013. Forestry Commission

Protected Forests

5.17 The table below shows the area of protected forest in England

Table 4: Area of protected forest in England

Type of protection	Area thousand ha
SAC: Special Areas of Conservation	24
SPA: Special Protection Areas	47 ¹⁶
NNR: National Nature Reserves	9
SSSI: Sites of Special Scientific Interest	80

Source: Protected Forest Areas in the UK (S Pryor & G Peterken, 2001)

High Nature Value Farming

5.18 The conservation of biodiversity in England depends on the continuation of low-intensity farming systems across a proportion of the countryside. As such systems are often less profitable, an important role of RDP is to support the management of High Nature Value Farmland (HNVF) through agri-environment payments. HN VF exists as three types:

- Type 1 farmland has a high proportion of semi-natural vegetation
- Type 2 farmland has a mosaic of low intensity agriculture and natural and structural elements, such as field margins, hedgerows, walls, woodland etc.
- Type 3 farmland supports rare species or a high proportion of European or World populations.

5.19 The extent and condition of HN VF in England will be tracked through a combination of spatial analysis to define the extent of the resource, structured surveys and analysis of surveillance data, to inform an assessment of the condition of HN VF and

¹⁶ Calculated from Spatial and summary data for UK SPAs. JNCC (<http://jncc.defra.gov.uk/page-1409>)

its component parts. Methodological development work will be undertaken to refine our understanding of management that is consistent with Type 2 and 3 HNVF.

Water Quality

- 5.20 Clean water is a vital resource provided by the natural environment. There is good evidence that farmers are using fertilisers and manures more efficiently and effectively, particularly on grasslands, and there are positive trends identified in some indicators.¹⁷ Pollution continues to place the water environment under pressure.
- 5.21 According to Environment Agency figures from 2013, pollution from agriculture is cited as the likely cause in 31% of known failures to achieve Good Ecological Status (GES) for water bodies in England. Only 29% of river SSSIs are in favourable condition with diffuse pollution the most common cause. Other pressures include hydrological and physical modification and non-native invasive species. High levels of nitrogen and phosphorus in agricultural soils, the use of pesticides and the risk of soil erosion after cultivation increase the risk of downstream water pollution by chemicals and sediments. Climate change may add to this through increased flooding, more heavy rainfall events, (erosion, runoff etc) and low flows and warmer water temperatures which can concentrate pollutants and encourage eutrophication. Diffuse pollution impacts on the status of water bodies, including Protected Areas such as vulnerable Natura 2000 habitats, as well as drinking, freshwater fish, bathing and shellfish waters.

Water Use

- 5.22 Levels of water abstraction are highly variable from year to year and are greatly influenced by annual rainfall, particularly during the growing season. Climate change is likely to exacerbate demand and lead to reduced availability. In 2011, the recorded agricultural abstraction rate in England and Wales was 144 million cubic metres per year, 12% higher than in 2010.¹⁸ A report by the Environment Agency published alongside the Water White Paper, concluded that current levels of water abstraction in some areas are already harming nature, although agricultural uses accounted for just 0.7% of recorded water abstraction in England and Wales in 2011. It is estimated that the agricultural sector could possibly save £84m per year from water saving measures.¹⁹

Soil Quality

- 5.23 Soil degradation in England (erosion, compaction and loss of soil organic matter) is estimated as costing the economy £150-£250m per year including through lost

¹⁷ Defra (2010) A biodiversity strategy for England – Measuring Progress: 2010 assessment.

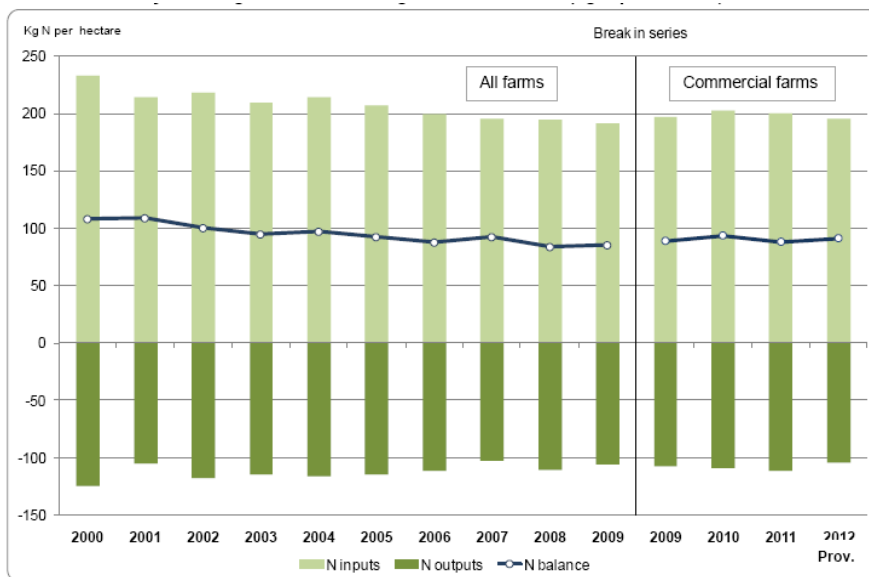
¹⁸ Agriculture in the UK. Defra 2012

¹⁹ The Further Benefits of Business Resource Efficiency. Oakdene Hollins (2011)

production.²⁰ Currently around 80% of England’s peatlands are drained and used mainly for intensive farming in the lowlands and extensive farming and grouse moors in the uplands. These activities reduce the extent by which these lands may act as carbon sinks. Compaction is also a relevant and significant threat in the UK and can occur in all farming and forestry systems at any time and on any soil where conditions are conducive to its formation.

5.24 Provisional soil nutrient balances estimates for 2012 show that the nitrogen balance for England was a surplus of 91 kg/ha of managed agricultural land. This is an increase of 3 kg/ha (4%) compared with 2011 but a reduction of 17 kg/ha (-16%) compared with 2000, reflecting the long-term downward trend. Provisional estimates for phosphorus showed a surplus of 6.3 kg/ha of managed agricultural land. This is an increase of 0.9 kg/ha (16%) compared to 2011. However, as with nitrogen, the long term trend is downward. The total surplus has fallen from 9.1kg/ha in 2000, a reduction of 31% driven by reductions in the application of inorganic fertilisers and manure production (due to lower livestock numbers), although this has been partially offset by a reduction (particularly for forage) over the same period.

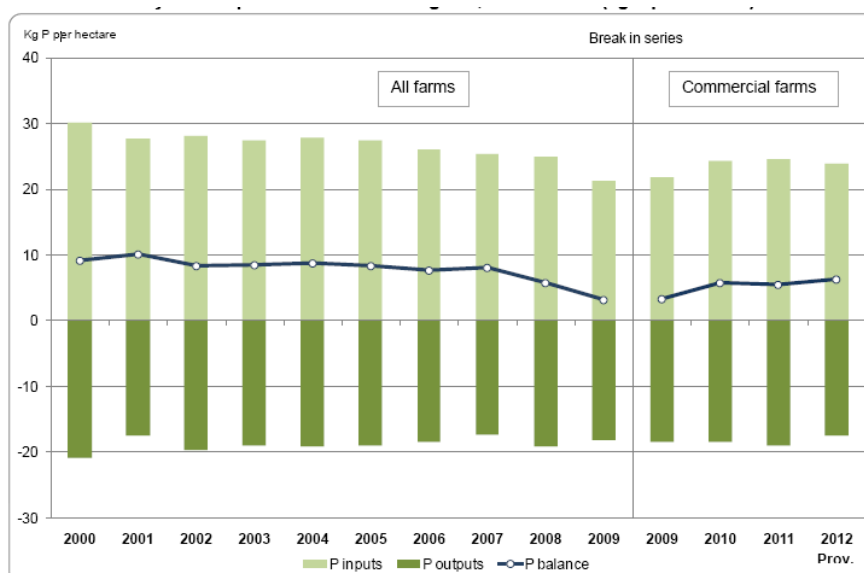
Table 5: Summaries of Nitrogen and Phosphorus balances for England, 2000 to 2012 (kg per hectare)²¹



²⁰ Soil Strategy For England Supporting Evidence Paper, Defra, 2009.

(<http://www.defra.gov.uk/environment/quality/land/soil/documents/evidence-paper.pdf>).

²¹ Soil Nutrient Balances England Provisional Estimates for 2012. Defra July 2013



5.25 Soil organic matter and carbon delivers a large number of important benefits to soil ecosystem services such as water storage (e.g. improved structure, nutrients, source of food for soil organisms). Re-sampling of National Soil Inventory sites under arable and ley grass land uses revealed a decline in mean soil organic carbon (SOC) from 33 g/kg (1) in around 1980 to 28 g/kg in 1994-5.²²

5.26 Soil erosion is another important issue for land managers in England. The table below provides estimates of soil loss rates from water erosion:²³

Table 6: Soil erosion by water in England

Soil Erosion by water	Value	Unit	Year
rate of soil loss by water erosion	1.29-4.09	tonnes/ha/year	2006
agricultural area affected	4,900.0	1,000 ha	avg. 2006-2007
agricultural area affected	3.1	% of agricultural area	avg. 2006-2007

Landscape and Historic Environment

5.27 Around 28% of the land surface of England is covered by SSSI, Area of Outstanding Natural Beauty and/or National Park designation on account of its national significance.

5.28 Whilst agri-environment schemes have played a major role in protecting and enhancing landscape and rural cultural heritage, the anticipated increase in competing pressures on land use, and for land to be used more intensively, means that these assets remain under threat. In 2010, there were circa 3,000 Scheduled

²² Soil organic matter as an indicator of soil health. Defra project SP0546. 2005

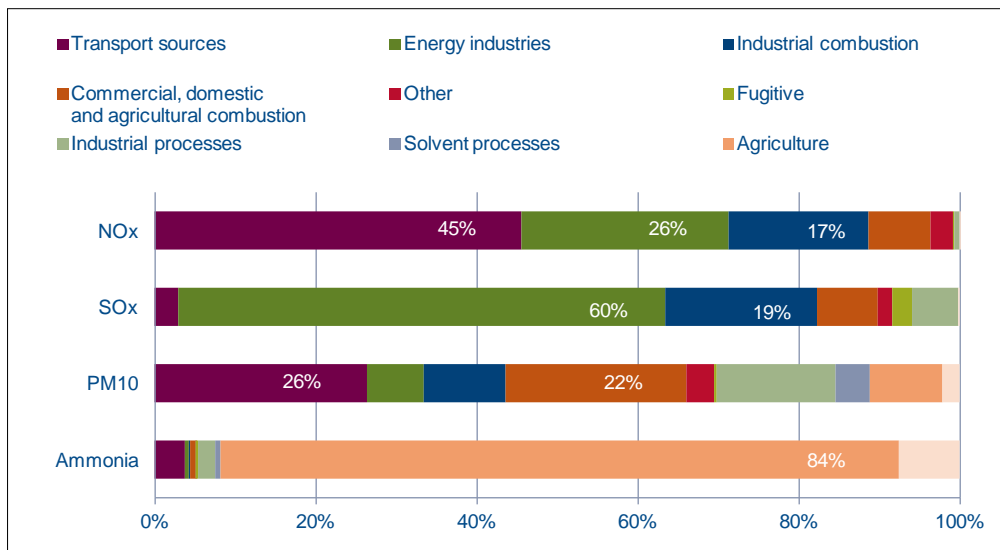
²³ Data from the European Commission Common Context Indicators dataset (July 2013) for England

Monuments considered by English Heritage as at high risk with analysis showing approximately 85% of these could be addressed by agri-environment type measures.

Air Quality

5.29 The main sources of Greenhouse Gas emissions in England are from Energy Supply (33%) and transport (23%). Total releases have decreased by 31% between 1990 and 2011 to 421 Million tonnes.

Table 7: Emissions of polluting substances to air by source in England, 2011 (data from National Atmospheric Emissions Inventory – NAEI)



5.30 Sulphur emissions and concentrations have greatly declined, rain is no longer acid, and soils and freshwaters are slowly recovering. In some areas the deposition of sulphur is now so low that there is a risk of sulphur deficiency which may require the addition of sulphur fertilisers in the future.

5.31 High levels of atmospheric nitrogen are one of the factors that have driven the observed decline in farmland biodiversity, through encouraging the dominance of competitive nutrient demanding species. The total UK deposition of nitrogen is currently equally derived from emissions of nitrous oxides (NOx) and ammonia (NH3). Measures are in place that will reduce emissions of nitrous oxides by 55% between 2005 and 2020.

5.32 Agriculture accounted for 86% of ammonia emissions in 2011, representing a 20% decrease compared with 1980, largely due to declines in cattle numbers.²⁴ Ninety-seven per cent of sensitive habitats exceeded the critical load for eutrophication from air pollution in the period 2006-2008.²⁵ Predictions for nitrogen emissions show a

²⁴ National Atmospheric Emissions Inventory.

²⁵ <http://www.apis.ac.uk/>

slight decline in emissions to 2020, but then little change from 2020-2030, and little change in nutrient nitrogen deposition.

Climate change adaptation and mitigation in agriculture

5.33 In 2011 agriculture accounted for greenhouse gas emissions (GHG) totalling 31.94 megatonnes (Mt) of carbon of carbon dioxide (CO₂) equivalent (Mt CO₂e). This represented 7.6% of total 2011 (GHG) emissions in England a drop of 20% over the base year of 1990.²⁶ GHG emissions from agriculture continuously decreased by 4% from 2006 to 2011, at a lower speed than the overall economy (-10%).

5.34 Nitrous oxide represents 61% of agricultural emissions, coming mainly from fertilizer application to soils including management of manure. Methane represents 31% of agricultural emissions, from enteric fermentation by livestock and management of manure. Carbon dioxide emissions account for 8% of agricultural emissions, principally from agricultural combustion and agrochemical use.

Table 8: Non-CO2 emissions from agriculture net of land use change in England:

(000 tonnes CO2 equivalent)	2006	2007	2008	2009	2010	
CH4 and N2O	29,549	29,148	29,085	28,633	28,909	
Net soil emissions (+)/removals (-)	2,177	2,031	1,913	1,525	1,577	
Total agriculture	31,726	31,180	30,997	30,159	30,486	7%
Total GHG emissions	495,494	493,509	480,298	438,022	448,436	

Source: UK National Atmospheric Emissions Inventory

5.35 Agriculture is the largest source of methane emissions in the UK, responsible for 43% of all emissions of methane in 2011 mainly from livestock digestion processes and the production and use of manure and slurry.²⁷ 2011 methane emissions from agriculture had fallen by 20% since 1990. Between 2010 and 2011 there was a 0.5% decrease in the level of methane emissions from agriculture.

5.36 The Climate Change Risk Assessment identifies floods, changing rainfall patterns, increased temperature and new and increased incidence of pests and diseases as the major threats to the rural economy and agriculture.²⁸ All these threats will impact on terrestrial and aquatic species and habitats (altering their 'climate space') and could severely affect agricultural production so that changes in agricultural practice are required. Efficient irrigation and on-farm reservoirs can help to mitigate the consequences of changing rainfall patterns and increase resilience of food

²⁶ Salisbury et al. June 2013. Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland 1990-2011.

²⁷ Indicator DD1 Methane Emissions. Defra Observatory 2013

²⁸ <https://www.gov.uk/government/publications/uk-climate-change-risk-assessment-government-report>

production. There is currently work underway to improve the evidence base for on-farm reservoirs, but anecdotal evidence suggests that funding poses a substantial barrier. Allowing species and habitats space to adapt on farms, in water bodies and in forests will be an important part of building climate change resilience for the environment and the economy. This will require actions to help reduce habitat fragmentation, increase connectivity, and reduce pollution.

5.37 In addition to the role in adaptation, the 2012 Review of progress in reducing greenhouse gas emissions from English agriculture examined agriculture's progress in mitigating climate change.²⁹ It concluded that English agriculture has potential to reduce its GHG emissions by adopting a range of measures improving resource efficiency. Adopting some of these measures requires identifying ways of reducing costs to the farmers e.g. use of fertiliser recommendation systems or improved genetic resources in livestock. Other practices require farmers to give up productive land or to invest in new equipment. These measures reduce GHG emissions and also support wider environmental targets and adaptation.

Climate change mitigation in forestry

5.38 The report *Combating Climate Change - a role for UK forests* sets out the forestry sector's potential contribution to climate change mitigation through carbon sequestration in growing biomass – particularly that associated with new woodland – carbon storage in harvested wood products and through wood products substituting for materials with high embodied carbon and woodfuel substituting for fossil fuels directly.³⁰ Currently, woodlands in England remove 2.2 million tonnes CO₂ equivalent,³¹ although this is projected to decline over the next 20 years as a result of the age profile of forests and the relatively low level of woodland creation in recent years compared with the 1950s to 1970s.³² Woodland creation levels are still low (circa 1,800 ha in 2012-13), but have increased since 2010, largely as a result of Rural Development payments.

Climate change adaptation in forestry

5.39 The UK Climate Change Risk Assessment highlighted the threat of pests and diseases, drought, changes in the suitability of forestry tree species and risk of wildfire as the key threats posed by climate change. Key adaptation measures include:

- improved silvicultural knowledge to allow informed species choice when planting new or re-stocking existing woodland;

²⁹ <https://www.gov.uk/government/publications/2012-review-of-progress-in-reducing-greenhouse-gas-emissions-from-english-agriculture>

³⁰ http://www.tsoshop.co.uk/gempdf/Climate_Change_Main_Report.pdf

³¹ Forestry Commission, Woodlands Indicator 8

³² LULUCF GHG inventory projections to 2050

- species diversification (to address threats from both climate change and pest and diseases);
- uptake of low impact silvicultural systems of management;
- upgrading of forest infrastructure (roads, paths, drains) to cope with extreme events; and
- bringing more woodland into management to allow adaptation measures to be implemented.

5.40 The economic case for implementing these measures has been made in the Economics of Climate Resilience with priority actions set out in the National Adaptation Programme including a sector-led Climate Change Action Plan.³³

5.41 The National Adaptation Programme and the Adaptation Sub-Committee both note the contribution that targeted woodland creation can make to adaptation in other sectors, including through flood alleviation, improvement in water quality, provision of riparian and urban shade (and cooling), extension of habitat habitats to aid species migration and the protection of soil resources.

The productivity and competitiveness of farming and forestry

Priorities 1, 2, 3 and 5

5.42 Agriculture in England generates £7.2bn in Gross Value Added, which represents 0.6 % of national GDP. It employs 228,000 people, 0.9% of total employment.³⁴ Average labour productivity in agriculture is lower than the average productivity rate in most other sectors of the economy. However, agricultural productivity and outputs vary substantially across the industry, not only between sectors but within sectors themselves, with one third of agricultural businesses in the UK providing 92% of the output of the entire sector.³⁵ This is due to a range of factors including geography, but it may also reflect farm size, training and skills, and the degree of uptake of new and existing innovative technologies.

5.43 Although the GVA for forestry is relatively low (£238 million for England, £404 million for the UK), when the GVA associated with the wider forestry sector (sawmilling, primary and secondary processing and pulp and paper) is accounted for, this rises to £6.4 billion.³⁶ Imports dominate the feedstock for the processing market in the UK with home-grown timber representing less than 20% of total wood use. However, only 53% of woodlands in England are in active management with only about one third of the annual increment currently being harvested, suggesting that there is a

³³ http://randd.defra.gov.uk/Document.aspx?Document=10659_CA0401-rep-forestryfinal.pdf

³⁴ Defra, (2012), Agriculture in the UK statistics for 2011

³⁵ Defra analysis based on Farm Business Survey (FBS)

³⁶ Annual Business Survey / Annual Business Inquiry: Office for National Statistics, June 2009 and June 2013.

greater potential for utilisation which would in turn lead to increased levels of public goods.³⁷

Market failures in the farming and forestry sectors

- 5.44 The Rural Development Programme provides a method for addressing a range of barriers and market failures in the farm and forestry sectors, specifically in relation to investment in new technology, skills, infrastructure, information and advice.
- 5.45 Innovation is one of the key drivers of productivity growth in agricultural and forestry businesses, alongside the adoption of new technologies and cost reductions as a result of economies of scale.³⁸ However the full benefits of research and development investments typically exceed the returns for individual businesses (for example, over time they extend to competitors as workers move on and expertise is disseminated more broadly). There is generally a role for government in funding public research and development programmes. In the agricultural sector, UK productivity has been in decline relative to its major competitors for the past three decades, and there is evidence that a lack of expenditure on public research and development is one of the causes for this.³⁹ The UK Agricultural Technologies Strategy aims to address this, through an additional £160 million match-funded spend on applied and translational research and infrastructure, amongst other measures.⁴⁰
- 5.46 Further market failures may prevent the spread of innovation from ‘early adopters’ through the industry, for example, if there are barriers to the transmission of information about the benefits of new technologies and processes, or if farmers’ or forest managers’ isolation from other innovative businesses prevents them from taking up collaborative opportunities. However, it should be noted that there is a ‘government failure’ in this area, whereby existing subsidies retain low performing businesses in the market, reducing the incentive for land managers to adopt the successful innovations of the top performers.
- 5.47 Skills levels and knowledge among staff are also key to generating and adopting new innovations, but individual firms are unlikely to capture the full benefits of investing in educating and training a mobile workforce.⁴¹ This provides a rationale for government to support investment in education and the skills of workers across the

³⁷ Forests and woodlands that are undermanaged often provide a lower level of ecosystem services than those in active management both in terms of goods with a market and those without for example increased management for utilisation can lead to an increase in timber and biodiversity. By utilising a higher proportion of wood from England’s timber resources the resilience and ecosystem services provided by those woodlands would also be increased.

³⁸ Fostering Competitiveness and Innovation in Agriculture, OECD, 2011

³⁹ Thirtle and Holding, 2004: Productivity of UK agriculture: Causes and constraints,

⁴⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/227259/9643-BIS-UK_Agri_Tech_Strategy_Accessible.pdf

⁴¹ UK Commission on Employment and Skills, Employer Skills Survey, 2011

economy. However, as elsewhere, this must be weighed against the risk of 'crowding out' private sector activity in the market for knowledge.

5.48 The primary market failure in forestry relates to the environmental public goods provided by woodland management. Lack of forestry expertise, lack of practical skills and poorly developed supply chains (e.g. for hardwood) add to the problem and result in a suboptimal level of active woodland management. . By bringing more woodland into active management public benefits such as biodiversity enhancements are produced alongside private benefits (timber / woodfuel).

Competitiveness of the agriculture sector

5.49 Industry productivity is a widely used indicator of competitiveness. Productivity can be measured as the ratio of output to a particular input (labour, capital etc) or it can be considered as the ratio of all outputs to all inputs to give Total Factor Productivity (TFP).

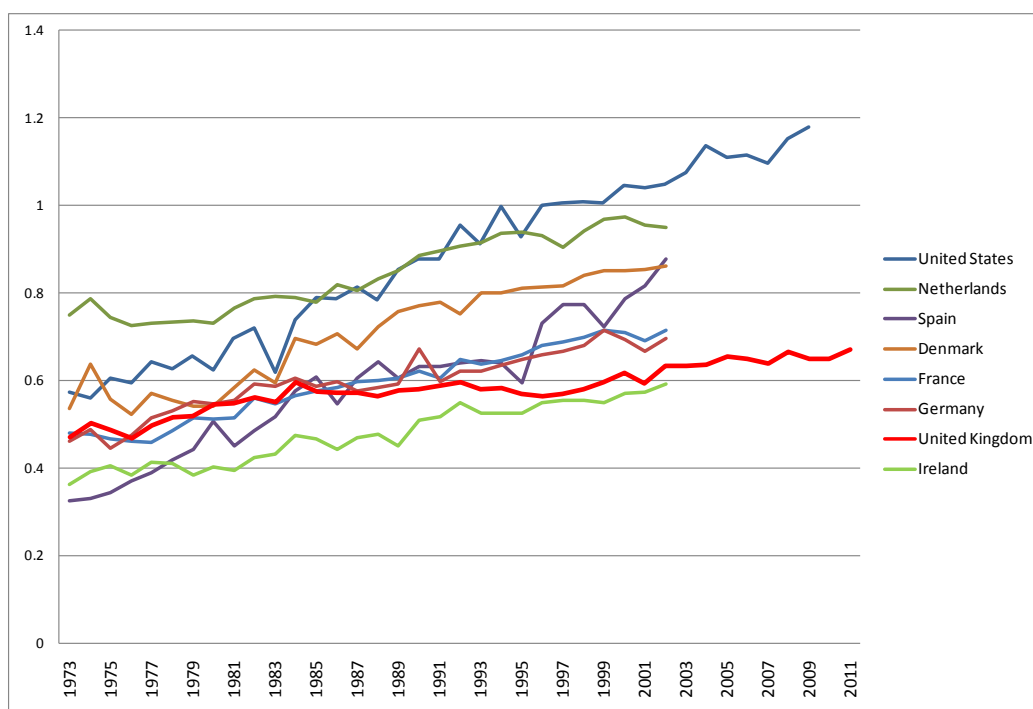
5.50 In the mid-1970s the UK's agricultural productivity (as measured by TFP) was above the EU average (for the then EU10), although still behind the leading EU countries and the US (as **Table 9** illustrates). UK agricultural productivity growth has been consistently poor relative to the US and other OECD countries since the early 1980s. Between 2002-9, UK agricultural productivity grew at an average annual rate of 0.4%, falling further behind the US which grew at 1.7% per year.

5.51 The UK is falling behind its competitors, both in terms of the rate of productivity growth, and in absolute terms. For example the average rate of TFP growth for Western Europe and the US in the 1984-2002 period was 1.4%, while the UK grew at 0.3%. The study suggests that in absolute terms in 1973, UK productivity was on a par with France, Germany and Italy, and well ahead of Spain. By 2002, UK productivity was around 10% lower than France, Germany and Italy, and nearly 30% lower than Spain.

5.52 A strength in English agriculture in competitiveness terms is its large average farm size, with standard output (SO) per holding of €135,361 compared to an EU-27 average of €25,450 Euro.⁴²

⁴² Standard Outputs are representative of the level of output that could be expected on the average farm under "normal" conditions (i.e. no disease outbreaks or adverse weather). They measure the total value of output of any one enterprise - per head for livestock and per hectare for crops

Table 9: Total factor productivity in agriculture for selected countries relative to the United States 1996 level (indexed)⁴³



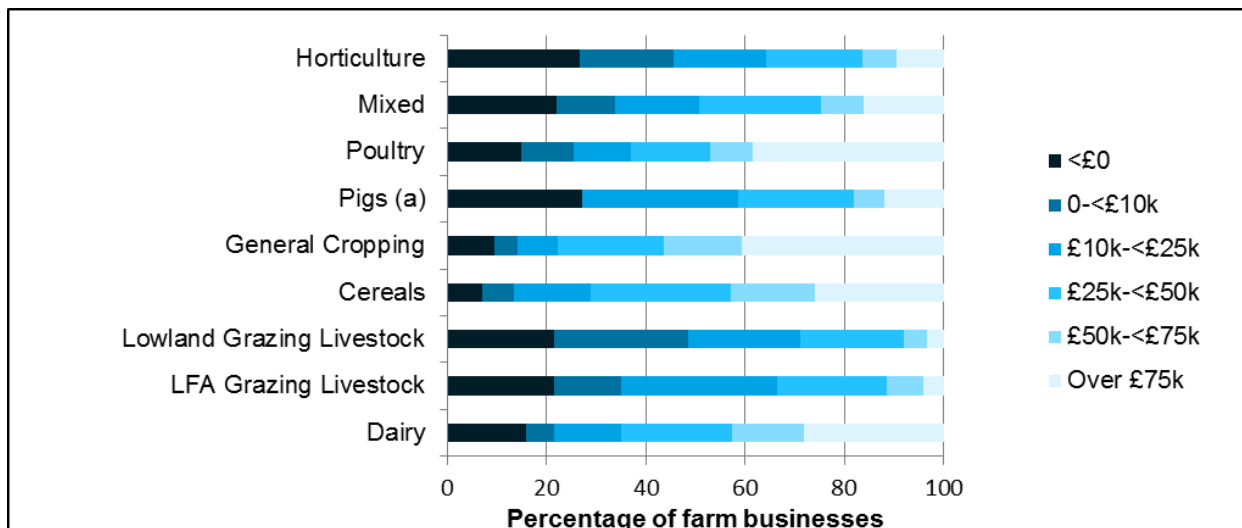
Farm income between sectors

5.53 There is considerable variation in income distributions between sectors (see **Table 10**). In the dairy and cereals sectors, nearly 40% of farmers made business incomes greater than £50,000 in 2012. These are also sectors in which the UK fares well in international comparisons of production costs and yield.⁴⁴ However, in the grazing livestock, mixed and horticultural sectors more than 10% of farmers made losses, even after the inclusion of agricultural subsidies. Nevertheless, poor performance is not of itself a rationale for government intervention. Additional assistance to these sectors would need to be justified on the basis of the existence of market failures.

⁴³ Source: Ball et al (2006) Productivity and Competitiveness in EU and US Agriculture, DEFRA, USDA

⁴⁴ EU dairy farms report 2011, EU cereal farms report 2011

Table 10: Distribution of Farm Business Income by farm type, 2012/13⁴⁵



Education and skills

5.54 Of low performing farmers (bottom 25% in terms of ratio of value of output to input), more than 50% have no higher education, compared with less than 30% of high performing farmers. Evidence from the United Kingdom Commission on Employment and Skills (UKCES) indicates that a smaller proportion (43%) of employees working in agriculture, forestry and fishing received training in 2012 compared with the national all-sector average (52%), and recent evidence from the Labour Force Survey corroborates this.⁴⁶

5.55 However UKCES also tell us that average spend on training (per trainee) in the agriculture, forestry and fishing sector is the highest among all sectors, suggesting that agricultural training is expensive relative to other sectors. We know from the Farm Business Survey that the number of farmers (heads of holding) currently engaged in Continuous Professional Development is relatively small, so although the investment per worker in skills in the agriculture industry may be higher than other sectors, skills and training may nevertheless be underprovided.

5.56 Data on vacancies from the UKCES Survey shows that the agriculture, forestry and fishing sectors in England has a higher level of Skills Shortage Vacancies (SSVs) as a proportion of vacancies (28%) compared with the national average (16%).⁴⁷ The same survey suggests that the result of this is increased costs, difficulties introducing new working practices, technologies, products and services.

⁴⁵ Farm Business Survey (FBS) Imputed rent and unpaid labour are not included in the Distribution of Farm Business Income calculations. Farm Business Income is a measure of the profitability of a farm and includes income from agri-environment schemes and the single farm payment.

⁴⁶ UKCES (2012) Agriculture, Forestry and Fishing Sector Skills Assessment 2012

⁴⁷ An SSV occurs where a firm has difficulty filling a vacancy due to "low numbers of applicants with the required skills, work experience or qualifications."

5.57 Farm businesses that undertake activities such as budgeting, financial monitoring and benchmarking are generally higher performers than businesses that do not undertake these activities. However around half of farmers have indicated that they are not interested in employing business management practices while less than 20% of farmers carry out some form of benchmarking activity.

5.58 In 2011 Lantra, the sector skills council for land-based sectors, identified skills issues and business needs in the UK forestry sector. Key areas were safety, skills loss through an ageing workforce, adapting to climate change, biosecurity, business planning and marketing.

New workforce and generational renewal

5.59 The recent Future of Farming Review considered that the low numbers of farmers retiring or exiting from agriculture is restricting the opportunities available for new entrants to enter and progress through the sector.⁴⁸ This may also be exacerbated by the CAP and other mechanisms, such as the inheritance tax framework, tenancy succession laws and the lack of sufficient and affordable housing. There is a loose link between an increase in the age of farmers and a decreasing willingness to continue training that may support the take-up of innovative practices and technologies.⁴⁹ With only 4% of farm managers aged under 35, compared with an EU-27 average of 7.5%, there is an opportunity to undertake specific, targeted interventions to assist new entrants entering the industry and remove barriers to exit, facilitating a more innovative, entrepreneurial workforce where possible.

Supply chains

5.60 Many of the barriers that apply to wider rural businesses also apply to the development of more robust and resilient food and woodland products supply chains:

- lack of easy access to market (both physical markets and virtual markets through poor broadband coverage);
- poorer infrastructure provision;
- lack of access to hubs or relevant innovation due to distance or poor connectivity;
- the planning system, both to build new structures and extend or change the use of existing buildings.⁵⁰

5.61 Likewise, some of the intrinsic opportunities that are present for rural businesses, such as stronger social networks and consumer preferences for local or specialist

⁴⁸ The Future of Farming Review, 2013

⁴⁹ Defra Farm Business Survey, published May 2013.

⁵⁰ Please see priority 6, but main reference is Economic performance of rural areas inside and outside of city-regions. SQW and Cambridge Econometrics and Defra's Rural Economy Growth Review 2011.

produce are particularly strong for primary producers and for the wider food and woodland products supply chain. As a result there is a similar need for a focus of support to overcome these difficulties and make use of the opportunities available to develop a strong food chain organisation.

Risk management

5.62 The Farm Business Survey suggests that around 80% of farmers carry out some risk management practices. However, short-term or seasonal thinking is a common issue in the sector. Longer term measures, such as taking out crop or animal insurance, or adopting more resource sustainable land management practices, tend not to be taken up. Evidence suggests that European cereal farmers are much less likely than US or South African farmers to engage in futures markets in order to guarantee a price for their produce.⁵¹ The most common reason for not undertaking risk management practices is that the benefits are not clear to the farmer, suggesting that there is a need for demonstration of the benefits or training about the significance of risk management for agricultural businesses.

Animal Health and Welfare

5.63 Standards of animal welfare in the UK and EU are amongst the highest in the world. The Rural Development Programme provides the opportunity to support animal keepers both in building up their levels of expertise in animal husbandry, generally recognised as the single most important influence on animal welfare, and to support capital investment in welfare-friendly practices and the trialling of such under commercial conditions with a view to sharing successes across Europe and beyond. Given the importance of individual stockmanship, wider collaboration and industry buy-in is critical to the success of any initiative to raise standards. Significant increases in UK exports of pork, beef and lamb in recent years have been achieved, partly at least, as a result of our reputation for a high quality product, underpinned by robust animal health and welfare standards. Government intervention to promote animal health and welfare can be justified because both people and other animals benefit from disease free, healthy livestock beyond the private benefit which farmers focussing on maximising profit would reap in investing in the health and welfare of their herd. Conversely, through the spread of disease, other animals and people can suffer the negative effects of underinvestment by an individual farmer. As such public welfare can be improved if the government intervenes to promote animal health and welfare beyond the free market level.

⁵¹ Defra Regulatory & Risk Management Economics Branch, Food and Farming Group (Economics) "Agricultural Commodity Futures Markets – Theoretical and Empirical Analysis of Developmental Aspects". 2011.

Socio-economic and rural situation

Priority 6

5.64 The rural population in England performs relatively well on many socio-economic indicators, including lower levels of unemployment and poverty compared with urban areas. Businesses in rural areas make a substantial contribution to the national economy. In England they generate around 22% of employment and 19% of Gross Value Added (GVA). However, rural areas face some specific barriers to growth, including lack of access to high speed internet connection, lack of access to skilled workforce and distance to markets, while rural populations face disadvantages including higher house prices, higher fuel poverty and lack of access to key services and local amenities.

Employment Rate

5.65 The employment rate in 2011 was higher in rural areas (74.6%) than in urban areas (69.2%), but has fallen for both in recent years. It was highest in less sparse rural villages & hamlets (75.0%) and lowest in less sparse urban areas (69.2%).

5.66 Employment rates have been consistently higher in less sparse rural areas than in sparse rural areas. Employment is crucial for economic growth and social wellbeing and the steady decrease in the employment rate from 2007 can be attributed to the economic downturn.

Table 11 Percentage of working age population who are employed, by settlement type in England, 2006 to 2011.

	2006	2007	2008	2009	2010	2011
Less sparse urban	71.8	71.8	71.4	69.8	69.4	69.2
Sparse urban	71.7	69.2	71.9	68.2	72.9	74.1
Less sparse rural town & fringe	76.5	76.3	76.0	75.2	74.2	74.5
Sparse rural town & fringe	74.0	75.5	75.2	73.9	70.9	72.6
Less sparse rural village & hamlets	76.4	76.0	76.5	75.2	75.6	75.0
Sparse rural village & hamlets	71.1	72.4	76.5	74.6	75.0	72.8
Urban	71.8	71.8	71.4	69.8	69.4	69.2
Rural	76.2	76.0	76.3	75.2	74.8	74.6
England	72.6	72.6	72.3	70.8	70.4	70.2

Source: Office for National Statistics, Labour Force Survey

Employment in primary and non-agricultural sectors

5.67 Agricultural sectors account for around 7% of employment in rural England. Other sectors employ proportionately higher numbers of people, including wholesale and retail, manufacturing, health, education and tourism related services

Table 12: Total and percentage employment by sector, Rural England 2010/11.

	Total	Percent
Wholesale & retail trade, repair of motor vehicles	535,760	14.2%
Manufacturing	448,168	11.9%
Human health & social work activities	348,508	9.2%
Education	338,127	9.0%
Accommodation & food service activities	310,413	8.2%
Construction	273,909	7.3%
Agriculture, forestry & fishing	266,535	7.1%
Professional, scientific & technical services	262,829	7.0%
Administrative & support service activities	227,049	6.0%
Transport & storage	190,259	5.0%
Public administration & defence, compulsory social services	113,673	3.0%
Information & communication	112,680	3.0%
Arts, entertainment & recreation	107,387	2.8%
Other service activities	83,654	2.2%
Real estate activities	58,950	1.6%
Financial & insurance activities	46,118	1.2%
Water supply, sewerage, waste management & remediation servs	21,909	0.6%
Mining & quarrying	13,574	0.4%
Elec, gas, steam & air conditioning supply	11,957	0.3%
	3,771,459	100.0%

Source: Defra data extraction from IDBR

Productivity of primary non-agricultural sectors

5.68 Rural businesses in England generate around 22% of employment and 19% of national Gross Value Added (GVA, worth £211bn). Whilst agricultural sectors provide an important contribution, other sectors provide proportionately higher GVA in rural England.

Table 13: Gross Value Added (GVA) by industry: percentage breakdown within local authority classification, 2010

	Predominantly Rural		Significant Rural		Predominantly Urban		England	
	GVA (£m)	%	GVA (£m)	%	GVA (£m)	%	GVA (£m)	%
Agriculture, forestry and fishing	3,994	2	2,312	1	817	0	7,123	1
Business service activities	16,476	10	27,232	11	92,558	14	136,266	12
Construction	12,198	7	20,240	8	37,981	6	70,419	6
Distribution; transport; accommodation and food	33,604	20	54,920	22	125,029	18	213,553	19
Financial and insurance activities	6,869	4	14,217	6	89,564	13	110,650	10
Information and communication	6,089	4	12,059	5	50,464	7	68,612	6
Other services and household activities	6,039	4	8,801	3	23,810	3	38,650	4
Production	29,519	18	46,027	18	73,675	11	149,221	14
Public administration; education; health	35,499	22	48,215	19	130,767	19	214,481	20
Real estate activities	13,858	8	20,902	8	55,992	8	90,752	8
Total GVA	164,145	100%	254,925	100%	680,657	100%	1,099,727	100%

(from page 84 of Statistical Digest of Rural England, June 2013)

Tourism

5.69 Tourism is worth £106 billion to England's economy taking into account direct and indirect impacts, and supports 2.6 million jobs. English tourism has grown faster than manufacturing, construction and retail sectors. The tourism economy in England accounts for 8.8% of England's GDP and 9.4% of employment. Both the value of the sector and employment levels have grown in recent years, outperforming the wider economy which further demonstrates the resilience of the industry during times of economic strain. Outside London tourism is worth £70 billion and supports 1.9 million jobs demonstrating that the sector is vital to the economic health of much of the country, including rural areas.⁵²

⁵² Deloitte, 2013

Market failures and barriers to growth

- 5.70 Despite the relatively strong economic performance of rural areas as a whole, the Rural Economy Growth Review identified a remaining gap in productivity between rural and urban areas.⁵³ One of the fundamental differences is that rural areas tend to be more distant from concentrated economic activity and the associated productivity benefits (or agglomeration economies) for businesses. These benefits include knowledge transfer, labour markets where demand for and supply of skilled labour is high, and access to supplier and customer markets. A consequence of being at distance from agglomeration is that knowledge transfer is weaker, labour and skills are more sparsely spread, and upstream and downstream markets are more difficult to access.
- 5.71 Investment in infrastructure (such as accessibility to broadband internet connection) can increase agglomeration economies for rural businesses to a level that is comparable to that enjoyed by businesses located in more densely populated areas. However, positive externalities from agglomeration are not factored into market decisions, so there is a case in principle for government support.
- 5.72 Specific market failures can also act as barriers to growth. For tourism, for example individual hotels or other tourism businesses have an incentive to free ride on co-ordinated efforts to invest in marketing a destination (town, region or country) as opposed to their own business. As a consequence, left to their own devices individual businesses would under invest in these kinds of destination marketing activities. By contrast, support from destination management organisations can enable better coordination of marketing activity (alongside product development) to advertise what a local area offers and attract more visitors, bringing benefits to the wider rural economy.

Analysis of the Strengths, Weaknesses, Opportunities and Threats

For the second stage in developing a programme, we are required to undertake a SWOT [Strengths, Weaknesses, Opportunities and Threats] analysis. This, alongside the situation in rural England, helps us to decide on priorities, objectives and measures to be undertaken and to demonstrate where best to focus Rural Development funding. The strengths and weaknesses generally refer to existing positive and negative attributes whereas the opportunities and threats refer to the future.

- 5.73 We have undertaken this for each of the three areas below:

⁵³ Available at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/86100/Rural_Economy_Growth_Review.pdf

Strengths, Weaknesses, Opportunities and Threats: the Environmental context, including climate change

Strengths

Agri-environment schemes can reverse biodiversity declines when highly targeted. Whilst most biodiversity indicators for priority species continue to decline there have been large national population increases in several rare bird species and recent evidence at a landscape scale for farmland birds. There is evidence of significant biological responses and improvement of critical habitats via targeted land management.

Around 70% of agricultural land is under management helping secure multiple environmental outcomes. 96% of SSSIs are now in favourable or recovering condition. High uptake has led to positive changes in the attitude of farmers to management alongside environmental outcomes.

The natural environment is an important cultural and economic asset. The benefits of SSSI management outweigh the cost when the full range of public benefits is considered.⁵⁴ The public goods supplied by landscape and the historic environment in rural areas provide a major contribution towards the rural economy, through tourism and recreation, health and wellbeing and personal development and fulfilment.

Reducing use of fertilizers and manures that harm the natural environment. There is good evidence that farmers are using fertilisers and manures more efficiently and effectively particularly on grasslands with soils and freshwaters now stable or improving, driven in part by greater awareness, alongside price factors.

Greenhouse gas emissions continuously decreased by 4% from 2006 – 2011. In 2011 greenhouse gas (GHG) emissions from agricultural soils and livestock were down 20% over the base year of 1990.

Weaknesses

Declining Biodiversity (variety of life): the most threatened species have declined in overall numbers by 77% since 1970 in part due to agricultural intensification. Decline has slowed recently but there are few signs of recovery, with over 40% priority habitats and 30% priority species in decline. Important agricultural and forestry habitats are fragmented due to changes in land use and practice, reducing long term viability and climate resilience.

Unsustainable use of natural assets: Evidence from the National Ecosystem Assessment indicates that England is failing to conserve its natural capital assets and to invest in them adequately. A recent survey half of farmers reported that they have experienced soil erosion.

High levels of pollution from agriculture and environmental damage: Diffuse water pollution from nutrients and eroded sediments continues to harm the environment and prevent Good Ecological Status for many water bodies. Ammonia emissions damage ecosystems, biodiversity and human health. The current regulatory regime will not, on its own, enable compliance with the Water Framework Directive.

Vulnerability of forestry to pests and diseases: Forests are subject to a wide range of pests and diseases and generally adapt well to native species. However, exotic pests and disease species impact particularly on extensive areas, leaving forests more susceptible to climate change effects.

Lack of land use multi-functionality: an over focus on intensively managing land for just one thing, for example food production, can lead to wider benefits from the environment being lost, potentially at a cost to both the land manager and wider society.

Over-reliance on government led intervention for the environment: there is a reliance on RDP interventions to ensure the effective provision of public environmental goods and ecosystem functions. Innovative mechanisms such as Payments for Ecosystems Services are not widely taken up.

⁵⁴ GHK (2011) Benefits of SSSIs in England and Wales

Strengths, Weaknesses, Opportunities and Threats: the Environmental context, including climate change

Opportunities

Protection and enhancement of biodiversity (including forestry) and increasing its capacity to deliver multiple benefits to people: there is on-going market failure for protection and enhancement of the natural environment, requiring continued government intervention. More effective targeting of schemes, especially for where priorities overlap (e.g. biodiversity and water quality), can help land managers deliver multiple benefits more effectively. Targeted land use change to woodland can contribute to both carbon sequestration and water quality; flood risk management or recreation.

Recognising the value of landscape and historic environment assets: There is growing demand for nature based sustainable tourism for which landscape and the historic environment are essential elements. Improved local buy-in could be assisted by applying a better understanding people's relationship with their local natural environment and cultural associations. This will enable the need for RDP action and its potential local benefits to be framed more clearly and persuasively.

Optimising resource use and protecting natural capital: protecting natural assets through improving efficiency in natural resource use and utilising waste products such as through the use of anaerobic digestion technology. This should save money in the short term and protect long term productive capacity and competitive advantage, including resilience to climate change.

Maintaining genetic diversity: in order for crops and livestock to adapt, naturally or with human intervention, to future needs and challenges. Potential to apply organic farming techniques, use traditional breeds and greater diversity of crop types linked to the environment / local traditions.

Planning and coordinating interventions on a scale that hydrological and ecological processes operate: Interventions could be more effective by planning upstream management of water on a catchment scale, or by coordinating interventions on the scale of habitat connectivity or species distribution. This could help harness nature's potential to act as "green infrastructure, with synergies sought with other outcomes.

Threats

Increased pressure and competition for land use. pressures on public benefits such as biodiversity, protected areas, water environment, landscape character and rural archaeological assets are likely to increase as a result of increased competition for land use (e.g. food production, energy generation, urban and mineral development). This threatens the fundamental ecological life support systems that we rely on, as well as our quality of life and local and regional distinctiveness, with implications for the tourism economy.

Lack of expertise in recognising and managing environmental risks and opportunities in the farming and forestry sector: e.g. failure to manage natural assets effectively and adapt and be resilient to climate change could exacerbate issues such as water availability, species diversity and soil quality. This may put farm and forestry businesses at risk of greater costs and reduce performance in the long term. It will also reduce the ability of natural systems to provide essential public benefits. The costs to businesses and society could increase if pressures on the natural environment are not reduced meaning alternatives have to be found for what nature provides for free.

Man-induced pressures threaten the future of functioning and resilient ecological networks: pressures such as atmospheric pollutant levels for nitrous oxide and ammonia, diffuse water pollution or semi-natural habitat loss and fragmentation could continue to threaten sensitive habitats and risk securing coherent ecological networks for the future. Climate change is the most significant threat to the ability of woodlands to continue to deliver ecosystem services. A fragmented landscape, simplified forest composition and structure and pressures such as pests, storms and droughts will continue to make autonomous forest adaptation much more difficult and impact on meeting environmental commitments and obligations.

Strengths, Weaknesses, Opportunities and Threats: the Environmental context, including climate change

Partnership with industry: government interventions could be enhanced by greater partnership working with land managers, key NGOs and industry representatives. A more joined up approach between government and industry led initiatives could build on successes between the Pesticides voluntary initiative and Catchment Sensitive Farming to improving water protection, and farm assurance schemes.

Improvements in soil management and irrigation to reduce water use: promotion of good soil management techniques could significantly reduce the need for irrigation. Water use and abstraction issues could be reduced through improvements in irrigation scheduling and efforts to form networks to encourage best practice and joint investment.

Air Quality (including GHG Emissions): improvements in fertiliser and manure management to reduce losses of ammonia and nitrous oxide at source and tree planting around point sources to help capture ammonia aerosols. Animal breeding, genetic engineering, or direct feed supplements and new types of forage plants can also help reduce ammonia and methane losses. Improving overall nutrient management systems on farms via consideration of the whole nutrient life cycle.

Encouraging private sector investment and advocacy for environmental management: we need to diversify funding sources from an over-reliance on state intervention. There are opportunities to harness private sector investments, develop payments for voluntary carbon offsets, link with land use planning processes and regulation, and encourage Corporate Responsibility benchmarking for the environment.

Enhancing the provision of ecosystem services from forestry: through improved management, and woodland expansion, particularly to reduce fragmentation and limit the impact of endemic and exotic pests and diseases.

Maximise health and wellbeing benefits from the natural environment: including support for access and education linked to appreciation and enjoyment of the natural environment. There is good evidence linking access to, and views of 'greenspace' to improved physical and mental health outcomes.

Increased prevalence of forestry pests and diseases. Whilst both 'pests' and 'diseases' are a natural part of forest ecosystems, in recent years their number and severity of impact on individual trees and forest areas appears to be increasing. Those causing most concern in England include Phytophthora, Chalara fraxinea, Acute Oak Decline and Dothistroma needle blight all of which result in deaths of significant numbers of trees.

Climate Change: Threats from climate change include flooding, reduced river flows with associated impacts on water quality, an increased frequency of combined sewers overflowing, heat stress, increased water temperatures, declines in soil quality and moisture levels. Peatlands are identified as one notable area at risk. We expect shifts or reductions in the area where the climate is suitable for a species to live, referred to as its 'climate space', as well as increased risk of pollutants flowing into water bodies.

Lack of public awareness of the benefits they receive from natural environment. As populations become increasingly urbanised and land ownership more concentrated in fewer hands there is a risk the population becomes increasingly disconnected from nature and fails to value it. Reconnecting people with nature will build a greater awareness of the natural environment and its benefits, increase health and well-being and to ensure environments and wildlife is protected from damage.

Strengths, Weaknesses, Opportunities and Threats: the productivity and competitiveness of farming and forestry

Strengths

The provision of research in subjects underpinning agricultural development: England is strong in basic research, including the subjects underlying agriculture such as biology and ecology. This is supplemented through a strong, well-established college and land-based education network.

Good performance and incomes in some sectors: Strong farm incomes in the dairy and cereals sectors, supported by strong yields and low production costs.

Maximising economies of scale through increasing farm size: Generally speaking, England's large farm size versus the European average suggest England is relatively good at exploiting economies of scale.

Forestry – a well-functioning market for softwoods: Prices for both coniferous and low grade hardwoods have increased in the last few years, the latter responding to the growing demand for woodfuel

Weaknesses

Relatively low overall productivity and competitiveness: England has low productivity relative to others and has slipped further behind them.

Limited application of research knowledge: Applied / private sector research and translation is limited. Decline in applied research infrastructure, including closure of many institutions. Fragmented infrastructure and lack of 'hubs' where private applied research can draw from public research.

Low levels of education and skills: Under provision of skills and training in the agricultural and forestry sectors. Lack of awareness and interest in the benefits of business skills.

Age profile: Lack of young people entering and older farmers and forest managers exiting the industry. The farm holder population age is high (median age of 59) as is the forester population.

Woodland ownership: Lack of knowledge of differing aspirations of woodland owners and in particular how they may respond to policy instruments to improve the effectiveness and efficiency of interventions.

Existing policies in the agricultural sector represent barriers to structural change: CAP subsidies keep underperforming farms in business, and limit structural consolidation.

Low incomes, particularly in livestock sectors: in 2012/13 in the grazing livestock, mixed and horticultural sectors more than 10% of farmers made losses, even after the inclusion of agricultural subsidies

Risk management: Wide-spread seasonal / short-term thinking, with poor uptake of long term risk management measures. The main barrier to further uptake is lack of opportunities/ knowledge of benefits of risk management.

Strengths, Weaknesses, Opportunities and Threats: the productivity and competitiveness of farming and forestry

Opportunities

Education and skills: Better trained, more highly qualified farmers and foresters tend to run better businesses and be more innovative and receptive to innovations (environmentally and economically).⁵⁵

Innovation and knowledge transfer through cooperation: There is more potential for cooperation in some sectors – bringing together individual businesses encouraging them to benefit from shared experience and collaboration

Succession planning: Farmers and foresters could be helped to plan for retirement or assistance given to exit strategies for poor performing farms. This would help remove less productive businesses and increase innovation.

Increased focus on resource efficiency. Help to achieve a better balance between food security and environmental security to enable future farm viability and early competitive advantage ('future-proofing farming').

Risk management: better understanding of risk management practices to support protection against biotic and other threats, including via cooperation.

Climate Change: warmer temperatures and more CO₂ in the atmosphere could improve growing conditions for some crops, though this is balanced by concerns about soil and water availability. Planting of new crops which are currently unsuitable which could increase English agricultural output.

Forestry: potential to significantly increase wood and timber production if markets are further developed. Markets for wider 'ecosystem services' for carbon, water and 'Corporate Responsibility'. Potential to develop the market for wild venison. This would enhance the economic viability of deer management required to reduce their environmental impact.

Threats

Crowding out/ additionality: There is a risk of excessive intervention which could crowd out the private sector e.g. in providing skills, transmitting information, carrying out private research. This could also dampen the competitive pressure in the industry.

Failure to influence: Risk averse farmers and foresters may not take up unproven techniques/ technology easily. In addition poor confidence in the profitability of the farming and forestry sector, and other external factors, can make them even less willing to accept the risks associated with innovation. It can also result in lack of workforce succession planning.

Continued environmental degradation could undermine the long-term viability of the farming sector, e.g. through soil erosion. Pests and diseases can also have an unpredictable and potentially significant effect on farm and forestry businesses and the food and wood supply chains. There is also a risk of failure to adapt effectively to climate change resulting in poor future farm performance.

Climate Change: Climate change is expected to have a range of negative impacts on the agricultural sector including reduced water availability and increased water demand, new pests and diseases, increased heat stress for livestock and flood risk to agricultural land.

⁵⁵ UK Commission's Employer Skills Survey 2011

Strengths, Weaknesses, Opportunities and Threats: Socio-economic and rural situation

Strengths

Lower unemployment: the employment rate in rural and urban areas is similar. The unemployment rate in rural areas is lower than in urban areas.

Lower levels of poverty: The proportion of people with income below the poverty threshold is lower in rural areas than in urban areas. 16% of households in rural areas are below the poverty threshold after housing costs. In urban areas the proportion was 23%.

Strong and diverse sectors: Rural areas provide an important contribution to the economy. Rural businesses generate around 22% of employment and 19% of national GVA worth £211bn. The rural economy is broadly similar to the national economy in terms of diversity in sectors of industry and is not just reliant on agriculture or small scale production. Growing manufacturing and service sectors suggest it is flexible and adaptive.

Growth in small and micro-enterprises including those with no employees plays a relatively strong role in rural areas, accounting for over half in rural areas compared with around a quarter in urban areas. Their products and services help to develop local supply chains and have wider social benefits, e.g. farmers markets which enable local food production and reduced travel.

Strong tourism sector: tourism outside London is worth £70 billion and supports 1.9 million jobs. Tourism related industries accounted for 10.2% enterprises, 7.3% turnover and 12.6% employment in rural areas in 2009/10. Increasing the expenditure generated by tourism also has multiplier effects to other parts of the rural economy, benefitting retail, food and drink, and leisure sectors as well as stimulating regeneration and infrastructure improvements. Tourism can also help rural economies diversify and become more resilient and support rural communities and businesses under threat.

Growing renewable energy sector: the renewable energy sector is worth around £37bn. Wind power grew at the fastest rate, growing at 7.2% in 2010/11, with sales volumes increasing by £947m. Other important contributors to the UK renewable energy sub-sectors are Geothermal (£10.7bn), Biomass (£5.7bn) and Photovoltaic (£5.3bn).

Weaknesses

Lower levels of workforce productivity: a lower proportion of rural districts fall into the top performing 25% of districts and a higher proportion fall into the lowest performing 25% than for England as a whole.

Lack of skilled workforce: research suggests lack of access to a skilled workforce as a barrier to growth for rural firms.

Limited access to superfast broadband: rural businesses and households have a lack of access to superfast broadband and mobile phone coverage. Effective, reliable and fast communications are vital for the economic prosperity and social sustainability of rural England. There is a market failure in many rural areas where the provision of superfast broadband is not commercially viable. Even in areas with broadband, the average broadband speeds in rural areas are considerably lower than speeds in urban areas. In 2012 the average broadband speed in sparse hamlets & isolated dwellings was 4.4 Mbit/s compared with 14.8 Mbit/s in less sparse urban areas.

Limited access to services: being able to access key services by public transport is important not only in terms of benefiting from that service when it is needed, but also social inclusion. According to measures of accessibility of services, on average a range of key services are less accessible in rural than urban areas, including schools, hospitals, GP practices, employment services and supermarkets. For example, 16.7% of users in rural areas live within a short enough travel time of hospitals to make them likely to make the journey, compared with 31.6% elsewhere.

Seasonality of rural destinations: products and experiences do not always appeal to visitors all year round and are weather dependent. A skilled workforce, business support and lack of broadband are also barriers to future rural tourism growth.

Rural populations also face disadvantages including **higher house prices** and **higher fuel poverty**.

Strengths, Weaknesses, Opportunities and Threats: Socio-economic and rural situation

Opportunities

Potential for growth in tourism sector: building on the growing tourism sector in England and developing a year round visitor offer that is less weather dependent. More joined up coordination through Visit England and Destination Management Organisations of marketing activity and preserving and enhancing tourist attractions, alongside product development.

Improving access to superfast broadband in rural areas: the predicted impacts of broadband investment provide good value for money with a net return of £20 for every £1 spent. Long-term growth to the UK economy with public investment could increase annual GVA by £6.3 billion and provide a net increase of 20,000 jobs by 2024. Household savings of £45m a year by 2024 could be made through being able to work from home more. Broadband can also help rebalance the economy. Around 0.4m tonnes a year of CO2e savings through reduced commuting, business travel and firms shifting to cloud computing.

Enhancing benefits to communities from renewable energy: rural communities, particularly those not on the mains gas supply, often face volatile prices from supply of other fuel sources such as bottled gas or heating oil, often leading to fuel poverty. Access to finance, including support for communities in addressing the costs associated with carrying out feasibility and securing planning permission, could help overcome this.

Improve access to public services: rural communities lack access to key services. There are opportunities to develop multi-use community hubs to provide key services to remote communities, identify local service needs, prioritise support for village infrastructure and improve access to services.

Overcoming barriers to growth faced by small and micro-enterprises: The growth ambitions of small and medium rural firms are most challenged by difficulties in recruiting skilled staff, and lack of space. There are opportunities to increase support for SMEs and micro-enterprises through capital investment, business training and advice.

Threats

Over reliance on tourism can have negative effects in rural areas, e.g. on supply of affordable housing, level of wages, traffic congestion and environmental degradation.

Climate change poses threats to growth of various sectors. Continued environmental degradation, of species and habitats, can undermine the viability of many rural businesses that depend upon the natural environment for continued revenue. It is estimated that if we don't act, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year, now and forever. If a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20% of GDP or more.

Demographic change and ageing population: Rural areas have proportionately older people. An increased ageing population may place further strain on stretched public services. With approximately 50% of those living in rural areas aged over 45 years, the rural population is on average older than in urban areas. The most marked difference between rural and urban populations is at the 16 to 29 age group. In urban areas this age group accounts for 20% of the population whereas in rural areas they make up just 14%. This poses a further threat to business growth in terms of reduced access to younger workers.

Lack of access to skilled workforce poses a threat to growth of some sectors. LANTRA forecast that the land based and environmental sector (predominantly in rural areas) has significant potential for growth through to 2020, but there is a skills shortage which holds businesses back. Their analysis of the National Employer Skills Survey 2009, shows that the most common reason for vacancies in this sector was due to skills shortages. In the ten years from 2010 to 2020, LANTRA forecast the sector will need a minimum of 194,000 more employees to meet demand for growth.

6 Identification and justification of needs

The third stage in developing the new programme requires us to identify the main needs in England and to justify their inclusion in the new Rural Development Programme. Where possible, this identification of needs should also set out other funding sources or levers that can help deliver these needs. This helps set the wider framework or context for delivery of those areas identified above in the SWOT. Where possible, we are required to set out these needs along the six EU priorities for rural development and their respective focus areas.

- 6.1 We have provided a short narrative setting out the needs against the respective Priorities and underneath this set out specific needs and then set out how they fit with Focus Areas.

Priority 4: Restoring, preserving and enhancing ecosystems related to agriculture and forestry

Priority 5: Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors

What are the main needs identified?

- 6.2 Restoring, preserving and enhancing the natural environment is the principal need identified for the programme. Biodiversity levels for some species continue to decline, although it is clear there have been some increases in rare bird species and improvement in critical habitats. Important agricultural and forestry habitats remain fragmented due to changes in land use and practice and there is a clear need to improve and maintain the most important designated sites such as Sites of Special Scientific Interest (SSSIs).
- 6.3 There is a strong market failure rationale for intervention. Funding would incentivise the provision of public goods and services which otherwise would not be produced. Intervention often means reducing intensity or taking land out of production. Thus land management practices typically require an incentive to encourage farmers to deliver them, as the public and the environment itself are the main beneficiaries.

What other steps taken outside the programme will help deliver environmental needs?

- 6.4 Cross-compliance and the introduction of “greening” requirements in Pillar 1 will provide for additional environmental activity outside the programme. The need to continue to promote voluntary action of farmers is also important, particularly through the Campaign for the Farmed Environment, the Pesticides Voluntary Initiative and use of approaches like Catchment Sensitive Farming, which can also help improve

water protection. Soil erosion in England will also be tackled under cross compliance, with more targeted intervention through the new programme.

- 6.5 Elements of Catchment Sensitive Farming will be supported via the programme but additional advice, voluntary action and partnerships with third parties will sit alongside it. There are also a number of basic requirements that farmers need to meet to protect the environment, these are currently being reviewed as part of the Water Quality and Agriculture project to provide clarity for farmers. The sum of these activities will help to meet specific requirements, such as ensuring 'no deterioration' under the Water Framework Directive.
- 6.6 England has decided, for the purpose of pillars 1 and 2, not to designate Areas facing Natural Constraints, but will review the position in 2015. In recognition of the particular hardships and problems faced by farmers in upland areas, direct payment rates per hectare will be equalised between upland and lowland farms, which represents a significant increase for upland farmers on direct payments received in the previous programme. There will also be an increase for farmers in the moorland region, the level of which is being considered currently.

What other needs will the programme address?

- 6.7 Targeted improvements in the wider countryside, can help address the need for better landscape scale co-ordination to deliver multiple benefits. Currently land use tends to be focused towards the delivery of single outputs, compromising its potential to deliver additional public benefits and disengaging people from nature. The natural environment is an important cultural and economic asset and public goods supplied by the landscape and the historic environment in rural areas provides a major contribution towards the rural economy. Interventions will look to enhance this to greatest effect by exploring synergies between policy priorities, for example understanding how different elements of the programme can work together to deliver for people and wildlife. This may include land management to deal with flood risk, whilst reducing agricultural diffuse pollution and enhancing local biodiversity. Maintaining genetic diversity will help crops and livestock to adapt, naturally or with human intervention, to future needs and challenges. Application of organic farming techniques, use of traditional breeds and greater diversity of crop types linked to the environment / local traditions will also meet landscape-scale and other environmental needs.
- 6.8 There is a need for increasing the resilience of the natural environment to increased future pressures resulting from climate change or other influences. Valuing the ecosystem services provided by the natural environment can support climate change adaptation in agriculture, forestry and wider society while also benefiting the natural environment.
- 6.9 Delivery of particular land management practices will be costly for farmers to deliver. These include delivery of support for wetlands, woodlands, rural sustainable drainage, arable reversion and taking land out of production. These types of

intervention can also deliver benefits to the water environment by: reducing the source of pollutants to waters; stopping the movement of pollutants into waters from source; protecting water itself; and reducing localised flood risk. Capital investments to support water storage and efficiency activities will help address further needs for better water quality and management.

- 6.10 There is a clear need to enhance the provision of ecosystem services from forestry: through improved management of woodlands, and woodland creation, particularly to help reduce fragmentation and limit the impact of endemic and exotic pests and diseases.
- 6.11 Planning and coordinating interventions on a scale that hydrological and ecological processes operate will address a clear need and optimise management of water catchment. Planning interventions at a landscape scale will, amongst other things, help ensure woodland management is targeted to support water quality and support flood management in certain locations, including restoring and creating salt marshes for coastal flood risk management. Synergies could also be sought with other outcomes such as the provision of wood-fuel from woodland. There also remains a need to ensure improvements in soil management and irrigation to reduce water use. Water use and abstraction needs could be reduced through improvements in irrigation scheduling and efforts to form networks to encourage best practice and joint investment.
- 6.12 We may utilise programme funding for natural disasters for example flooding. However, we will consider funding alongside other ways of providing support to those affected, but as with the current programme will not set aside specific budget for this.

Focus Areas

- 6.13 The key needs identified for support under the programme will contribute to **Focus Areas 4A, 4B and 4C, 5D, 5E and 1A and 1B**. In many cases, the needs overlap and contribute to a number of focus areas. For example, there is a strong overlap between activity to support biodiversity and that supporting water and soil management.

Priority 4A Restoring, and preserving and enhancing biodiversity, including in Natura 2000 areas, areas facing natural or other specific constraints and high nature value farming, and the state of European landscapes

- Targeted interventions for species and habitat management to help rebuild a coherent ecological network and to achieve favourable condition on or affecting Natura 2000 designations.
- Targeted support for the protection and enhancement of landscape character, quality and sense of place
- Targeted support for protection of cultural heritage features and traditional farm buildings in agricultural land

- Targeted support to assist the natural environment adapt to the impacts of climate change, incorporating ecosystem service provision and consistent with adaptation of the natural environment.
- Targeted investments linking people with the natural environment (access infrastructure and education)
- Incentivise the continuation of rare, traditional crops, cultivars or animal breeds as part of the strategy to enhance the long term sustainability of agriculture
- Targeted support for flood management, where it contributes to wetland and coastal habitats

Priority 4B Improving water management, including fertiliser and pesticide management

- Targeted interventions to reduce point source and diffuse pollution from agriculture in order to meet the requirements of the Water Framework Directive

Priority 4C Preventing soil erosion and improving soil management

- Targeted interventions to reduce the risk of soil erosion, by reducing the risk at source, intercepting the pathway and mitigating impacts on receptors.

Priority 5D Reducing greenhouse gas and ammonia emissions from agriculture

- Targeted interventions to reduce ammonia emissions at source and to reduce the impacts of resulting nitrogen pollution on sensitive sites
- Support to reduce emissions of greenhouse gasses including NOx and CH4 from agriculture

Priority 5E Fostering carbon conservation and sequestration in agriculture and forestry

- Support for carbon sequestration through forest and woodland management, soil conservation, moorland peat soil restoration

Priority 1A fostering innovation, cooperation and the development of the knowledge base in rural areas;

- Support to bring farmers and foresters together to deliver landscape scale benefits

Priority 1B strengthening the links between agriculture, food production and forestry and research and innovation, including for the purpose of improved environment management and performance;

- Providing advice to farmers to support environmental performance, including meeting Water Framework Directive or other legislative requirements

Priority 1: Fostering knowledge transfer and innovation in agriculture, forestry and rural areas

Priority 2: Enhancing farm viability and competitiveness of all types of agriculture in all regions and promoting innovative farm technologies and sustainable management of forests

Priority 3: Promoting food chain organisation, including processing and marketing of agricultural products, animal welfare and risk management in agriculture

Priority 5: Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors

What are the main needs identified?

- 6.14 There is a clear need to reduce the industry's reliance on subsidy and address relatively low overall productivity and competitiveness of the farming and forestry sectors.
- 6.15 In order to tackle market failures around innovation and knowledge transfer, it is important to strengthen the application of both applied and private sector research. While the UK Agricultural Technologies Strategy will focus on new R&D funding for applied and translational research, the Rural Development Programme can provide complementary funding for additional knowledge exchange activities between researchers and producers through European Innovation Partnership Operational Groups on agricultural productivity and sustainability. This will help foster innovation and translation of research by bringing together researchers and farmers to apply technology on farm and exchange knowledge.
- 6.16 In order to tackle market failures around skills and information flows, there is a clear need to promote benchmarking, which will encourage those with potential for greater productivity to learn from high performers. Greater knowledge of the benefits of longer term risk management could also help future-proof the farming and forestry sectors.
- 6.17 Wider diffusion of both industry-specific technical skills and general business management training can help to improve productivity and competitiveness. This would also support the uptake of innovation, and improve environmental and economic performance. While skills, knowledge transfer and training delivery is available commercially, training in remote rural areas is relatively expensive, and there is a lack of awareness of farmers and foresters of the benefits of better skills levels for themselves and their staff. Specific skills where we have identified a need for development include leadership and negotiating skills, project management, people management, financial planning and market awareness.

6.18 A further identified need is to strengthen cooperation and collaboration between land owners, primary producers and businesses in the supply chain. This could bring together individual businesses in the agri-food chain and help them to innovate, impact less on the environment and maximise opportunities for cooperation across the supply chain. This will enable businesses to respond to market demand and increase their competitiveness in domestic and global market places, and support the identified need for the industry to become more self-sustaining, market facing and less reliant on direct public subsidy.

What other steps taken outside the programme will help deliver sector needs?

6.19 As noted above, the UK Agricultural Technologies Strategy will focus on new R&D funding for applied and translational research.

6.20 Under the new Pillar 1 regulation we are required to operate a Young Farmers Scheme (YFS). This will provide an additional payment to Young Farmers on top of that received under the Basic Payment Scheme (BPS). In order to qualify for the additional YFS payment applicants must be aged 40 or under in the year of their first application under the BPS and be setting up as the head of holding of an agricultural business, larger than 5 ha, for the first time or have done so in the past five years.

6.21 The Rural Development Regulation includes the possibility of support for setting up Producer Groups to boost cooperation and competitiveness at SME level. Other forms of cooperation are already available under EU and UK competition law, including under other Rural Development measures which can help producers to operate more efficiently, improve their resilience and strengthen their bargaining power.

What other needs will the programme address?

6.22 In the forestry sector there are clear opportunities to build on the growing demand for woodfuel and the potential for development of the venison supply chain to counteract the damage caused by increasing deer populations. This support will increase woodland resilience, reduce longer term dependency on government intervention and support wider rural growth.

6.23 Targeted support for young people and new entrants entering and building careers in the agricultural and forestry sectors, and for more experienced farmers to undertake better succession planning, would help re-balance the age profile of the sector and support innovation.

6.24 Improving overall animal health and welfare, and in particular tackling endemic animal disease is also an identified need which would tackle a clear market failure. Addressing this will help improve knowledge transfer, increase awareness of and use of biosecurity measures, and improve animal husbandry.

6.25 Reducing negative environmental externalities can also help the farming and forestry sectors become more competitive and sustainable. These include nutrient cycling, addressing soils and water quality, as well as air quality and climate which all affect the natural resources and processes farmers rely on. Support will help fund improvements in efficiency. The need to support greater resilience to climate change and other extreme weather events, would also be met by supporting a range of measures including improved water management and high-flow water reservoirs.

Focus Areas

6.26 The key needs identified for support under the programme will contribute to Focus Areas **1A, 1B and 1C; 2A; 3A and 5A, 5B and 5C**. In many cases, the needs overlap and contribute to a number of focus areas.

Priority 1A fostering innovation, cooperation and the development of the knowledge base in rural areas

Priority 1B strengthening the links between agriculture, food production and forestry and research and innovation, including for the purpose of improved environment management and performance

- Encouraging innovation in farming and forestry sectors, both through the use of new technology and practices through better collaboration between land managers, supply chains and research institutions.
- Encouraging knowledge exchange through seminars, workshops and demonstration activity, along with informal knowledge transfer activities.
- Supporting greater resilience in both sectors, through training and advice on risk management and longer term planning
- Providing advice to farmers to support environmental performance, including meeting Water Framework Directive or other legislative requirements. This could potentially include the Farm Advisory System

Priority 1C fostering lifelong learning and vocational training in the agricultural and forestry sectors

- Supporting improved business management practice, including leadership skills, project management, people management and negotiating skills and support to better understand financial planning and market opportunities
- Supporting professional and continued development skills in both sectors.
- Supporting businesses to see the benefits of benchmarking, to encourage those with potential for greater productivity to learn from high performers

Priority 2A improving the economic performance of all farms and facilitating farm restructuring and modernisation, notably with a view to increase market participation and orientation as well as agricultural diversification

- Supporting more effective succession of businesses and support for new entrants in building their businesses successfully in the early years

Priority 3A improving competitiveness of primary producers by better integrating them into the agri-food chain through quality schemes, adding value to agricultural products, promotion in local markets and short supply chains, producer groups and organisations and inter-branch organisations

- Supporting cooperation and collaboration between land owners, primary producers and businesses in the supply chain to provide efficiencies of scale and other benefits that collaborative working brings.
- Improving the efficiency and effective operation of supply chains in the farming and forestry sectors.
- Supporting the woodland enterprise supply chain and venison supply chain to increase the area and benefits of woodland management.
- Improving standards of animal and plant health and animal welfare

Priority 5A increasing efficiency in water use by agriculture;

- Supporting greater resilience through encouraging projects that make businesses more resilient to climate change and other extreme weather events e.g. supporting high-flow water reservoirs
- One-off investments in more efficient agricultural water infrastructure and on-farm water storage infrastructure

Priority 5B increasing efficiency in energy use in agriculture and food processing

Priority 5C facilitating the supply and use of renewable sources of energy, of by-products, wastes, residues and other food raw material for purposes of the bio-economy

- Supporting improvements in the efficiency and use of natural resources such as water and soils and reducing emission of nitrous oxides and methane from agriculture.
- Driving a shift to a lower carbon economy through supporting improvements in energy efficiency in food production and initiatives for sustainable biomass, esp wood fuel and anaerobic digestion.

Priority 6: Promoting social inclusion, poverty reduction and economic development in rural areas.

What are the main needs identified?

- 6.27 Evidence shows that whilst there are a growing number of rural micro businesses, they are constrained by access to a skilled workforce. There is also a case for some investment in business start-ups and, more so, the development of existing businesses given the evidence is that small rural businesses often lack the ability to grow in relation to their urban counterparts. This investment would be enhanced through the provision of advice, particularly in innovative business practices and business planning, and encouragement to share knowledge through cooperation between business networks and hubs.

What other steps taken outside the programme will help deliver sector needs?

- 6.28 Investment in improving access to superfast broadband in the hardest to reach rural areas will be a priority for the Programme given that poor coverage is a barrier to growth. Underlying much of this investment is the need to improve broadband and mobile phone connectivity in rural areas. The Government is investing £780m through Broadband Delivery UK to provide 90-95% of premises with superfast broadband coverage by 2017, against an overall UK target of 95% of premises. However there is a critical need for further investment in the final 5-10% hard to reach areas of each county to support the delivery of innovative solutions. ERDF and EAFRD funding programmes, with clear demarcation between the two) both offer important opportunities to support further investment and economic growth. While national funding is being put into the development of this connectivity to a large area of rural England through Broadband Delivery UK, there remains a need to increase investment for the 10% of the hard to reach rural locations.

What other needs will the programme address?

- 6.29 There is a need to support further development of the rural tourism sector, particularly in terms of developing a year round visitor offer that is less weather dependent, coordination of destination management and marketing activity; and preserving and enhancing tourist attractions, alongside product development. This has the potential to increase the economic base of rural areas through higher spend at rural accommodation and attractions as well as an increase in tourism based enterprises and job opportunities.
- 6.30 Retaining the vibrancy of rural communities, and creating a platform for economic growth, would be achieved through investment in village infrastructure, such as access to key services. Community hubs have been shown to provide an effective way of bringing various services together in one place along with community advice centres. Investment in social (community led) enterprises to provide services such

as transport, shops and ICT can deliver sustainable communities. We have identified a specific need to ensure these support job creation and economic growth.

6.31 There is a range of existing policy initiatives to support the development of the renewable energy sector, including feed-in-tariffs. However, there remains a need to support community led renewable energy infrastructure to help reap wider benefits for rural areas. Rural communities face volatile prices and this often leading to fuel poverty. Access to finance, including support for communities in addressing the costs associated with carrying out feasibility and securing planning permission, could help overcome this.

Focus Areas

6.32 The key needs identified for support under the programme will contribute to Focus Areas **6A**, **6B** and **6C**. Priority 6B includes delivery of the LEADER approach and so a number of needs are repeated in this section.

Priority 6A facilitating diversification, creation and development of small enterprises and job creation

- Building knowledge and skills in rural areas;
- Funding new and developing micro, small and medium sized rural business
- Focus more on job creation and business development in rural areas, including supporting basic services linked to growth and sustainable communities
- Cooperation to bring together groups of producers or particular sectors or supply chains through collaboration and cooperation

Priority 6B fostering local development in rural areas;

- Building knowledge and skills in rural areas
- Support for tourism activities in rural areas.
- Investment in physical assets to support rural businesses to boost their economic sustainability and competitiveness.
- Focus more on job creation and business development in rural areas, including supporting basic services linked to growth and sustainable communities
- Cooperation to bring together groups of producers or particular sectors or supply chains through collaboration and cooperation
- Skills and knowledge transfer: potentially provide support to translate research into practice, and share good practice, and support for skills and training in rural areas.

Priority 6C enhancing accessibility to, use and quality of information and communication technologies (ICT) in rural areas

- Basic services with a focus on access to services, broadband investment, tourism and potentially on supporting renewable energy and village infrastructure projects.

7 Proposed Rural Development Programme schemes and measures

Investing in Rural England: improving the environment and supporting economic growth in rural areas

7.1 As outlined above, the Government's three primary priorities for the new Rural Development Programme are:

- **Improving the environment:** will be delivered via a new, more targeted environmental land management scheme. This will bring together a number of existing schemes into one scheme, building on and enhancing the current Environmental Stewardship (ES), the English Woodland Grant Scheme (EWGS) and the Catchment Sensitive Farming schemes and will account for around 87% of the programme;
- **Increasing the productivity and efficiency of farming and forestry businesses:** will be delivered by a new Farming and Forestry Productivity scheme focussing on improving business performance. This will include helping farmers and land managers to apply innovation and take up technology and knowledge transfer and providing them with advice and training. Investments will also be made through the LEADER approach;
- **Promoting strong rural economic growth:** will be delivered via agreement of Local Enterprise Partnership (LEP) investment strategies and LEADER local development strategies focusing on delivery of jobs and growth in rural areas.

7.2 The cross-cutting themes of innovation, the environment, and climate change mitigation and adaptation will be embedded across the programme schemes and measures.

Environment: Restoring, preserving and enhancing our natural environment

7.3 We intend to implement a new Environment Land Management scheme effective from 1 January 2016. This will be a multi-objective scheme contributing to the delivery of outcomes on biodiversity, soil and water issues; historic environment; landscape; genetic conservation and educational access. It would also retain the general aim of increasing the natural environment's resilience to climate change and helping it to mitigate climate change by reducing greenhouse gas emissions as well as providing and protecting carbon storage. Overall, biodiversity will be the biggest priority for the scheme, with the other main focus contributing to deliver of water quality objectives. Additionally, we will seek to maximise opportunities to deliver biodiversity, water quality flooding and other benefits together (synergies) wherever possible. The budget for new environmental scheme amounts to about £3.1bn over the six years of the next programme. £2.2bn of that (71%) is already accounted for by ongoing commitments which do not expire until part way through, or in some cases beyond, the next programme.

Scheme structure

- 7.4 The new scheme will bring together, as a single scheme, Environmental Stewardship, the Catchment Sensitive Farming approach and the English Woodland Grant Scheme. It will include all the elements necessary for an applicant to put together an agreement whether they are a farmer, forester or other land manager; conventional or organic. There will normally be only one multi-annual agreement per holding. However, there may be occasions where one multi-annual agreement for the agricultural part of the holding and another for the woodland component would be the preferred option for beneficiaries. A core principle of the new scheme is that agreement contracts are between the individual and the competent authority. It is that individual contract which determines obligations, responsibilities, payments and penalties under the inspection regime.
- 7.5 There will be a single menu of multi-annual and capital items, although some will not be available to certain land managers due to eligibility e.g. options available only for organic farmers. Forestry also has special requirements, for example, an approved Woodland Management plan will be required for most woodlands.

Priority sites offer

- 7.6 There is widespread evidence of the value of Higher Level Stewardship (HLS). We would propose to continue with similar arrangement in the new Environmental Land Management scheme through a priority sites offer, the so-called “upper tier”. It would be largely analogous to HLS and retain similar processes. Because of the bespoke nature of these types of agreements it would normally be by invitation only. Given the focus on designated and priority sites we might expect to see a high level of renewals from HLS. However, there would be no presumption that all current agreement holders would get agreements. Selection would reflect past performance and new policy priorities for the scheme.

Priority areas offer

- 7.7 The new approach seeks to deliver an improvement in environmental effectiveness from the current Entry Level Scheme (ELS) while retaining its affordability by minimising the involvement of specialist advisers from the delivery body. The aim is to get agreements in the right places with the right options in the right combination. To do this we will identify areas which present the best opportunities to deliver the scheme’s objectives and then score applications accordingly to secure the best quality “offers”. Effectively a “middle tier,” these agreements will be high quality individual applications addressing local priorities.

Capital Works

- 7.8 Investment in capital items can contribute to environmental land management objectives. All agreements, whether in the priority sites or priority areas offers, will be able to include a two year capital works plan alongside multi-annual scheme options.

It must be essential to the achievement of environmental outcomes of the overall agreement. The environmental benefit of including the capital works would be recognised in the scoring system.

Catchment Sensitive Farming approach

- 7.9 The programme will include capital grants required to deliver water quality benefits supported by advice to farmers. We are reviewing the Catchment Sensitive Farming (CSF) approach, which currently offers advice to farmers alongside capital grants funded under different components of the current Rural Development Programme. As we review CSF we will be looking to ensure any future scheme dovetails with the capital grants and multi-annual agreements offered under the new Programme.

Universal small scale grants

- 7.10 The scheme would also offer a limited range of capital options, restricted to those items that a reasonably competent and professional land manager, with supporting digital guidance, can deliver to the required standard. This implies a list composed of hedgerow laying, coppicing and gapping up, hedgerow trees, stone wall restoration and repair, earth bank restoration and casting up, bat boxes and Woodland Management plans (WMPs). This list is to be finalised as part of the implementation phase, taking account of the need to balance budgetary spend. We will want to ensure that this offer is simple, efficient and rapid in terms of the application, the funding decision and the payment process. The principle should be to maximise the environmental value of spend by quickly approving the grant and incentivising delivery on the ground. It would operate within the funding limits determined by EU rules on using a 'simplified scoring approach'. We currently envisage this ceiling being set at a maximum of £5,000 per investment.

Agreement duration

- 7.11 EU rules state that agreements should generally be undertaken for a period of five to seven years. However, where necessary in order to achieve or maintain the environmental benefits sought, Member States may determine a longer period for particular types of agreements extend them annually or renew as shorter length agreements. The new scheme will offer 5 year agreements, with the option of annual extensions for a further two years. This maximises flexibility; reduces the scope for significant budgetary commitment into the next programme and may reduce land manager uncertainty and administrative burdens during that transition.
- 7.12 Additionally, we will continue to offer 10 year agreements (and very exceptionally longer for where effectively permanent land use change is sought) in cases where this is clearly justified in recognition that different environmental benefits can be expected to be realised at different rates. As now, where 10 year agreements are offered they will include a 5 year break clause, which can be invoked by either party without financial penalty.

Identifying areas of opportunity

- 7.13 The new environment land management scheme will be a significant contributor to meeting the Government's environmental objectives. We also want it to deliver greater value for money for the taxpayer through having a more targeted and focused scheme. A targeting framework is currently being developed built up from a large number of datasets drawn from a range of sources and covering the scheme objectives. This data can be weighted to reflect particular priorities. We will produce a framework targeting map which clearly illustrates the areas where there is the best opportunity for delivery of multiple objectives and synergies. This will also identify areas where there may be only single objective priorities. These datasets and the resulting maps of priority areas will be used to produce targeting "statements" which can describe to applicants more precisely the priorities in their area.
- 7.14 Stakeholder engagement at the national and local level is a critical part of the targeting process. Work is progressing to incorporate further data and refine framework weightings and reflect decisions on prioritisation. This includes involving stakeholders and partners nationally and developing a process to engage with local interests (such as LNPs or the Catchment Based Approach) to help finalise the detail of the targeting methodology and its application. Stakeholders and partners will be increasingly involved in refining scheme targeting, firstly at a national level in early 2014 and then at a more local level in the spring. This engagement will help to refine the framework and ensure that targeting strikes the right balance between national priorities and local delivery.

Selection criteria

- 7.15 To ensure the choice of the right options are incentivised in the right areas selection criteria will need to be put in place alongside the targeting framework.
- 7.16 The priority site offer (the "upper tier") will effectively be by invitation, but the process will also include auditable assessment and scoring as required under the regulations. We will define and agree these criteria with stakeholders. The intention is to use a system analogous to the current HLS selection system. In practical terms this will mean that expiring ES and EWGS agreements will be reviewed nationally against the agreed criteria to generate a pipeline and prioritised list. The prioritised list will be generated each year from a 'pool' which would include both agreements under HLS and EWGS that are expiring in the year preceding the January start date and any other candidate sites which have been identified by stakeholders, delivery body advisers or other suitably qualified individuals.
- 7.17 Sites on this list would be invited to apply and, subject to their applications meeting the agreed criteria and passing quality control checks, they would be offered agreements. There would be no assumption that any existing HLS agreement would be offered a new agreement automatically. Existing agreement holders who are not

invited to apply under the priority site offer will be advised in sufficient time to submit an application under the priority areas scheme.

7.18 Under current Entry Level Stewardship (ELS), applicants can choose any option irrespective of their area, as long as they meet the qualifying points threshold to secure an agreement. Priority area agreements (mid-tier) would instead be expected to respond to the opportunities identified in their area through a national targeting framework. All individual applications would be scored on objective criteria. Those applications with the highest scores would be offered agreements. The implementation phase will need to establish a minimum threshold, define the criteria used and the weightings to be applied. However, key principles are likely to include the ability to discriminate between applications; be simple, transparent and robust enough to manage the anticipated application volume within the timeframes defined for the scheme and meet customer service expectations.

7.19 We will work closely with partners and stakeholders to develop a process which is as straightforward and effective as possible section criteria which are fair and ensure we can deliver the right outcomes.

Coordination

7.20 The EU rules explicitly recognise the scope for collaboration through a new cooperation measure. It is a flexible measure with a focus on among other things environmental projects; environmental and forestry plans and pilots. It could support feasibility studies; preparation of management plans and facilitation and implementation of projects over the life of a commitment.

7.21 We will rely primarily on a more targeted regime and directing option choice as the primary means to ensure the right options are selected in the right areas at a “landscape” scale. However, we will also offer competitive access to a facilitation fund for a number of specific projects which encourage co-operation for groups or clusters of farmers, land managers and other local partners in areas that are consistent with the targeting maps being drawn up. We will continue discussion with stakeholders and other partners to develop this cooperation concept based on the principles of Nature Improvement Areas (NIAs) which have already been operating domestically for some time. However, particular objectives of this funding will be to ensure there is co-ordinated delivery across land holdings and at sufficient scale to deliver our environmental outcomes and supporting and empowering farmer led approaches.

Advice

7.22 The new Rural Development Regulation requires Member States to endeavour to ensure that agreement holders are provided with the appropriate knowledge and information required to implement funded operations, including relevant expert advice. In the new scheme the advice for priority site agreements (upper tier) will be similar to the current HLS. The required actions and management on these sites are

often complex, potentially costly and therefore justify the specialist support and advice which can be provided by the delivery body.

7.23 Replacing Entry Level Stewardship with agreements which are more targeted, both spatially and in terms of policy priorities, with more directed choice of management options means that it will no longer be necessary to have a contracted advice stream to promote the choice of the most appropriate options. However, in principle applicants who form groups at application stage should be able to draw down further funding for on-going advice from trusted third party support as a scheme option.

7.24 There is already significant private sector advisory activity. In forestry this advice is privately funded. It will be important that publically funded advisory support in RDP does not crowd out the development of this market. There will also be continuing provision of contracted advice as part of delivery of the Catchment Sensitive Farming approach.

Entry requirements

7.25 While the scheme cannot pay for activities to meet regulatory requirements such as on pesticides or fertilisers (the legal baseline), there is merit in setting a clear and common environmental baseline for scheme entry, providing this does not act as a significant disincentive to applicants by requiring them to undertake works for which they are not compensated.

7.26 The following entry requirements are likely to apply to the scheme:

- maintain for the duration of the agreement features as set out on a farm environment record, without damage or removal;
- cut hedges no more than once every two years;
- restrict hedge cutting to specific times of the year to protect berry production/nesting birds;
- maintain all hedges/ complete walls in good, stock proof condition;
- protect historic assets;
- avoid under-utilisation over the whole farmed area;
- retain existing informal public access on the holding.

7.27 We will use the following Measures under the Environmental Land Management scheme:

Measure 10: Agri-environment – climate

Article 28 of Council Regulation 1305/2013

7.28 This will be the primary measure for delivering environmental land management priorities. These priorities will build on and enhance the environmental schemes that have been delivered in England since the 1987 Environmentally Sensitive Areas

Scheme through to the Countryside Stewardship Schemes and the expansion of agri-environment that took place through Environmental Stewardship that was offered in the previous Rural Development Programme for England 2007-2013.

- 7.29 The activities funded under this measure will contribute to meeting England's Biodiversity 2020 goals and the legal obligations under the Habitats and Species Directives. Priority will also be given to enhance and protect soil and water quality and will deliver other objectives on landscape, flood management, historic environment, educational access and genetic conservation.
- 7.30 Climate change is projected to have a wide range of impacts on the natural environment. As such climate change adaptation and mitigation will remain overarching objectives. Activities, including those around water, biodiversity and soils will be carried out with consideration of projected climate impacts and in such a way as to increase resilience to climate change. For example climate change adaptation and mitigation will both be supported through the protection and restoration of peatlands with the associated wider benefits for water quality, soils and biodiversity.

Measure 8: Investments in forest area development and improvement of the viability of forests

Article 21 of Regulation (EU) No 1305/13

- 7.31 This measure will be used to support an increase in afforestation of both agricultural and non-agricultural land. This will have a number of benefits including significant biodiversity ones, particularly if semi-natural woodland is involved. Woodland creation in appropriate locations supported under this measure should also achieve water management and water quality objectives, including tackling diffuse pollution through both barrier and interception functions. Riparian and floodplain woodland supported would help protect river morphology and moderate stream temperatures. Afforestation of soils susceptible to erosion would also help reduce sedimentation. Funding will help support the creation of a network of small areas of woodland in landscapes otherwise devoid of existing woodland cover and help benefit many species of invertebrates and vertebrates.
- 7.32 In recent years the number of new pests and diseases and severity of impact on individual trees and forest areas appears to have increased. Support may also include reducing the likelihood of spread of pests and disease, such as the removal of host species for some pathogens e.g. rhododendron in areas where *Phytophthora* is present, and removal of young ash infected with *Chalara*, and in these cases support will be provided. However, whilst a well-targeted approach to pest and disease control may sometimes be effective, for example controlling grey squirrels where they are a threat to remaining red squirrel populations, in general widespread control is rarely possible or viable. Where significant reduction in forest potential has resulted from pests or diseases, restorative action, particularly regeneration with alternative species, may be supported.

7.33 A range of forestry management operations to improve climate change adaptation, including restocking to change forest structure through species diversification, will also be supported. Specific support will be provided to encourage restoration of “native species” where the appropriate mechanism would be restocking following felling.

Measure 15 Forest environmental and climate services and forest conservation

Article 34 of Regulation (EU) No 1305/13

7.34 As detailed under Measure 8, restoration of plantations on ancient woodland sites to native species could greatly enhance biodiversity values of those woodlands. Support under this measure will be provided when such conversion is achieved through the gradual removal of non-native species through selective felling and subsequent regeneration with native species.

7.35 Many of the broadleaved woodland areas of England are not providing ecosystem services to their potential; they could be enhanced through improved silvicultural practices. This measure will therefore be used to support the introduction of management systems that will lead to an improvement in the environmental value of such woodlands.

7.36 As climate change is the most significant threat to the ability of woodlands to continue to deliver ecosystem services there is a need to encourage the introduction of lower impact silvicultural systems that will lead to increased resilience through adaptive management.

Measure 16: Co-operation

Article 35 of Council Regulation 1305/2013

7.37 This measure will be used to promote collaborative approaches to the delivery of our environmental objectives. It will contribute to “landscape scale” outcomes in the new Environmental Land Management scheme supporting our priorities for the environment, by bringing farmers, foresters and other land managers together.

Measure 2: Advisory services, farm management and farm relief services

Article 15 of Regulation (EC) No 1305/2013

7.38 This measure will be used to provide advice alongside capital grants for delivery of water quality benefits.

Measure 4: Investments in physical assets

Article 17 of Council Regulation (EC) No 1305/2013

7.39 This measure will be used to invest in physical assets, both productive and non-productive, to take forward our environmental objectives under the programme, which we will implement primarily under the main Agri-Environment Climate and Forestry measures as well as investments to support capital grants required to deliver water quality benefits.

Measure 7: Basic services and village renewal in rural areas

Article 20 of Regulation (EC) No 1305/2013

7.40 This measure will be used to deliver educational access, encouraging visits to farms for educational purposes, so that the public get a greater understanding of the countryside and rural areas. It will also be the main measure for delivery of the renovation and maintenance of historic and traditional farm buildings.

Measure 11: Organic farming

Article 20 of Regulation (EC) No 1305/2013

7.41 This measure will be used to support farmers who wish, on a voluntary basis, to convert to or maintain organic farming practices and methods. For this purpose, “organic” farming is defined in Regulation (EC) No 834/2007. Delivery of support will be via the main environmental land management scheme described above.

Productivity: Increasing the competitiveness and efficiency of our farming, forestry and land-based sectors

7.42 The new Farming and Forestry Productivity scheme will support long-term productivity improvements by focussing expenditure on improving:

- the rate of innovation, technology diffusion, and knowledge exchange;
- business competitiveness and supply chain relationships;
- resource efficiency and management ;
- animal health and welfare

7.43 The programme will build on the lessons learned from the current Farming and Forestry Improvement Scheme [FFIS], Rural Economy Grant [REG] scheme and national Skills Framework, but will place more emphasis on supporting innovation and delivering clear growth and productivity improvements targeted in the farming and forestry sectors. The scheme will tie productivity improvements to solving environmental externalities such as diffuse water pollution or air quality issues.

7.44 Support will focus on the following key areas:

- **Innovation, technology diffusion and knowledge transfer:** creating the right conditions for the development and translation of new technologies and practices

within the farming and forestry sectors is one of the strongest drivers of long-term productivity. We want to support the translation of research into the field, facilitate the exchange of knowledge, and increase the uptake of the latest technology and practice. There will be a strong link to the UK's £160 million Agricultural Technologies Strategy, where we see productivity funding as the financial bridge between theory and practice, led by demand from within the farming sector. This will mean funding for physical assets, the latest training and industry advice, and facilitating discussion groups and other forms of knowledge transfer.

- **Farm competitiveness and supply chain relationships:** supporting farmers to improve their competitiveness and as a result reduce their dependency on subsidies. We want to increase take up of effective business practices, improve awareness of local and national supply chains and marketing opportunities to enable farmers to increase their responsiveness to and success in the market place. We will ensure that we offer support to those new entrants who are in the early years of building their farm businesses. We are also considering how new entrants can best access broader support for competitiveness and offer specific business start-up support within this.
- **Woodland Enterprise and Supply Chain:** we will address the lack of active woodland management by supporting market based actions that will reduce dependency on government intervention and support wider rural growth and stimulate the supply of woodfuel. Help to reduce damage caused by increasing deer populations will also be supported through the development of a supply chain for venison.
- **Resource efficiency and management:** we will support an improvement in the ratio of farm key inputs such as fertiliser, energy and water, to outputs by targeting beneficial infrastructure, technology, practices and knowledge exchange mechanisms. We will support improved water storage, rainwater harvesting, irrigation, drainage and water recycling. This will include continuing the approach developed within the Catchment Sensitive Farming Scheme to support farmers in reducing diffuse water pollution. We will encourage more efficient energy use in order to reduce farm costs and carbon dioxide emissions. We will support improved slurry use and storage to improve soil quality and reduce reliance on artificial fertilisers, and we will support a reduction in ammonia emissions.
- **Animal Health and Welfare:** we will improve overall animal health and welfare with an emphasis on tackling endemic animal disease, through better risk management, animal husbandry and training. We will support improved knowledge transfer and increased awareness in relation to for example biosecurity measures.

Delivery mechanisms

7.45 Support will be delivered through:

- a. **A grant based approach** to capital and co-operative activity along with a possible loan scheme still under consideration. The farming and forestry industries are familiar with grant based support in these areas, although we will be seeking to shift some emphasis more towards support for projects delivering multiple benefits, for example projects which tackle environmental problems or animal health issues alongside improving agricultural or forestry output or efficiency.
- b. **Support for skills, training and advice** We will increase the emphasis in the Programme on improved acquisition of skills, focusing on sector specific technical farming or forestry skills, as well as business management training with an industry specific focus. We will consider new and more flexible mechanisms for delivering training that will provide the most substantial impact on industry performance and ensure that support is accessible to those who will be able to improve their performance most substantially as a result. Particular focus will be placed on developing the knowledge and capacity of businesses to take up innovation in terms of business practice, new technology and application of research. Support for training will also be targeted at farm and forestry business managers to enable them to equip their staff to generate greater benefits from grant funding.
- c. **Implementing the European Innovation Partnership for agricultural productivity and sustainability:** Research shows that innovation is a key driver of productivity and the needs analysis above has already identified the need to strengthen the application of research into practice, and to improve the number and reach of groups to co-ordinate this. We will use Rural Development Programme funding for innovation to bolster investment already made in the UK to accelerate application of research, and expect to fund European Innovation Partnership (EIP) Operational Groups to help to do this.

The European Innovation Partnership

7.46 We expect the EIP in England to work in three key stages:

Setting up Operational Groups – bringing participants together and inviting them to apply with project plans.

7.47 Operational Groups should form around an interest in solving a particular issue or problem, and consist of relevant producers, researchers, NGOs, advisers and/or others. The farmer or producer is expected to be the main driver in determining the topic to be examined by the Group. While in some cases, farmers may have strong links with these other actors it is likely that this is not ubiquitous. Therefore, we expect that some input will be needed to connect producers with researchers and others who are interested in exploring the same issue or topic. This may be done by funding an individual or individuals or an organisation to act as a contact point and make the links – an ‘Innovation Broker’. The Innovation Broker may be supported by virtual communications such as a website and a database.

7.48 Operational Groups will need to apply for funding to the Managing Authority by presenting a project plan. We expect that calls will go out for project plans and will determine the frequency and format. The role of the Innovation Broker could include helping Operational Groups develop and finalise their plans.

Operational Group conducting the project

7.49 Rural Development Funding may not be used to fund original stand-alone research. Projects may therefore focus on applying existing information in practice or testing out an approach on a small scale in a pilot and Rural Development Programme funding will be used to help bring the Group together and conduct the project. The Group may apply for other funding to support any new research they undertake. The Innovation Broker could continue to support the Group through facilitating meetings.

Dissemination of results of the Operational Group's project

7.50 Sharing the results of projects is an important part of the EIP. The EIP network, based in Brussels, has already been set up by the European Commission and offers a ready-made route for sharing results throughout Europe. In addition, we expect that results from Operational Groups will be shared nationally.

Targeting

7.51 We expect the productivity scheme to be open for applications from 1 January 2015. Funding will support productivity improvements through a combination of grant or loan funding for equipment, infrastructure, assets and cooperative activity, training courses, advice provision and for co-operation established under the European Innovation Partnership mechanism.

- Our evidence suggests that public funds will go further when supporting activities with multiple participants so funding will be available for groups of recipients. Funding will also be applied in several ways:
- to applicants who apply to a grant scheme in line with identified needs, seeking specific types of support;
- to applicants who apply for grant funding, proposing innovative projects that require a more substantial assessment and may include ideas that have not been 'pre-identified';
- through a Government procured process, whereby the delivery body approaches individuals or coordinators seeking interest from those who feel able to address specific identified productivity challenges identified within Government,

7.52 Due to the limited amount of funding available, targeting will be an important way of making productivity funds go further. We will strengthen the criteria for what constitutes an 'innovative' project and will improve the way in which government is advised on what constitutes innovation within a particular sector. Funding will support

the aims of the UK Agricultural Technologies Strategy and we will consider how best to align productivity funding with the new Centres of Innovation initiated as a result of the strategy. We will also make links with the Defra led Sustainable Intensification Research Platform to ensure a sound link between evidence gathering and scheme delivery.

7.53 Further targeting will be dictated by the nature of the problem the application is looking to solve. For example, water efficiency projects could be favoured or limited to areas of greater drought risk or flooding, or an application for a piece of equipment to improve competitiveness might be limited to certain sectors or business performers.

7.54 We want to make sure that the right support reaches the right business, so businesses lacking basic skills or infrastructure, for example, are unlikely to be successful in applying for the latest high-tech equipment.

7.55 We will use the following Measures under the Productivity scheme:

Measure 1: Knowledge transfer and information actions

Article 14 of Regulation (EC) No 1305/2013

7.56 This measure will be used to raise the level of skills and knowledge in the farming and forestry sectors. The skills offer will also contribute to our environmental and resource efficiency priorities. Training and knowledge transfer activity will be offered to farmers and foresters to develop their business and industry specific technical skills, including environmental skills, thus enabling sustainable development of their businesses.

7.57 Training for producers, acquisition of skills and sharing knowledge in both the farming and forestry sectors is expected to create the right conditions for innovation to thrive. Specific training in new technology processes, and business management will also contribute to the innovation objective.

Measure 2: Advisory services, farm management and farm relief services

Article 15 of Regulation (EC) No 1305/2013

7.58 The advice measure will be used alongside grant provision to help provide support for farm modernisation, competitiveness, innovation, and cooperation.

Measure 4: Investments in physical assets

Article 17 of Council Regulation (EC) No 1305/2013

7.59 This measure is to be used for a considerable proportion of the support for farm productivity. Investments made will support the overall performance of the farm holding, with a focus on improvement in productivity, sustainability and modernisation of the business. The investment will contribute to development of farm businesses specifically, but more generally will contribute to the growth of the rural economy.

7.60 Investment may be made into equipment, storage facilities, technological improvements, software, robotics, infrastructure, and animal and plant breeding technologies.

Measure 6: Farm and business development

Article 19 of Regulation (EC) No 1305/2013

7.61 This measure may be used to support for new entrants into farming, with a view to helping them establish the capital needed to build their business and careers in the early years, when it can be most difficult for them to secure private finance as a result of not being able to demonstrate a track record of sustained performance.

7.62 Similarly it may be used to support businesses who establish themselves to provide support to farm owners or tenants, for example those who establish themselves as farm contractors.

Measure 8: Investments in forest area development and improvement of the viability of forests

Article 26 of Regulation (EU) No 1305/13

7.63 At present only about 40% of the annual increment of England's woodland is harvested and that from broadleaved woodlands is considerably lower, there is therefore the potential to significantly increase wood and timber production. One reason for this lack of production is the lack of economic viability due to low value of wood and timber and the relatively high cost of management activity. Improving economic viability is likely to lead to increased woodland management. Prices for both coniferous and low grade hardwoods have increased in the last few years, the latter in response to a growing demand for woodfuel, but a supply chain needs to be re-established. Support will therefore be provided to improve the economic viability through mechanisation and supply chain development.

7.64 We will also provide support for the venison supply chain to provide an economic benefit from a resource largely managed through publically funded culling. This will also provide benefits for woodland biodiversity and help to alleviate some of the damage caused by intensive deer browsing on agricultural and forestry land.

Measure 16: Cooperation

Article 35 of Regulation (EU) No 1305/13

7.65 This measure will be used to encourage and promote a range of cooperative activity. This will help farmers, private businesses and public bodies, or actors in supply chains to work together to take forward priorities for investment and overcome disadvantages of fragmentation. The measure will be used to develop short supply chains; as well as cooperation and collaboration. We will also use this as the main measure for implementation of the European Innovation Partnership (EIP) for Agricultural productivity and sustainability.

Growth: Delivering rural economic growth

The European Structural and Investment (SI) Funds Growth Programme

7.66 EAFRD is one of four European Structural and Investment (SI) Funds (together with ERDF, ESF and EMFF). These funds are being brought together to promote smart, sustainable and inclusive growth across the EU, under the Common Provisions Regulation. A Partnership Agreement will set out, at UK level, how these funds will be allocated and managed to deliver national priorities. In England, ERDF, ESF and a proportion of EAFRD have been aligned in an integrated SI Funds Growth Programme.

Contribution to Rural Development priorities

7.67 The scheme will primarily deliver against Priority 6: promoting social inclusion, poverty reduction and economic development in rural areas. It will particularly focus on Focus areas 6A: facilitating diversification, creation and development of small enterprises and job creation; and 6B: enhancing accessibility to, use and quality of information and communication technologies in rural areas.

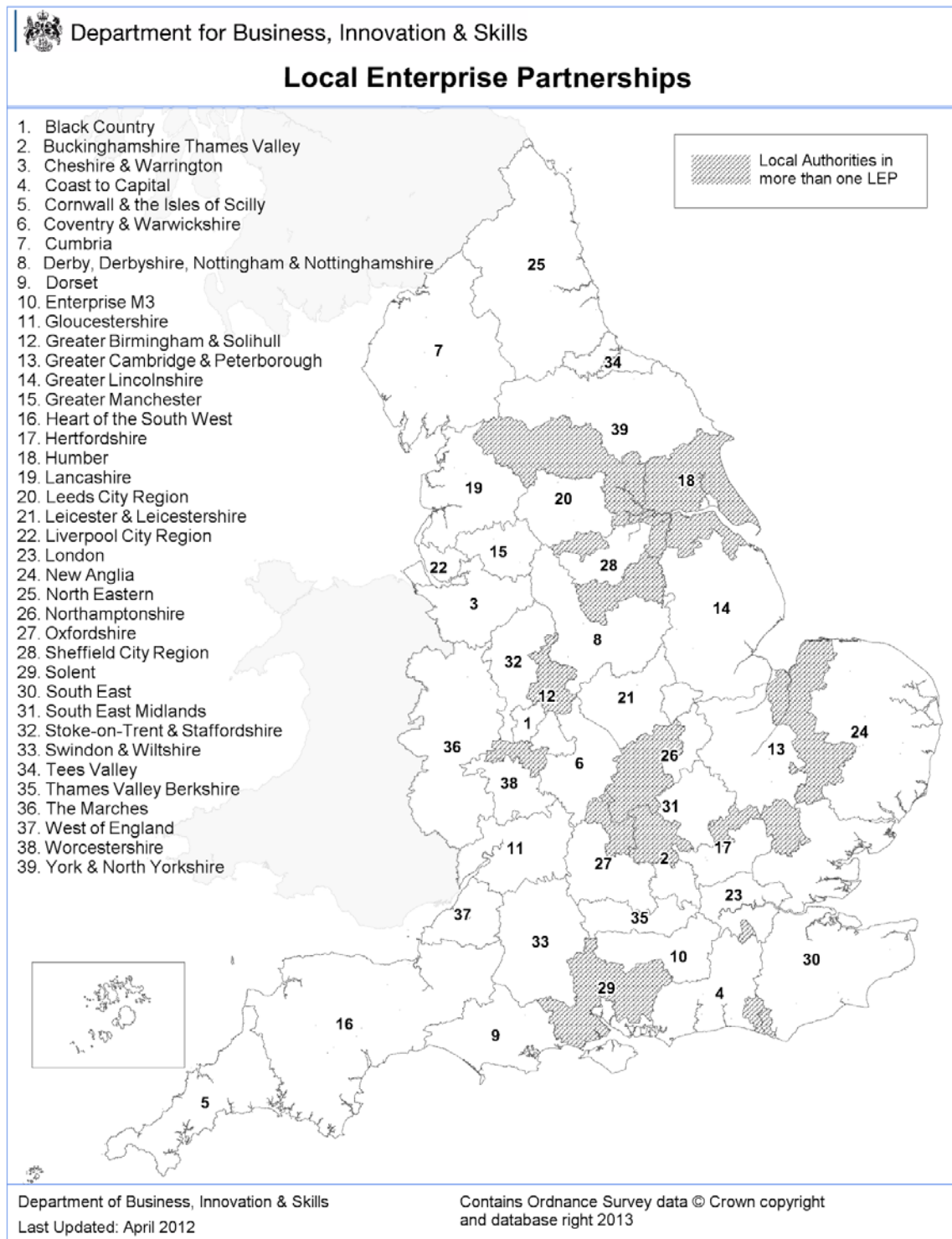
7.68 In addition, it will deliver against Priority 1, Focus area 1A: fostering innovation, cooperation and the development of the knowledge base in rural areas.

Locally driven investment strategies

7.69 The Government believes that growth will be most successfully delivered by identifying gaps and barriers at a local level; and by involving local partners in defining actions needed to overcome them. 39 Local Enterprise Partnerships (LEPs) in England are currently drawing up local strategies for investment of SI Funds, in alignment with their wider Strategic Economic Plans. Defra has allocated five per cent of its Rural Development Programme budget for 2014-2020 to contribute to the SI Funds Growth Programme delivered through LEPs.

7.70 The following map shows the 39 LEP areas in England:

Map 2: Local Enterprise Partnerships



Scheme targeting

7.71 Growth funding has been pre-allocated to LEP areas on the basis of need, mostly by rural population but also other factors such as population density and the productivity of the LEP area. The allocations are set out in **Table 14** below.

Table 14: Allocations to Local Enterprise Partnerships in England, 2015-2020

European Agricultural Fund for Rural Development (EAFRD)		
Local Enterprise Partnership	Total EAFRD allocation in Euros (€)	Indicative¹ Sterling equivalent (£)
Black Country *	-	-
Buckinghamshire Thames Valley	1,978,506	1,584,177
Cheshire and Warrington	3,113,051	2,492,600
Coast to Capital	4,790,449	3,835,682
Cornwall and the Isles of Scilly	11,735,604	9,396,623
Coventry and Warwickshire	3,410,165	2,730,498
Cumbria	11,558,824	9,255,077
Derby, Derbyshire, Nottingham and Nottinghamshire	7,562,360	6,055,134
Dorset	3,772,150	3,020,337
Enterprise M3	5,578,652	4,466,791
Gloucestershire	3,613,607	2,893,392
Greater Birmingham and Solihull	1,425,255	1,141,193
Greater Cambridge & Greater Peterborough	9,236,676	7,395,748
Greater Lincolnshire	10,968,229	8,782,191
Greater Manchester	524,037	419,593
Heart of the South West	19,408,588	15,540,333
Hertfordshire	1,899,304	1,520,761
Humber	2,674,261	2,141,264
Lancashire	5,358,208	4,290,283
Leeds City Region	6,535,551	5,232,974
Leicester and Leicestershire	3,820,712	3,059,220
Liverpool City Region	424,626	339,995
London *	-	-
New Anglia	16,255,751	13,015,876
North Eastern	13,101,021	10,489,904
Northamptonshire	2,780,893	2,226,644
Oxfordshire LEP	3,488,507	2,793,225
Sheffield City Region	3,105,913	2,486,885
Solent	1,764,279	1,412,647
South East	18,069,267	14,467,947
South East Midlands	5,345,100	4,279,788
Stoke-on-Trent and Staffordshire	3,905,009	3,126,716
Swindon and Wiltshire	4,871,594	3,900,654
Tees Valley	1,374,875	1,100,854
Thames Valley Berkshire	1,405,133	1,125,081
The Marches	9,314,191	7,457,814
West of England	1,787,764	1,431,451
Worcestershire	2,800,816	2,242,595
York and North Yorkshire	12,299,406	9,848,056
Total England	221,058,333	177,000,000
1 Indicative, subject to exchange rate applicable (rate used here £1 = €0.8)		
* Nil allocation owing to a de minimis threshold of 1% of the total population being in rural areas		

Scheme structure

7.72 Rural Development Programme funding will be available to support local activity in four priority areas:

Building knowledge and skills in rural areas

7.73 The focus of activity supported under this priority will be on business related skills development, for example in relation to business management, marketing and exporting. This will complement activity supported under the Farming and Forestry Productivity Scheme, which will offer support for vocational skills related to land-based, agricultural and forestry operations. EAFRD funding will be expected to build on and add value to business skills development activity funded through the wider ESIF Growth Programme, reflecting in part the additional cost premium attached to delivery of skills and advisory services in rural locations.

7.74 Defra already operates a Skills Framework contract. This will be reviewed to determine whether it is fit for purpose as a vehicle for delivery of an enhanced business skills offer.

Funding new and developing micro, small and medium sized rural business

7.75 Businesses in rural areas suffer from a lack of agglomeration and general lack of connectivity which affects productivity and access to markets, while fragmented business networks can lead to lack of peer learning. These challenges are accentuated by lack of suitable business premises in many rural locations.

7.76 It is envisaged that this priority will be delivered through large, medium and small capital grants schemes to support the creation and development of micro and small sized rural businesses, including the uptake of new or improved business processes and technology. Match funding requirements will be set in relation to the scale of grants. Specific support will be targeted towards the development of food processing SMEs to provide additional local markets for Annex 1 products.

7.77 The option of delivering through loans is currently being explored, with a decision due in the next few months. The decision will be based on the efficiency of administering such a scheme, and cost-benefit in relation to capital grants.

Funding small scale renewable and broadband investments in rural areas

7.78 Lack of superfast broadband is a known barrier to growth for rural communities. There is a market failure in many rural communities due to high rollout costs and low population densities. The Government is investing £780m to provide 90-95% of premises with superfast broadband coverage by 2017, against a UK target of 95% of premises. An additional £10 million competitive fund will pilot innovative solutions to

identify ways of delivering superfast broadband services to the most difficult to reach areas of the UK.

- 7.79 It is envisaged that this priority would be used to provide capital grant support for investment in broadband infrastructure to communities (businesses and residents) located in the final hard to reach locations of each county (the final 5-10% of premises). Funding under this priority may also offer some small scale support for demand stimulation to encourage commercial investment and ICT skills training support.
- 7.80 The development of small scale renewable energy infrastructure offers the opportunity both to promote a potentially valuable economic sector within rural economy and to address the challenge of rural fuel poverty. A number of existing schemes, including Feed In Tariffs and the Rural Community Energy Fund, support work in this area. Capital grants offered by the Growth Programme would be deployed using the principle of additionality only where gaps in existing support are found to present a barrier to rural growth in this sector. In particular, EAFRD funding may be used to help communities meet the costs of feasibility work and securing planning permission, to overcome barriers to getting community energy schemes off the ground.

Support for tourism activities in rural areas

- 7.81 Funding under this priority will in particular target activities which support co-operation at a local level around the development of destinations through cultural, heritage and leisure attractions and activities, in particular those that benefit local supply chains and food businesses, and which will contribute to the overall attractiveness and accessibility of the destination. Greater flexibility will be built into the design of funding schemes in this area, as experience of development work to date has highlighted the challenges in getting such projects off the ground.

Scheme delivery

- 7.82 Taking a bottom-up approach, Defra will now work to develop national schemes for each of the priority areas in response to locally-determined demand. The intention is that schemes will offer a mix of grant funding and commissioned support, with the balance of these elements to be determined. Grant schemes will be operated at a national level by Defra as the Managing Authority for EAFRD funds, but the budget allocations available for grants schemes in individual LEP areas will be determined in line with LEP strategies.
- 7.83 Feedback from Government to LEPs on their draft strategies will be provided in March, with Government agreeing final strategies by mid June 2014. Defra will continue to work through its RDPE Delivery Teams to support and engage LEPs in the development and operation of the Growth Programme.

Complementarity

- 7.84 The RDP Growth Programme has clear links and synergies with other RDP Schemes, as well as with the wider ESIF Growth Programme and domestic investment initiatives.
- 7.85 Defra will work with other Government Departments and with LEPs to ensure that EAFRD funds are used to complement relevant skills and regional development activity within the European SI Funds Growth Programme, targeting gaps in other provision in relation to tourism, broadband and renewable investments; and helping overcome specific rural cost barriers in the delivery of business skills and advisory support.
- 7.86 Defra will also work to ensure that the wider European SI Funds Growth Programme makes a contribution both to rural growth and to Thematic Objectives around environmental protection, climate action and sustainable development; and that these are embedded throughout LEPs' local economic strategies.
- 7.87 Within the Rural Development Programme, the three Schemes supporting growth will work collectively to deliver the Government's objectives. Growth Programme funding will only be available to farming and forestry businesses in relation to non-agricultural activity (eg farm diversification). Support for skills development will be broadly split between technical skills development for agricultural and forestry (through FFPS) and generic business skills (supported through the Growth Programme). Defra will work with LEPs and LEADER Local Action Groups to develop guidance for practical collaboration at a local level.
- 7.88 We will use the following Measures under the Growth Programme:

Measure 1: Knowledge transfer and information actions

Article 14 of Regulation (EC) No 1305/2013

- 7.89 This measure will be used to raise the level of skills and knowledge in priority sectors in specific rural areas and will contribute to the EU's 2020 and the United Kingdom's strategies for growth by improving business competitiveness. Training and knowledge transfer activity will be offered to rural businesses to develop their business and specific technical skills.

Measure 2: Advisory services, farm management and farm relief services

Article 15 of Regulation (EC) No 1305/2013

- 7.90 This measure will be used to offer advisory support in relation to generic business issues (ie non-sector-specific advice – for example, business development, marketing, exporting).

Measure 6: Farm and business development

Article 19 of Regulation (EC) No 1305/2013

- 7.91 This measure will be used to provide support for the development and creation of rural small and micro businesses and also farm diversification activity where these investments are beneficial to the wider rural economy and contribute to the UK Government's growth agenda.
- 7.92 A focus for support to small businesses and micro-enterprises, including social enterprises, would include funding to encourage business networking to pool capital and human resources and to develop markets, including those in urban areas, along with innovative development of rural tourism, food chain linkages and renewable energy. These activities, particularly business networking will also encourage skills development and knowledge transfer.

Measure 7: Basic services and village renewal in rural areas

Article 20 of Regulation (EC) No 1305/2013

- 7.93 This measure will be used to contribute to our aims of developing a more thriving and resilient rural economy and communities and to enhance landscape quality and character. We propose to meet the challenges specific to rural communities which suffer economic, geographic and demographic factors relating to distance, population scarcity, aging, social isolation and market structure that can impact on people's lives. Distances from economic centres and essential services and limited local amenities create additional challenges. Investments through this measure aim to alleviate some of these difficulties particularly the lack of access to services and the provision of infrastructure, such as access to ICT. There will be support for cultural, heritage and tourism activities that benefit the local economy and increase services for visitors and the local community.

Measure 16: Cooperation

Article 35 of Regulation (EC) No 1305/2013

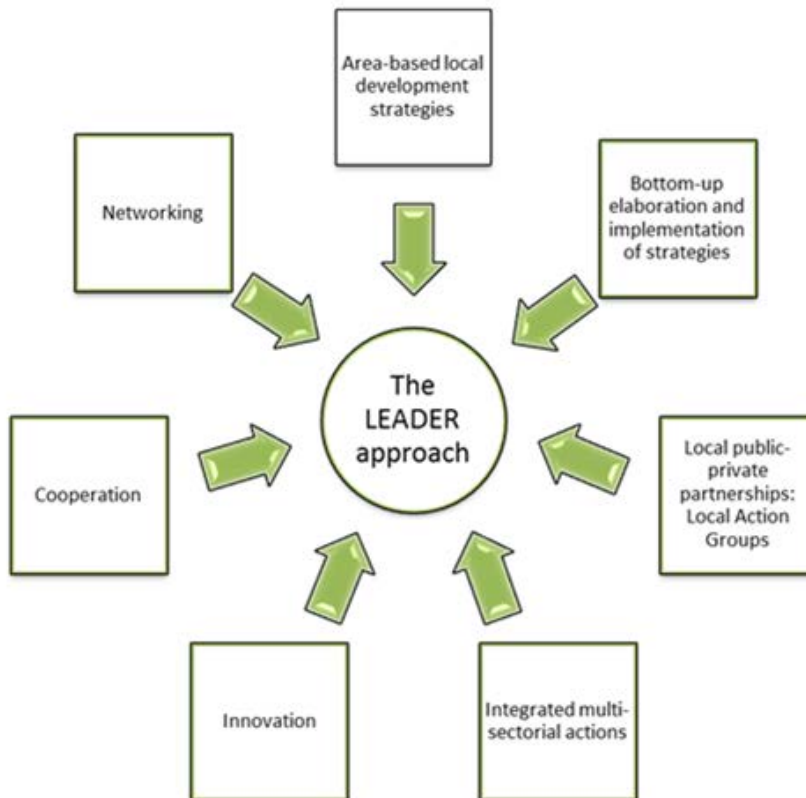
- 7.94 This measure will be used to support both small and micro-business development and tourism priorities. We propose to make funding available for the creation of business networks. We will also support local co-operation in relation to tourism activities that improve the attractiveness of the overall destination and help develop the supply chain in the visitor economy, for example in relation to food and drink.

LEADER: helping to deliver jobs and growth in rural areas

- 7.95 LEADER is based on seven principles – all of which must come together for it to be successful. The implementation of LEADER in the next programming period (2014-

2020) will seek to refocus on the fundamental building blocks of the approach. Using our experience of previous programmes we want to make LEADER work even better.

7.96 Figure 1 – The seven principles of LEADER



7.97 We are setting out our requirements and expectations in a National Delivery Framework. We believe this will give LEADER Local Action Groups the right level of guidance in order for them to approach their work with the confidence and capability to develop and deliver projects that address local priorities, whilst at the same time contributing to national programme objectives and meeting regulatory requirements. It will cover a broad range of issues including more detailed information on policy priorities, roles and responsibilities, geographic coverage and also the open and competitive selection process. We will set this out in the finalised document we submit to the Commission in a few months.

7.98 LEADER in the next Rural Development Programme will have a much greater focus on supporting rural jobs and growth. In terms of the overall balance of expenditure for LEADER, we envisage that nationally 70% of all projects must directly support the rural economy. This could for example be through creating and developing small and medium sized rural businesses. The remaining 30% of projects must also demonstrate that they too are making a contribution to improving the local rural economy, by, for example projects which increase visitors to a particular area thereby increasing spend on local rural business and services.

7.99 The main priorities for investment through LEADER will be:

- Support for micro and small enterprises and farm diversification
- Support for increasing farm productivity
- Support for rural tourism
- Support for increasing forestry productivity
- Provision of rural services
- Support for cultural and heritage activity

7.100 We will seek to achieve a more even distribution of the £140 million budget across LEADER groups in the next programme. We are currently working on a methodology which will provide prospective LEADER groups with an indicative funding allocation as early as possible and to inform the Local Development Strategy (LDS).

7.101 We have previously set out an ambition of increasing the geographical area covered by LEADER. Now that we know that the budget will be similar to the current Rural Development Programme we will have to consider to what extent this will be possible. However we do expect changes will occur at the local level, which may in turn lead to slight adjustments in the overall coverage. We are also undertaking some additional analysis of LEADER areas, in response to the 2011 census data and the revised maps for rural England. We will also look to secure a derogation to increase the upper population limit for LEADER, as part of the UK Partnership Agreement.

7.102 We are also planning an opportunity for those LEADER groups who can demonstrate a need to incorporate further changes to their geographic coverage (including into non-LEADER 'white' areas) to receive a small 'top up' to their existing allocation of LEADER transition funding to cover additional costs. This will also be the opportunity for any new areas that might want to apply to become LEADER groups to bid for a package of preparatory support. More information will be published separately.

7.103 Working with Local Enterprise Partnership(s) (LEPs) is also important. Ministers have said that they will ensure that there is a meaningful role for LEPs to help deliver growth through all of the growth related elements of the new Programme. Our expectation is that LEADER groups and LEPs will work together to develop and agree rural economic elements of a Local Development Strategy to ensure that LEADER activity complements wider LEP economic activity.

7.104 Some of the final LEP ESIF strategies include proposals to use ESIF funding to support LEADER groups in their area. We must ensure that any movement of funding between LEPs and LAGs is both in accordance with the controlling regulations and also consistent with other allocation processes.

7.105 In order to deliver our policy objectives, meet our 5% spending targets and commitment to reduce delivery costs, Defra will retain a direct relationship with LEADER groups in the new RDP. This will involve local Defra staff working closely

with LEADER groups to support and guide all aspects of delivery, performance management, verification and control.

7.106 The new Common Provisions regulation allows for up to 25% of a LAG's allocation to be spent on management and administration costs. In the current programme this has averaged out at approximately 17%. We are looking for further reductions to this figure, but only where this won't impact on projects and verification and control requirements. This will enable a greater proportion of LEADER funds to reach projects.

Co-operation

7.107 A LAG can develop 'inter-territorial' cooperation with another partnership located in the same region or devolved administration. 'Trans-national' cooperation projects can also be carried out across national borders giving supplementary European added value to local development. We anticipate co-operation activities will follow a 70% economic / 30% community LEADER profile.

7.108 Later in 2014 we will be publishing a UK wide approach to co-ordinating LEADER co-operation activities in the next programme. This will include an approach facilitated in England by the RDPE Network, who will make bi-annual calls for co-operation activities (both inter-territorial and trans-national), assess proposals and offer financial support from a central co-operation funding pot. The RDPE Network will also act as a broker with other NRNs in the UK and also across other Member States through the ENRD contact point. All LEADER groups will be encouraged to participate in at least one co-operation visit during the programme.

7.109 We would expect the following types projects to be supported based on the following priorities and budgets for LEADER:

Priority	Suggested % of budget	Example Project Types
Support for increasing farm productivity Measure 4: Investments in physical assets Measure 6: farm and business development	20%	<ul style="list-style-type: none"> • Improve the overall performance and sustainability of the agricultural holding • Investments to support animal health and welfare improvements • Processing, marketing and/or development of agricultural products • Modernisation or adaptation of agriculture and forestry, including access to farm and forest land and the supply and saving of energy and water
Support for micro and small enterprises and farm diversification Measure 4: Investments in physical	40%	<ul style="list-style-type: none"> • Business start-up aid • Construction or establishment of workshops, factories, premises and facilities • Purchase of Equipment (not consumables) • Processing and marketing of products

Priority	Suggested % of budget	Example Project Types
assets Measure 6: farm and business development		
Support for rural tourism Measure 4: Investments in physical assets Measure 6: farm and business development Measure 7: basic services and village renewal in rural areas	20%	<ul style="list-style-type: none"> • Accommodation upgrades – based on an understanding of the market in the local area • Use of IT and e-booking systems • Support for new shops, catering services, restaurants & cafes or extension of existing services linked to supply chain development • Investments in green infrastructure – cycle ways, paths, and linking this to other offers • Signage and interpretation – linked with local food and drink and the natural / built environment • Visitor attractions and promotion, including product development and interpretation for visitors • Support for events and festivals
Provision of rural services Measure 4: Investments in physical assets Measure 7: basic services and village renewal in rural areas	5%	<ul style="list-style-type: none"> • Plans for the development of municipalities, and villages in rural areas and their rural services • Creation, improvement or expansion of all types of small scale infrastructure, including investments in renewable energy • Setting-up, improvement or expansion of essential rural services for the local community
Support for cultural and heritage activity Measure 7: basic services and village renewal in rural areas	5%	<ul style="list-style-type: none"> • Enhancement, restoration and upgrading of the cultural and natural heritage of villages, and rural landscapes and high nature value sites • Conservation of small scale built heritage • Enhancement of cultural and community activities and investments to enhance venues providing cultural and heritage activity • Support for events linked to cultural activity
Support for increasing forestry productivity Measure 4: investments in physical assets Measure 6: farm and business development Measure 8: Investments in forest area development and improvement of the viability of forests	10%	<ul style="list-style-type: none"> • New forestry technologies, processing, mobilising & marketing of products. • Enhancing forestry potential or relating to processing, mobilising & marketing adding value to forest products • Supporting the development of wood fuel supply chains • Provision of woodland advisory services to forest owners. – to put in place management plans

Annex A: Budget breakdown

Environment	Total
	£3,080.00m

Ongoing Environmental Stewardship Commitments		£2,053.14m
[RD] art 17	4	investments in physical assets
		£71.50m
[RD] art 28	10	agri-environment-climate
		£1,981.64m
Total		£2,053.14m

Ongoing English Woodland Grant Scheme Commitments		£102.00m
[RD] art 21	8	investments in forest area ... and improvement of the viability of forests
		£96.10m
[RD] art 34	15	Forest environmental and climate services and forest conservation
		£5.90m
Total		£102.00m

New Environment Land Management scheme:

New Agri-environment climate and Forestry commitments		£924.86
[RD] art 15	2	knowledge transfer and information actions
		£15.00
[RD] art 17	4	investments in physical assets
		£146.53
[RD] art 20	7	basic services and village renewal in rural areas
		£22.30
[RD] art 21	8	investments in forest area ... and improvement of the viability of forests
		£94.00
[RD] art 28	10	agri-environment-climate
		£586.33
[RD] art 29	11	organic farming
		£12.00
[RD] art 34	15	Forest environmental and climate services and forest conservation
		£15.70
[RD] art 35	16	Cooperation
		£7.20
[RD] art 51	20	Technical Assistance (includes Monitoring & Evaluation across programme and staff advisory capacity for new scheme)
		£25.80
Total		£924.86m

Summary		£3,080.00m
Total		£3,080.00m

*Note these are nominal values in £ and are based on assumptions of uptake

Farming and Forestry Productivity			Total
			£141.00m

Farming innovation, technology and knowledge exchange			£48.25m
[RD] art 14	1	knowledge transfer and information actions	£11.25m
[RD] art 15	2	advisory services, farm management and farm relief services	£3.50m
[RD] art 17	4	investments in physical assets	£25.00m
[RD] art 35	16	cooperation	£8.50m
Total			£48.25m

Farm Competitiveness and Supply Chain			£48.75m
[RD] art 14	1	knowledge transfer and information actions	£11.25m
[RD] art 15	2	advisory services, farm management and farm relief services	£3.50m
[RD] art 17	4	investments in physical assets	£20.00m
[RD] art 19	6	farm and business development	£10.00m
[RD] art 35	16	cooperation	£4.00m
Total			£48.75m

Farm Resource Efficiency and Sustainability			£19.00m
[RD] art 14	1	knowledge transfer and information actions	£2.00m
[RD] art 15	2	advisory services, farm management and farm relief services	£1.00m
[RD] art 17	4	investments in physical assets	£12.00m
[RD] art 35	16	cooperation	£4.00m
Total			£19.00m

Animal Health and Welfare			£17.50m
[RD] art 14	1	knowledge transfer and information actions	£5.00m
[RD] art 15	2	advisory services, farm management and farm relief services	£1.50m
[RD] art 17	4	investments in physical assets	£5.00m
[RD] art 35	16	cooperation	£6.00m
Total			£17.50m

Woodland enterprise, deer management and supply chain			£7.50m
[RD] art 14	1	knowledge transfer and information actions	£0.50m
[RD] art 15	2	advisory services, farm management and farm relief services	£0.50m
[RD] art 26	8	investments in forestry technologies and in processing mobilising etc	£4.00m
[RD] art 35	16	cooperation	£2.50m
Total			£7.50m

Summary			£141.00m
Total			£141.00m

*These are nominal indicative breakdowns of the announced headline spend

Growth			Total
			£177.00m
Building the knowledge and skills in rural areas			£35.50m
[RD] art 14	1	knowledge transfer and information actions	£24.00m
[RD] art 15	2	advisory services, farm management and farm relief services	£11.50m
Total			£35.50m
Funding new and developing micro, small and medium sized rural business			£84.50m
[RD] art 19	6	farm and business development	£74.50m
[RD] art 35	16	Co-operation	£10.00m
Total			£84.50m
Funding small scale renewable and broadband Investments in rural areas			£37.00m
[RD] art 20	7	basic services and village renewal in rural areas	£37.00m
Total			£37.00m
Support for tourism activities in rural areas			£20.00m
[RD] art 20	7	basic services and village renewal in rural areas	£10.00m
[RD] art 35	16	Co-operation	£10.00m
Total			£20.00m
Summary			£177.00m
Total			£177.00m

*These allocations are nominal and based on initial budget profiles aggregated from draft LEP strategies. These allocations will be subject to further discussion and refinement before the final Growth budget profile is agreed.

LEADER			Total
			£138.00m
Support for increasing farm productivity			£27.60m
[RD] art 17	4	investments in physical assets	£17.18m
[RD] art 19	6	farm and business development	£5.73m
[CPR] art 32	19	support from CSF Funds for local development (CLLD)	£4.69m
Total			£27.60m
Support for micro and small enterprises and farm diversification			£55.20m
[RD] art 19	6	farm and business development	£45.82m
[CPR] art 32	19	support from CSF Funds for local development (CLLD)	£9.38m
Total			£55.20m
Support for rural tourism			£27.60m
[RD] art 19	6	farm and business development	£7.56m
[RD] art 20	7	basic services and village renewal in rural areas	£15.35m
[CPR] art 32	19	support from CSF Funds for local development (CLLD)	£4.69m
Total			£27.60m
Provision of rural services			£6.90m
[RD] art 20	7	basic services and village renewal in rural areas	£5.73m
[CPR] art 32	19	support from CSF Funds for local development (CLLD)	£1.17m
Total			£6.90m
Support for cultural and heritage activity			£6.90m
[RD] art 20	7	basic services and village renewal in rural areas	£5.73m
[CPR] art 32	19	support from CSF Funds for local development (CLLD)	£1.17m
Total			£6.90m
Support for increasing forestry productivity			£13.80m
[RD] art 17	4	investments in physical assets	£1.63m
[RD] art 19	6	farm and business development	£2.29m
[RD] art 21	8	investments in forest area ... and improvement of the viability of forests	£7.54m
[CPR] art 32	19	support from CSF Funds for local development (CLLD)	£2.35m
Total			£13.80m
Summary			£138.00m
Total			£138.00m

*The LEADER budget is nominal and based on the proposed split outlined above, but will depend upon LEADER local delivery strategy proposals. Support for CSF Funds for local development includes LEADER Management and Administration costs and funding for LEADER cooperation.

Annex B: Targets

The European Commission, working closely with Member States, has developed a common set of indicators which the programme needs to report against. This section sets out the main **Target** indicators for the programme. Additionally, a further set of output, result and impact indicators are required. This helps provide a broad view of what the programme will be delivering. Defra is also looking at other measures of progress against EU and domestic objectives. A short narrative is provided under each theme to explain how the targets were arrived at, and any assumptions made.

Environment

Area based targets are set out for both agricultural land and forestry land under management contracts contributing to biodiversity (and landscape); improving water management; and improving soil management and/or preventing soil erosion.

For the agricultural target indicators estimates were drawn up based on a review of option uptake under the current programme using the existing Environmental Stewardship option/target data matrix used for the Mid Term Evaluation Report. The attribution of ES options to each target is based on expert opinion and has been made on a binary basis, i.e. they were judged to either contribute to delivery of that target or not. As a consequence there is a high level of overlap and double counting in the extent to which figures contributing to each target reflect delivery against multiple objectives.

The contribution of both Environmental Stewardship and new Environmental Land Management agreements has then been estimated by working out the proportional contribution by cost of legacy ES agreements to each target, then translating this to area figures based on known budget profiles. For new NELMs commitments the estimated contribution to target delivery is underpinned by assumptions made on the likely typical costs and option mix of the site specific and area based agreement strands against available budget. The total agricultural land base is based on the latest 2013 Defra statistics.

For forestry outputs within Priority 4 however there is no overlap of between focus areas; areas have been attributed to the priority focus area (4A or 4B, there will be no cases where support will be primarily for soil protection however this may be a secondary benefit). There is however overlap between Priorities; for example an area may contribute to both Priority 4 and Priority 5E. The total forest area is as reported in Forestry Statistics 2013.

The proportion of scheme spend against delivery of each of the three objectives was then calculated across the 2014-2020 period. Since the precise cost per hectare of the new Environmental Land Management scheme is not known, for agri-environment, the HLS figure was used as a proxy for the cost per hectare of the "Upper tier" site specific tier, whilst the mid-point between HLS and ELS was used as a proxy to help calculate the landscape scale priority areas offer contribution. For forestry the cost per hectare has been based on EWGS rates but modified to take account of proposed changes to standard costs and associated payment rates.

Priority 4: Restoring, preserving and enhancing ecosystems related to agriculture and forestry		
Focus Area	Target	Value
4 A Restoring, and preserving and enhancing biodiversity, including in Natura 2000 areas, areas facing natural or other specific constraints and high nature value farming, and the state of European landscapes	% of agricultural land under management contracts contributing to biodiversity – Physical Total area by 2020	30%
	Agricultural land under management contracts contributing to biodiversity (ha) – Physical Total area by 2020	2,724,123
4 B Improving water management, including fertiliser and pesticide management	% of agricultural land under management contracts improving water management – Physical Total area by 2020	26%
	Agricultural land under management contracts improving water management (ha) – Physical Total area by 2020	2,309,550
4 C Preventing soil erosion and improving soil management	% of agricultural land under management contracts improving soil management and or preventing soil erosion – Physical Total area by 2020	29%
	Agricultural land under management contracts improving soil management and or preventing soil erosion (ha) – Physical Total area by 2020	2,607,205
	Total agricultural land (base year = 2013)	9,018,000

Priority 4: Restoring, preserving and enhancing ecosystems related to agriculture and forestry		
Focus Area	Target	Value
4 A Restoring, and preserving and enhancing biodiversity, including in Natura 2000 areas, areas facing natural or other specific constraints and high nature value farming, and the state of European landscapes	% of forest area under management contracts contributing to biodiversity (ha) – Physical Total area by 2020	11.2%
	Forest area under management contracts contributing to biodiversity (ha) – Physical Total area by 2020	145,000
4 B Improving water management, including fertiliser and pesticide management	% of forest area under management contracts improving water management – Physical Total area by 2020	0.77%
	Forest area under management contracts improving water management (ha) – Physical Total area by 2020	10,000

Priority 4: Restoring, preserving and enhancing ecosystems related to agriculture and forestry		
Focus Area	Target	Value
4 C Preventing soil erosion and improving soil management	% of forest area under management contracts improving soil management and or preventing soil erosion – Physical Total area by 2020	0%
	Forest area under management contracts improving soil management and or preventing soil erosion (ha) – Physical Total area by 2020	0
	Total forest area (ha) (base year = 2013)	1,300,000

The **Priority 1A** target based on the initial budget allocation for the advisory services and cooperation measures as set out in the budget breakdown for Environment above. The **Priority 1B** target is based on an estimation of the likely number of groups who will be specifically supported using this measure, based on the principles of Nature Improvement Areas (NIAs) which have already been operating domestically for some time. Thus this target does not fully capture cooperation between farmers and land managers at a “landscape scale”.

Priority 1: Fostering knowledge transfer and innovation in agriculture, forestry and rural areas		
Focus Area	Target	Value
1A Fostering innovation, cooperation, and the development of the knowledge base in rural areas	% of Total public expenditure [£]	16,200,000
	Advisory services [Measure 2 spend] [£]	9,000,000
	Cooperation [Measure 16 spend] [£]	7,200,000
1B Strengthening the links between agriculture, food production and forestry and research and innovation, including for the purpose of improved environmental management and performance	Number of cooperation operations planned under the cooperation measure by 2020	24

The area based target for **Priority 5** sets out the combined total agricultural and forestry land under management contracts contributing to fostering carbon sequestration / conservation and has been estimated based on a similar methodology to the Priority 4 targets. All areas supported for woodland creation or woodland management are deemed to either sequester or conserve carbon stocks. The total agricultural and forestry land base is based on the latest 2013 Defra statistics.

Priority 5: Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors		
Focus Area	Target	Value
5E Fostering carbon conservation and sequestration in agriculture and forestry	% of agricultural and forest land under management to foster carbon sequestration/conservation	25.2%
	Total Physical area by 2020 – Agriculture / Forestry	2,456,036
		169,000
	Total agricultural and forest land area (base year) (base year = 2013)	10,400,000

Productivity

Estimates for delivery of Productivity targets are based on current programme benchmarks. In many cases policy development in these areas is uncertain, so these estimates should be interpreted with a level of caution.

The **Priority 1A** target is based on the initial budget allocation for the knowledge transfer, advisory services and cooperation measures as set out in the budget breakdown for Productivity above. The **Priority 1B** target represents the total number of expected cooperation projects against a spend of £25m, with spend to support European Innovation Partnership (EIP) operational groups part of this figure. Spend for each EIP operational group has been estimated at £150,000 per year. The cost of a non-EIP cooperation project is based on the average level of support provided to a cooperation project under Measure 124 of the previous programme. This estimate was increased by 100% to reflect that we expect funding to support larger integrated cooperation projects. The target for **Priority 1C** is based on expected public expenditure per attendee under the 2014/5 Skills framework across all areas. The targets reflect longer courses and higher administration costs in 2014/5 than previously.

Priority 1: Fostering knowledge transfer and innovation in agriculture, forestry and rural areas		
Focus Area	Target	Value
1A Fostering innovation, cooperation, and the development of the knowledge base in rural areas	% of Total public expenditure [£]	£65,000,000
	Knowledge transfer and information actions [Measure 1 spend] [£]	£30,000,000
	Advisory services [Measure 2 spend] [£]	£10,000,000
	Cooperation [Measure 16 spend] [£]	£25,000,000
1B Strengthening the links between agriculture, food production and forestry and research and innovation, including for the purpose of improved environmental management and performance	Number of cooperation operations planned under the cooperation measure by 2020	92
	Number of European Innovation Partnership operational groups to be supported (establishment and operation) by 2020	4
	Number of other cooperation operations: groups, networks/clusters, pilot projects by 2020	88
1C Fostering lifelong learning and vocational training in the agriculture and forestry sectors	Number of participants in training	47,000

For **Priority 2A**, the average grant size and grant rate (the proportion of project funds provided by RDP grant), is assumed to be the same as for projects aimed at improving farm economic performance in the previous programme under Measures 121 and 125. This has been compared to the budget allocation for Measure 17: Investments in Physical Assets in Focus Area 2A to obtain the number of holdings supported. The total number of holdings figure used for **Priorities 2A and 3A** is based on EU level data for 2010.

Priority 2: Enhancing farm viability and competitiveness of all types of agriculture in all regions and promoting innovative farm technologies and sustainable management of forest		
Focus Area	Target	Value
2A Improving the economic performance of all farms and facilitating farm restructuring and modernisation, notably with a view to increase market participation and orientation as well as agricultural diversification	% of agriculture holdings with RDP support for investment in restructuring or modernisation	2.34%
	Number of agriculture holdings with RDP support for investment in restructuring or modernisation	2,465
	Total Number of holdings (base year = 2010)	105,500

Priority 3A: The indicator for Focus Area 3A only represents funding for cooperation or local promotion activity among supply chain actors. This is a subset of the proposed support for cooperation activity and therefore this indicator only shows a subset of the holdings which will be supported for cooperation based on a budget of £9.5m. The target is based on the average level of support provided to a cooperation project under Measure 124 of the previous programme increased by 100% as we anticipate funding large integrated cooperation projects. We have used a conservative estimate of 5 holdings per supported project to generate this estimate of the number of holdings supported.

Priority 3: Fostering knowledge transfer and innovation in agriculture, forestry and rural areas		
Focus Area	Target	Value
3A Improving competitiveness of primary producers by better integrating them into the agri-food chain through quality schemes, adding value to agricultural products, promotion in local markets and short supply circuits, producer groups and inter-branch organisations	% of agricultural holdings supported under quality schemes, local markets and short supply circuits, and producer groups/organisations	0.04%
	Number of agricultural holdings participating in cooperation/local promotion among supply chain actors [Measure 16]	40
	Total Number of holdings (base year = 2014)	105,500

All **Priority 5** targets are based on expected spend for the Farm Resource Efficiency and Sustainability themes of the Productivity scheme. In each case, the proportion of private and public funding for projects under the previous programme in each Focus Area have been used to generate estimates of the total investment in the new programme from budgetary allocations.

Priority 5: Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors		
Focus Area	Target	Value
5A Increasing efficiency in Water Use in Agriculture	Total investment GBP (public + private) [Measure 4]: Investments in Physical Assets	£15,145,610
5B Increasing efficiency in energy use in agriculture and food processing	Total investment in energy savings and efficiency (£) (public + private) [Measure 4]: Investments in Physical Assets	£7,772,890
5C Facilitating the supply and use of renewable sources of energy, of by products, wastes, residues and other non-food raw material for purposes of the bio-economy	Total investment in renewable energy production (£)	£18,050,069
	Total investment £ (public + private) [Measure 4]: Investments in Physical Assets	£8,013,663
	Total investment £ (public + private) [Measure 8]: Investments in forest area development and improvement of the viability of forests	£10,036,406
5D Reducing Greenhouse Gas and Ammonia emissions from agriculture	Total investment GBP (public + private) [Measure 4]: Investments in Physical Assets	£29,189,116

Growth Programme and LEADER

We have assumed that Growth Programme and LEADER activities relate to **Focus Areas 6A, 6B and 6C** only. To estimate the targets we have used data collected from the current programme in terms of number of beneficiaries, jobs created and participants under training and benchmarked targets on a £m basis for the new programme. The funding tables for Growth and LEADER set out above provide the basis for the estimation of targets, and are based on the initial budget splits provided by LEPs in their investment strategies and the indicative split between priorities for the LEADER programme.

Mapping benchmarks across to new programme spending therefore provides reasonably robust targets of what we expect the new programme to achieve despite uncertainties over individual finalised LEP strategy targets and those set out in LEADER local development plans.

Priority 6: Fostering knowledge transfer and innovation in agriculture, forestry and rural areas		
LEADER and Growth programme		
Focus Area	Target	Value
6A Facilitating diversification, creation and development of small enterprises and job creation	Number of jobs created through supported projects (SMEs)	10,764
LEADER		
6B Fostering local development in rural areas	% rural population covered by LEADER local development strategies	tbc*
	Rural population covered by Local Action Groups (LEADER groups) by 2020	tbc*
	Total rural population, 2011	9,343,856
6B Fostering local development in rural areas	Number of jobs created through supported projects (Tourism, infrastructure and other rural services)	2,062
6B Fostering local development in rural areas	% of rural population benefiting from new or improved services / infrastructures	44%
	Population benefiting from improved services/infrastructures	4,073,890
	Total rural population, 2011	9,343,856
Growth programme		
6C Enhancing accessibility to, use and quality of information and communication technologies (ICT) in rural areas	% of rural population benefiting from new or improved IT infrastructures	1%
	Population benefiting from new or improved IT infrastructures (e.g. broadband internet)	46,768
	Total rural population, 2011	9,343,856

* % of rural population covered by LEADER local development strategies will not be determined until LEADER groups are in place for the new programme.