Realising Agricultural Landscape-Scale Conservation

A Report for the RSPB by Vicki Swales

March 2009
Foreword

Realising a vision for landscape-scale conservation – a response to the report

Over the last century, the UK’s wildlife habitats have steadily been damaged and destroyed - only relatively small fragments of high quality habitat remain. Technological advancement and farming policies had huge impacts on farmland, resulting in increased food production but less space for wildlife. Development pressures have resulted in the loss or degradation of large areas of semi-natural habitat. The result has been the widely recognised declines in wildlife populations and diversity, and increasing concerns about our ability to secure ecosystem services such as clean water, protection from floods, natural nutrient cycles and functions such as pollination, and access to green spaces.

More recently, there has been a greater emphasis on harmonising production with the environment, supported in many cases through agri-environment schemes for farmers. Government policies are increasingly recognising the need to integrate environmental issues into development decisions. A growing awareness of the urgency of tackling the causes and impacts of climate change is highlighting the need for larger, more resilient semi-natural areas, to enable wildlife to adapt and to deliver other ecosystem services on a sufficient scale.

The RSPB believes it is now time for a new approach to securing environmental goods, through landscape-scale conservation. This approach is needed to reverse the catalogue of loss we have seen, and to secure a place for wildlife in the future of our countryside. The RSPB’s Futurescapes programme is being developed as our contribution to this national need, alongside landscape-scale conservation initiatives by other organisations.

With agricultural land covering 75% of the UK’s land area it will be vital that farmers are involved in making landscape-scale conservation a reality; by managing productive land within landscapes in a way that benefits biodiversity and links our existing isolated high quality habitats. These larger target areas will be different to the existing nature reserve model as they will need to support a mixture of livelihoods and provide multiple environmental, social and economic benefits – including food production.

But, how can conservation, environmental protection and other public goods provision be achieved at such a scale and on farmland with multiple owners?
Farmers and landowners will have to collaborate to achieve conservation objectives. Governments, NGOs or agencies aiming to kick start initiatives will have to work with, empower and enthuse farmers and local communities in a new way and over a much longer period. All these different stakeholders will have to work together to plan and then carry out activities across contiguous, and often large, areas of land.

Government must make a landscape-scale approach central to its own vision for conservation, environmental protection and climate change adaptation, and help make action possible on the ground. Funding for collaborative land management agreements is not commonplace in the UK. We believe the UK governments must adapt their current funding streams to facilitate long-term collaborative land management agreements.

In order to help realise its vision for Futurescapes the RSPB has commissioned this report looking at the ways farmers and landowners have worked together to achieve environmental objectives at a landscape scale. The principles and recommendations outlined in the report provide a useful guide to best practice in this area which will help to inform work by the RSPB and others in achieving targets for wildlife conservation and environmental protection in the future.

Dr. Sue Armstrong-Brown
RSPB Head of Countryside and Species Conservation
Acknowledgements

The author wishes to thank Jim Densham of the RSPB for his valuable comments and input during the course of this study. Thanks are also due to the following for providing information on the case studies: Clive Faulkner (WWT, Pumlumon); Roy Taylor (RSPB, SCaMP); Greg Thexton (BIFF); Tim Breakwell (Herefordshire WT, Community Commons); Rosanna Dollman (Defra, ECSFDI); Bill MacDonald (Executive Director, MBG); Jeremy Franks (Environmental Cooperatives).

The views expressed in this report are entirely those of the author. The corresponding author for this report is Vicki Swales (vicki.swales@btinternet.com).
Contents

Executive Summary .................................................................................................................. 7

1. Introduction ......................................................................................................................... 11
   1.1 Background ................................................................................................................... 11
   1.2 Policy Context ............................................................................................................... 12
   1.3 Project Objectives ....................................................................................................... 12
   1.4 Report Outline ............................................................................................................. 13

2. Landscape Scale Conservation: definitions and approaches ........................................... 14
   2.1 Defining Landscape Scale Conservation ........................................................................ 14
   2.2 The Potential Environmental Benefits of Agricultural Landscape Scale Conservation ........................................................................................................ 15
   2.3 Achieving Environmental Outcomes through Cooperation ......................................... 18
   2.4 Achieving Cooperation Among Farmers in the UK ..................................................... 20

3. Agricultural Landscape Scale Conservation: a brief review of relevant initiatives ............ 24
   3.1 Introduction .................................................................................................................. 24
   3.2 Identification of relevant initiatives ........................................................................... 24
   3.3 Overview of different types of initiatives ...................................................................... 25
      3.3.1 Multi-partner initiatives ....................................................................................... 25
      3.3.2 Advisory initiatives ............................................................................................. 26
      3.3.3 Cooperative marketing ....................................................................................... 26
      3.3.4 Farmer Discussion and Education Groups ........................................................... 27
      3.3.5 Farmer/community groups .................................................................................. 27
      3.3.6 Other initiatives .................................................................................................. 28
   3.4 Case Study Selection ..................................................................................................... 28

4. Case Studies ......................................................................................................................... 30
   4.1 Case Study 1: Pumlumon Project, Wales ..................................................................... 31
   4.2 Case Study 2: Sustainable Catchment Management Programme (SCaMP), England ................................................................................................................. 34
   4.3 Case Study 3: Breadalbane Initiative for Farm Forestry, Scotland .............................. 38
   4.4 Case Study 4: Community Commons, Herefordshire, England ................................. 43
   4.5 Case Study 5: England Catchment Sensitive Farming Delivery Initiative (ECSFDI) ........................................................................................................................ 47
   4.6 Case Study 6: Monitor Farms, Scotland ........................................................................ 52
   4.7 Case Study 7: Malpai Borderlands Group (MBG), USA ............................................. 56
   4.8 Case Study 8: Landcare, Australia .............................................................................. 61
   4.9 Case Study 9: Environmental Cooperatives, The Netherlands .................................. 68

5. Analysis of case studies and lessons learned ..................................................................... 72
   5.1 Introduction ................................................................................................................... 72
   5.2 Establishing landscape scale or collaborative projects ................................................. 72
   5.3 Legal and administrative arrangements ........................................................................ 73
   5.4 Funding ........................................................................................................................ 75
   5.5 Animation and facilitation .......................................................................................... 77
   5.6 Advice and information .............................................................................................. 78
   5.7 Engagement with farmers and local communities ....................................................... 79
   5.8 Environmental and other benefits achieved ............................................................... 82
5.9 Overall success of projects in achieving landscape scale conservation

6. Conclusions and recommendations

6.1 Establishing landscape scale or collaborative projects
6.2 Legal and administrative arrangements
6.3 Funding
6.4 Animation and facilitation
6.5 Advice and information
6.6 Engagement with farmers and local communities
6.7 Principles for agricultural landscape scale conservation

References

Annex 1: List of Initiatives for Initial Review
Executive Summary

There is growing recognition of the need to adopt a broader, landscape-scale approach – as opposed to a site based approach - to conservation. Such an approach has at its core the restoration of habitat at a landscape scale through the reversal of the degradation and fragmentation of priority habitats. Habitat maintenance and creation at such a scale should enable the UK to meet its obligations for habitat and biodiversity protection and enable biodiversity to adapt and survive the effects of climate change. A landscape scale conservation approach can also help to deliver multiple environmental objectives and public goods, in addition to habitat creation, such as, climate change mitigation, flood protection and water quality. Key drivers for adopting a landscape scale approach to conservation include: international agreements such as the Bern Convention and Convention on Biological Diversity; the demands of legislation such as the Water Framework Directive; climate change agreements and targets; and, pressure to reform the Common Agricultural Policy (CAP) to focus public payments on the delivery of public goods.

The landscape-scale approach requires a framework for making landscape-level conservation decisions and to facilitate the planning, negotiation and implementation of activities across contiguous, and often large, areas of land. It implies the integration of top-down planning with bottom up, participatory approaches. Understanding how the landscape-scale approach can work in practice is likely to be critical to its wider adoption in future. Of particular interest are the legislative and administrative arrangements, funding requirements, information and advice, levels of animation or participation and mechanisms for farmer/community engagement, needed to make the approach work.

The RSPB has a particular practical interest in landscape scale conservation since its reserves essentially represent sites (reservoirs of biodiversity) which form part of much larger landscapes and ecosystems. The RSPB commissioned this research to influence: its own thinking on how landscape scale conservation can be realised on agricultural land, especially around its own reserves; policy makers on how to deliver landscape scale change from agricultural land; and, the ‘what land is for’ debate which recognises that there are multiple and conflicting objectives for land use in the UK. The objectives of the research were to:

- Analyse how landscape scale wildlife conservation and environmental protection can be delivered on farmland
- Make recommendations on the most appropriate methods to deliver wildlife conservation and environmental protection at a landscape scale

For the purposes of this study, agricultural landscape scale conservation (ALSC) is defined as an approach which delivers public goods, including wildlife conservation, through action by multiple landowners in a clearly defined landscape, over and above what could be achieved by individual action.

The report gives a brief overview of literature relevant to ALSC and to cooperation between farmers and landowners. It examines broad definitions for and the principles behind the approach, reviews the likely benefits of such an approach to conservation
and identifies some of the key issues emerging from landscape scale conservation initiatives and relevant studies to date. It also reviews experiences in relation to achieving greater co-operation between farmers in order to achieve environmental objectives.

A brief review of a selection of UK and non-UK initiatives of interest in relation to ALSC and cooperative working identified 45 such initiatives, drawn from the UK, mainland Europe and the USA, New Zealand and Australia. Most were focused on addressing environmental issues through land management but a few were established to promote farm business development or achieve broader rural development objectives. A number of common types of initiatives were identified including: multi-partner initiatives; advisory initiatives; cooperative marketing; farmer discussion and education groups; farmer/community groups; and, other types of initiatives e.g. estate based projects.

From this long list of initiatives, 9 case studies were selected to:

- Represent a range of different environmental issues being addressed e.g. biodiversity conservation, improved water management
- Include at least one of each type of initiative identified by the initial review
- Give as wide a geographical spread as possible
- Give particular emphasis to initiatives that encourage cooperative management of agricultural land i.e. farmers or landowners working together in a contiguous area to achieve a common objective

### Selected Case Studies

<table>
<thead>
<tr>
<th>No</th>
<th>Name (and location)</th>
<th>Issue addressed</th>
<th>Type of initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pumlumon Large Areas Conservation project (Wales)</td>
<td>Biodiversity and Landscape Conservation</td>
<td>Multi-partner</td>
</tr>
<tr>
<td>2</td>
<td>SCaMP (England)</td>
<td>Improved water management</td>
<td>Multi-partner</td>
</tr>
<tr>
<td>3</td>
<td>Breadalbane Initiative for Farm Forestry (Scotland)</td>
<td>Farm business development/cooperative marketing/farm woodland management</td>
<td>Multi-partner</td>
</tr>
<tr>
<td>4</td>
<td>Community Commons (England)</td>
<td>Biodiversity conservation</td>
<td>Multi-partner/community group</td>
</tr>
<tr>
<td>5</td>
<td>Catchment Sensitive Farming Delivery Initiative (England)</td>
<td>Improved water management</td>
<td>Advisory</td>
</tr>
<tr>
<td>6</td>
<td>Monitor Farms (Scotland)</td>
<td>Farm business development</td>
<td>Farmer Discussion groups</td>
</tr>
<tr>
<td>7</td>
<td>Malpai Borderlands Group (USA)</td>
<td>Sustainable land management</td>
<td>Farmer/community group</td>
</tr>
<tr>
<td>8</td>
<td>Landcare (Australia)</td>
<td>Sustainable land management</td>
<td>Farmer/community groups</td>
</tr>
<tr>
<td>9</td>
<td>Environmental Cooperatives (Netherlands)</td>
<td>Environmental land management</td>
<td>Farmer/community groups</td>
</tr>
</tbody>
</table>
The case studies identified the main components of the selected initiatives and described their strengths and weaknesses. Each case study aimed to learn lessons from the initiative in relation to:

- objectives;
- legal and administrative arrangements;
- funding;
- animation and facilitation;
- advice and information;
- engagement with farmers/community engagement;
- environmental and other benefits;

The information presented was drawn from published reports and evaluations, project websites and project literature and supplemented in most cases by semi-structured telephone interviews with project staff.

Not all of the projects examined set out to deliver public goods at landscape scale through collaborative working amongst farmers. But all have at least one or more component that is relevant to this objective which warranted their inclusion in this study. For example, SCaMP clearly sets out to deliver landscape scale change but does not attempt to achieve collaborative working. The opposite could be said of the Community Commons project. A comparison of the 9 case study projects was made against three criteria: delivering public goods; delivering landscape scale change; and, achieving collaborative working amongst farmers. This highlights that three projects – MBG, Landcare and Environmental Cooperatives – appear to be the strongest in terms of achieving landscape scale conservation, meeting all three criteria. It should be noted however that Landcare is an approach to land management rather than a specific project. The activities of different Landcare groups are highly variable and, in practice, not all are likely to be achieving landscape scale conservation. Equally, there are differences between environmental cooperatives in the Netherlands and some may be more effective than others in terms of landscape scale conservation.

From the examples of the case studies, 19 recommendations have been made for delivering ALSC projects and achieving collaborative land management. Furthermore, a set of principles for achieving ALSC highlight the ‘best practice’ components of the three most successful projects reviewed. Principles for ALSC are as follows:

1. Target areas for ALSC projects should be ecologically relevant and socially meaningful and be selected on the basis of clearly identified criteria.
2. ALSC projects should establish clear goals and objectives from the outset, in collaboration with key stakeholders and partners.
3. ALSC projects should take an integrated approach to land management and seek to deliver environmental, economic and social benefits at landscape scale, wherever possible.
4. Good governance is key to effective ALSC – projects require representative, locally accountable and transparent governance arrangements.
5. ALSC requires long term funding from public and/or private sources, to cover both core, administrative costs and pay for conservation activity on the ground.

6. Projects need animation and facilitation by project staff, farmer/community leaders or both. Such individuals must have the requisite skills and knowledge to run projects and be respected and trusted by the farming/local community.

7. Providing conservation advice to land managers should be a key component of ALSC projects and is best delivered through 1:1 methods and supported by other means.

8. ALSC projects need to be publicised to encourage participation and facilitate understanding. Sufficient resources need to be allocated for this purpose.

9. ALSC projects must enthuse, engage and empower farmers and local communities, particularly where projects are initiated by government or other organisations.

10. Participation in an ALSC project should to be encouraged by offering a wide range of incentives (both financial and non-financial) and barriers to participation need to be both understood and overcome.

The benefits of pursuing ALSC are potentially great. ALSC represents an approach to land management that can help to reverse the degradation and fragmentation of priority habitats and benefit associated species. The more integrated approach to land management, implicit in the concept, should also yield other benefits, alongside those for biodiversity, in relation to climate change mitigation, flood protection and water quality. This research project has highlighted some of the key needs and core principles that need to be followed to achieve ALSC, building on earlier research. The best examples of ALSC seem to be those that are farmer/community led and which operate over an area that is meaningful to those communities as well as coherent in bio-physical terms. Well run projects have put in place good governance arrangements, established clear goals and objectives and employ skilled people or work in partnership with those who can provide expertise and knowledge. On-going funding is frequently a challenge for projects but the best projects make use of a wide range of different funding streams from both the public and private sectors. Good projects promote their activities, encourage active participation, using various incentives as necessary, and enthuse and empower farmers and others to take action. Of the case studies reviewed, the MBG, Landcare, Environmental Cooperatives and, to a lesser extent, SCaMP apply the basic principles of ALSC most consistently and appear to be most successful in delivering environmental protection and/or wildlife conservation at the landscape scale. Greater application of the ALSC approach needs to be encouraged if the many environmental challenges facing us – including climate change, biodiversity loss and water pollution - are to be addressed adequately in future.
1. Introduction

1.1 Background
Historically, the conservation of species and habitats has focused on site based management but there is growing recognition of the need to adopt a broader, landscape-scale approach to conservation. Such an approach has at its centre the restoration of habitat at a landscape scale through the reversal of the degradation and fragmentation of priority habitats within the landscape. Habitat maintenance and creation at such a scale should enable the UK to meet its obligations for habitat and biodiversity protection. It should also enable biodiversity to adapt and survive the effects of climate change. But landscape scale conservation is potentially more than a means of restoring the historic extent of habitats; it could also be a valuable approach to deliver multiple environmental objectives and public goods, in addition to habitat creation, such as, climate change mitigation, flood protection and water quality.

Agriculture covers approximately 70% of the UK’s land area and 47% of the EU land area and is critical to achieving landscape-scale wildlife conservation. However, the landscape-scale approach has not, to date, been widely applied to the management of agricultural land in the UK or EU. This may be a legacy of national agriculture policies and the Common Agricultural Policy (CAP) which, historically, have tended to emphasise the relationship between the state and the individual farmer through the subsidy regime. If landscape-scale conservation is to be achieved in future – to benefit biodiversity, protect water resources or mitigate against climate change - ways will need to be found to get multiple land owners and land managers working together effectively. But collaboration or co-operation between farmers currently tends to be witnessed primarily in relation to food marketing or other production related activities and much less so in relation to the management of the natural resources on which farming relies.

The RSPB has a particular practical interest in landscape scale conservation since its reserves essentially represent sites (reservoirs of biodiversity) which form part of much larger landscapes and ecosystems. Securing sympathetic land management across these landscapes and ecosystems will be critical to the future of the reserves themselves as well as to achieving benefits for society more widely. The RSPB also seeks to influence land use policy more generally and wishes to advise policy makers on how to deliver landscape-scale change from agricultural land.

The landscape-scale approach requires a framework for making landscape-level conservation decisions and to facilitate the planning, negotiation and implementation of activities across contiguous, and often large, areas of land. It implies the integration of top-down planning with bottom up, participatory approaches. Understanding how the landscape-scale approach can work in practice is likely to be critical to its wider adoption in future. Of particular interest are the legislative and administrative arrangements, funding requirements, information and advice, levels of animation or participation and mechanisms for community engagement, needed to make the approach work. This research project seeks to identify some of the critical factors likely to influence the success or otherwise of the landscape-scale approach as applied in different situations.
1.2 Policy Context

International agreements like the Bern Convention and World Heritage Convention recommend landscape-scale actions and the ecosystem approach is promoted by the Convention on Biological Diversity. New and ambitious legislation such as the EU Water Framework Directive, which requires Member States to achieve good status of all ground and surface waters by 2015, is also now in place requiring action at the level of river basin districts. Climate change agreements and targets are also likely to require responses above the level of sites or individual farm holdings. Such agreements and legislation suggest that the adoption of a landscape-scale approach is necessary rather than desirable and that greater effort needs to be devoted now to understanding how such an approach can work in practice, particularly in the agriculture sector.

EU agriculture policy continues to emphasise the relationship between the state and individual farmers e.g. through payment of the Single Payment Scheme (SPS). However, the European Agricultural Fund for Rural Development (EAFRD) contains measures that could potentially contribute to achieving landscape-scale conservation. For example, while agri-environment agreements form a contract between the state and individual farmers, it is possible – in theory – to negotiate joint or complementary agreements between groups of farmers in order to achieve objectives at landscape-scale. There is some past experience with the Environmentally Sensitive Areas scheme in England of negotiating grazing agreements on common land in order to achieve conservation objectives. The Leader measure also offers opportunities to put in place administrative structures and pay for facilitation that would support landscape-scale approaches to conservation. A report for the Land Use Policy Group\(^1\) identified a range of opportunities to achieve environmental management through Leader. Informing policy thinking on the use of existing CAP mechanisms to achieve landscape-scale conservation is essential. The recent CAP Health Check identified four key environmental challenges facing the CAP - climate change mitigation, renewable energies, water management and biodiversity – all of which would potentially benefit from landscape-scale approaches and to which EAFRD funds can be targeted.

In the longer term, the EU Budget Review is likely to raise some fundamental questions about the future of the CAP and the rationale for making payments to farmers. Much greater emphasis may be given to the concept of ‘public payments for public goods’ and to delivering ecosystem services rather than simply providing income support for farmers. The results of this research may help to inform the RSPB’s own thinking about the future of the CAP and the kinds of policy tools that could be employed in order to deliver public goods from agricultural land.

1.3 Project Objectives

The RSPB commissioned this research to influence: its own thinking on how landscape scale conservation can be realised on agricultural land, especially around its own reserves; policy makers on how to deliver landscape scale change from

---

\(^1\) IEEP and CCRU (2006) The Environmental Contribution of Leader+ in the UK, A report for LUPG
agricultural land; and, the ‘what land is for’ debate which recognises that there are multiple and conflicting objectives for land use in the UK.

The objectives of the research are to:

- Analyse how landscape scale wildlife conservation and environmental protection can be delivered on farmland
- Make recommendations on the most appropriate methods to deliver wildlife conservation and environmental protection at a landscape scale

1.4 Report Outline

Chapter 2 gives a brief overview of literature relevant to agricultural landscape scale conservation and to cooperation between farmers and landowners. Chapter 3 offers a brief review of a selection of UK and non-UK initiatives that are potentially of interest in relation to agricultural landscape scale conservation and cooperative working. A long list of initiatives is identified from which 9 case studies have been selected. Chapter 4 presents the case studies, identifying the main components of the selected initiatives and their strengths and weaknesses. Chapter 5 provides an analysis of the case studies and identifies the key lessons that can be learned in relation to landscape scale conservation and collaborative working among farmers and local communities. Chapter 6 draws overall conclusions and makes recommendations for delivering landscape scale conservation projects and achieving collaborative land management. It concludes with a set of principles for, or ‘best practice approach’ to, achieving agricultural landscape scale conservation.
2. Landscape Scale Conservation: definitions and approaches

This chapter gives a brief overview of literature relevant to agricultural landscape scale conservation. It examines broad definitions for and the principles behind landscape scale conservation, reviews the likely benefits of such an approach to conservation and identifies some of the key issues emerging from landscape scale conservation initiatives and relevant studies to date. It also reviews experiences in relation to achieving greater co-operation between farmers in order to achieve environmental objectives.

2.1 Defining Landscape Scale Conservation

Historically, the conservation of species and habitats has focused on site based management but there is growing recognition of the need to adopt a landscape-scale approach to conservation (Wildlife Trusts, undated). Such an approach goes beyond the management of individual sites, promoting a more holistic framework for conservation management, considering the role and functioning of habitats and species within whole landscapes or ecosystems. From an ecological perspective the principles of the approach owe much to the application of island biogeography (MacArthur and Wilson, 1967). Key reservoirs of biodiversity in the landscape are identified (including designated sites) and opportunities to link, complement or expand these sites are sought with the emphasis on the role of natural processes in their management.

Landscape-scale conservation is therefore viewed not simply as a means of securing larger, special sites but as embodying a different approach to nature conservation (Sanderson et al, 2002). A traditional habitat management approach for a wet meadow in a river valley would be to bring that habitat into favourable management for the benefit of wildlife. A landscape-scale or landscape ecology approach would address the processes that drive the ecological interest of the meadow – hydrology and grazing – and look at how these functioned in the whole valley. Such an approach would not only improve a larger area for wildlife but is also likely to improve the ecological functioning of the valley, with spin-off benefits such as better flood management and aquifer recharge (Wildlife Trusts, undated). By accounting for the complex and diverse needs of people and wildlife, such an approach offers a potentially more effective strategy for conserving biodiversity (Sanderson et al, 2002).

There are many definitions of ‘landscape’ and deciding where and at what scale to focus landscape-scale conservation action is the subject of much research and debate. Landscapes can be considered to consist of multiple patches (habitats) which create diversity in an area (Gutzwiller 2002 cited in Wildlife Trusts, undated). WWF highlights that conservationists use biogeographical characteristics to define “functional conservation landscapes’. They define a landscape as, … ‘a contiguous area, intermediate in size between an ’ecoregion’ and a ’site’, with a specific set of ecological, cultural and socio-economic characteristics distinct from its neighbours’ recognising that other stakeholders use different parameters to define “cultural” or “livelihood” landscapes (WWF, 2004a). Recognition of these cultural or livelihood landscapes, which may overlap with but not necessarily match conservation landscapes, is important and may have a significant bearing on what can be achieved on the ground through landscape scale conservation approaches (WWF, 2004b).
Wildlife Trusts (undated) argue that the benefits of landscape scale conservation will only be felt if effort is focused on sufficiently large areas; in their view, landscapes selected on the basis of natural boundaries such as river catchments or geological features are likely to be large enough for even the most demanding species. Identifying biogeographic zones as a means of setting nature conservation objectives and targeting action is the approach embodied in the Natural Area concept. Natural Areas have been formally defined as:

‘…biogeographic zones which reflect the geological foundation, the natural systems and processes and the wildlife in different parts of England…’ (Biodiversity: The UK Steering Group Report, 1995)

Meanwhile, the EU Water Framework Directive\(^2\) requires Member States to identify individual river basins within their territory and establish River Basin Management Plans to achieve good ecological status. Both of these indicate attempts to develop a more strategic approach to achieving environmental outcomes that are synergistic with the principles of landscape scale conservation. Action at such scale may not always be feasible however. Defining smaller areas for action is likely to depend on developing better understanding of long-term population viability. Sanderson et al, 2002 identifies a number of different approaches promoted by conservation biologists and landscape ecologists to targeting action. Some focus on the most species rich places, others seek to identify a portfolio of conservation sites that insure representation of species, communities and ecological phenomena. Expanding and connecting existing fragments of quality habitats can create ‘sources’ - areas with self-sustaining populations of species from which re-colonisation of the surrounding landscape can occur (Wildlife Trusts, undated).

Applying the landscape scale conservation approach to agriculture recognises both the dominance of farmland in terms of European land coverage and the inter-relationship between farming systems and practices and the natural environment. Many species and habitats are the product of, and dependent on, certain kinds of agricultural management but are threatened by the intensification of agriculture on the one hand and land abandonment on the other (EEA, 2007, Baldock et al, 2002). Achieving conservation objectives requires influencing the management of farmland, through working with the farming community, at a scale that allows problems to be addressed.

### 2.2 The Potential Environmental Benefits of Agricultural Landscape Scale Conservation

Unlike some other economic activities, farming forms part of an ecosystem rather than being external to it. Agricultural commodities are produced by employing land, labour and capital, introducing inputs such as seeds, pesticides and fertilisers and by manipulating the environment through a range of different practices such as land drainage, tilling of soil, diverting natural water sources and grazing livestock. As a result, these practices can impact – both positively and negatively - on soil, air and water resources and on the physical landscape and the biodiversity found there. These

\(^2\) Directive 2000/60/EC of 23 October 2000 establishing a framework for Community action in the field of water. OJ L327/1
impacts of agriculture on the environment are increasingly well understood. Much of Europe’s biodiversity and landscape value is the product of thousands of years of agriculture, with traditional farming systems and practices having created the conditions for many species to survive. As agriculture developed, Europe’s original forest cover gave way to tilled fields and pasture, hedgerows and orchards, to create several thousand specific biotopes and hundreds of large ecosystems. The interplay of different soil types, climate, available gene pools and human land use determined the current distribution of species in Europe (Nowicki, 1997). Highest biodiversity coincides with low agricultural inputs and extensive farming practices. The majority of high nature value farmland consists of grazed, semi-natural grasslands although extensive mixed arable systems can also support high biodiversity. Grassland systems are characterised by low stocking densities, low use of chemical inputs and often labour intensive management practices, such as shepherding. Examples of high nature value farmland include extensively grazed uplands in the UK, alpine meadows and pasture, steppic areas in eastern and southern Europe and the dehesas and montados of Spain and Portugal (EEA, 2004). Such habitats are not only species rich but form part of valued cultural landscapes. The traditional management of agricultural land also plays an important role in maintaining functioning ecosystems, contributing to nutrient cycling, soil protection, the provision of clean water and carbon storage in soils.

As agriculture has evolved, it has become increasingly intensive and specialised, seeking to increase yields and overall efficiency in response to a range of factors including increasing demand for food and policy drivers. But in some parts of Europe where the socio-economic conditions for production are unfavourable, agriculture has also been abandoned. These contrasting trends have had significant negative impacts on the environment. Key impacts include:

- Soil erosion, compaction due to the use of heavy machinery, acidification caused by ammonia emissions and contamination with chemicals such as pesticides and fertilisers
- Emissions of acidifying gases such as nitrogen oxides and ammonia and of green house gases such as methane from livestock
- Point source and diffuse pollution of water by nitrates and phosphates reducing water quality and impacts on water quantity as a result of over-abstraction and field drainage
- Declines in biodiversity as a result of habitat deterioration, degradation and outright loss
- Loss of landscape diversity and landscape features as a result of increasing monocultures, reduced management and removal of landscape features such as hedgerows and copses

Hence, whilst agriculture’s primary function is the production of food and fibre (commodities), the process of producing those commodities results in a range of non-commodity outputs which can be referred to as positive and negative externalities. Positive externalities are frequently referred to as public goods or services or public benefits. Defra (2006) define public goods as follows:

‘A public good is a commodity, service or institution which provides net benefits to communities as a whole but is unlikely to be fully provided by the market because
non-payers cannot be excluded from consuming it, and its consumption by one person
does not deprive consumption by others. 'Positive externalities’ are similar: a good
has positive externalities when the social or environmental benefits of production or
consumption exceed the private commercial benefits, leading to under-provision by
the market.'

WWF (2008) identify public goods from agriculture as:

- The protection and maintenance of habitats and species
- The protection of key land, soil and water resources needed for food production
  and functioning ecosystems e.g. nutrient recycling, soil protection, clean water
- The provision of ecosystem services such as water catchment and storage in
  wetlands, carbon sequestration and storage in agricultural soils
- The maintenance of valued cultural and historic landscapes
- Provision of amenities for public access, recreation and enjoyment
- The maintenance of rural culture (including traditional land management skills)
- The contribution to rural employment and the socio-economic viability of rural
  areas

Examples of the negative externalities of agriculture include issues such as diffuse
pollution of water, soil erosion and the degradation and outright destruction of
habitats.

The nature of public goods are such that it is difficult for farmers to capture the
benefits of producing them and neither do they pay the full costs of any damaging
arising from their actions. Collective action by farmers and other stakeholders is seen
as one solution to this problem by moving production ‘…closer to a Pareto optimum’
than would the self-interest of individuals and firms’ (Ayer, 1997 cited in Davies et al,
2004). The nature and scale of both the positive and negative externalities of
agriculture are also such that they can rarely be addressed by individuals and require
management across legal, administrative and land ownership boundaries and ‘…the
cooperation, or at least coordination, of multiple landowners’ (Davies et al, 2004).
Recognising that there is little incentive for farmers to provide public goods or
prevent the production of public ‘bads’, the role of both formal and informal
institutions in helping farmers to capture benefits or confront costs through
cooperation is of growing interest (Davies et al, 2004).

A landscape scale conservation approach which operates across larger areas and
recognises the role of multiple stakeholders in achieving ecosystem management is
therefore seen as a means of enhancing the delivery of public goods and preventing
the negative externalities of agricultural production. Climate change is also seen as a
key driver of the need for adopting landscape-scale approaches to conservation in
order to ensure the survival and adaptation of biodiversity and respond to problems
such as increased flood risk (Wildlife Trusts, undated). The approach is also
potentially a means of recognising the multiple benefits of land use
(multifunctionality) and could lead to a more holistic strategy for land use. Hine et al
(2008) in a report for the National Trust suggest, ‘Land management strategies and

---

3 The situation of a Pareto optimum being where no one person can be made better off without making
at least one other person worse off.
practices are currently unable to encapsulate need, expectation or opportunity and are not therefore reaching their full potential.’

2.3 Achieving Environmental Outcomes through Cooperation

The coordination and cooperation of multiple landowners and stakeholders appears to be a fundamental component of delivering a landscape scale approach to conservation and achieving environmental outcomes. There is a growing body of literature on this subject, some of which is relevant to natural resource management more generally and some of which has a particular focus on cooperation within the agricultural sector. Both types are cited here although the main focus of this project is on agricultural land management for environmental gain.

Cooperation, sometimes referred to as collaboration in the literature, can encompass a wide range of activities which vary depending on the scale, scope and purpose of cooperation. Davies et al (2004) make a distinction between bottom-up collective action (cooperation) and large multi-partner and multi-agency formal partnerships which cover a wide area, have defined objectives, formal operating structures and are supported by paid staff (coordination), recognising that the latter also represent a form of cooperation. In compiling a database of collective action initiatives in Scotland, Davies et al (2004) identified 9 different categories or types, providing a useful framework for considering cooperative initiatives more generally. These categories are:

- Large regional partnership organisations
- Agency or NGO-led broader programmes and schemes
- Green marketing schemes
- Production associations with joint environmental-production linkages
- Targeted NGO or agency led projects
- Extension or advisory service coordinated initiatives
- Estate based activities (land owner based)
- Discussion and education based groups
- Farmer-led environmental projects and organisations

The benefits of cooperation, and the challenges in achieving it, have been reviewed and discussed in a number of studies and papers (see Wondolleck & Yaffee, 2000; Yaffe, 2002; Wolf 2002; MacDonald, 2002; Davies et al, 2004; Mills et al 2006). Davies et al (2004) summarise the benefits as:

- Solving public goods problems
- Managing on an ecologically appropriate scale
- Harmonising multiple objectives
- Sharing and minimising costs
- Sharing knowledge
- Sharing and mobilising resources
- Increasing credibility of actions and objectives
- Allowing flexible, locally relevant responses
- Building capacity to cope with future changes
Yaffee (1998) (cited in Coughlin et al (1999)) asserts that cooperation between stakeholders can “overcome the inherent fragmentation in our society between multiple agencies, levels of government, public and private sectors, diverse interest groups, and different disciplines and value structures”. Coughlin et al (1999) in reviewing reasons why individuals chose to participate in collaborative partnerships identified the following categories:

- Empowerment of stakeholders
- New Strategy: breaking from traditional strategies and trying different approaches (innovation)
- Direct stake or responsibility in management of resources
- Coordination: to avoid duplicate work, accomplish more and gain pooled knowledge
- Community building: to improve relations and diffuse tensions

Yaffée (2000) recognises that collaboration in natural resource management is not without its critics arising from some concerns that responsibility for action may be passed from statutory authorities to individuals who may not necessarily act in the public interest. But, he argues that that such approaches are necessary to improve the state of the environment whilst also improving community level communication and cooperation. Davies et al (2004) also suggests that whilst the benefits of collective action are clear, developing such activities is not an easy task. Currently, farmers’ attitudes and incentive structures tend to work against collaboration and the required institutional approach is considered resource intensive. Mills et al (2006) highlight studies suggesting that the individualistic characteristic of farmers, which results in them maintaining a preference for individual management, is a key barrier to cooperative action. Initiating and implementing collective action is also costly and gives rise to transaction costs such as costs associated with negotiating collective management agreements or in monitoring and enforcing collective action (Singleton and Taylor 1992 cited in Davies et al, 2004). Cooperative approaches are most likely to work where the benefits achieved exceed the transaction costs associated with setting up and operating the necessary institutional frameworks or where costs can be met or minimised (Davies et al, 2004). Wiskerke et al (2003) suggest that environmental cooperatives, based on principles of self-organisation and self-regulation, are promising expressions of new forms of rural governance but that further development of such approaches is hampered by lack of institutional support from national government authorities. MacDonald (2002) highlights key challenges for collaboration as: scarce resources (time, energy and money); creating effective organisational structures; and, establishing shared visions and goals.

A number of studies emphasise the importance of building social capital and its role in lowering the transaction costs associated with collective action (Yaffée 2002, Pretty 2003, Davies et al, 2004). Social capital refers to aspects of social relationships such as social networks, trust and the norms of reciprocity; without building and maintaining social capital, it is argued that collective action is likely to be difficult to sustain.
2.4 Achieving Cooperation Among Farmers in the UK

There is a history of cooperative working among farmers in the UK although it appears to be less prevalent than in some other countries. Historically, cooperation among farmers tended to be borne out of necessity and was often a means of ensuring sufficient labour was available for key tasks. For example, communal activities such as sheep dippings and clippings, hay-time and shepherd’s ‘meets’ (meetings of farmers to return stray sheep to their owners) were once common in upland areas although appear to have declined in recent years (IEEP, 2004). The need to manage ‘common pool’ resources has also given rise to collaborative working arrangements and, in some cases, to underpinning legislation designed to facilitate this. The management of common land and of water levels/flood defences through Internal Drainage Boards (IDBs) are two primary examples of the latter.

Common land is land owned by one person over which another person is entitled to exercise rights of common (such as grazing animals or cutting bracken for livestock bedding), and these rights are generally exercisable in common with others. The land can be owned by statutory bodies such as parish councils or by private landowners. Some commons are managed by statutory bodies such as local authorities whilst others are managed by voluntary commoner’s associations which may or may not have a formal constitution. The legal history of common land is complex and securing effective management of commons is a particular challenge. For example, commons rights have frequently been sold on or leased to farmers away from the commons disrupting the overall management and making local control difficult. It has also been difficult to secure agri-environment agreements on common land with, in some cases, entry into agreements frustrated by an individual grazier or a small minority. The Commons Act 2006 was introduced to try to overcome some of the management problems facing commons. The Act enables commons to be managed more sustainably by commoners and landowners working together through ‘commons councils’, with powers to regulate grazing and other agricultural activities. Defra is looking to bring this part of the Act into force in Spring 2009. Commons Councils are not compulsory but the Act allows them to be set up where there is a local desire to do so. Councils will have powers to make rules by majority voting and which will be binding on everyone using the common. In this way, individual graziers or dissenting minorities will be prevented from blocking otherwise agreed activities and management regimes.

IDBs are independent bodies responsible for land drainage in areas of special drainage need, extending to 1.2 million hectares of lowland England. They are long established bodies operating predominantly under the Land Drainage Act 1991 and have permissive powers to undertake works to secure drainage and water level management of their districts. They may also undertake flood defence works on ordinary watercourses (except main rivers) within their district. The work of IDBs involves the improvement and maintenance of rivers, drainage channels and pumping stations. There are now some 170 in England and Wales, concentrated in East Anglia, Yorkshire, Somerset and Lincolnshire. Board membership includes elected members representing the occupiers of the land in the district and members nominated by local authorities to represent other interests4. JBA Consulting (2006) undertook a review of IDBs for Defra and made a number of recommendations for improving their

4 http://www.defra.gov.uk/Environ/Fcd/policy/opauthsidb.htm
performance and operation. These included bringing the operation of IDBs under the strategic guidance of the Environment Agency and improving their governance, representation, internal accountability and transparency. However, the review concluded positively that:

‘In low lying areas requiring water level management to meet the needs of agriculture, the environment, and flood risk management there is a continuing role for a locally-elected Board, raising most of its own income locally and setting local priorities. IDBs have a unique capability which derives from their local accountability, knowledge, labour force and expertise, together with their ability to raise revenue directly and to borrow.’

Cooperative marketing of produce has also been a growing trend in recent years in the UK, encouraged by the Policy Commission on the Future of Farming and Food report (2002) which stated: ‘We strongly believe that the security of a profitable production base in England depends on a much greater level of collaboration than we have seen historically.’ The Commission’s recommendations led to the establishment of the English Farming and Food Partnerships and enhanced grant aid for projects seeking to strengthen or expand collaborative activity.

The potential for greater cooperation among farmers in the UK in order to achieve environmental outcomes has been explored in a number of studies and papers. Two UK studies are of particular interest in relation to farmer cooperation. Davies et al (2004) studied the challenges in creating local agri-environmental cooperation action amongst farmers and other stakeholders based on a review of initiatives in Scotland. The key findings are worth reflecting on in full, as follows:

1. Farmers generally prefer to work independently rather than in groups
2. Farmers are unlikely to identify the environmental benefits of cooperative action by themselves. They do not see it as their role, nor their area of expertise, to identify opportunities for collaborative environmental working
3. Current incentives to encourage collective action among farmers are weak
4. Farmers are predominantly focused on business profitability
5. Farmers perceive a lack of understanding of their business situation in some environmental initiatives; and a difficulty in achieving representation of their interests in some processes
6. Partnership initiatives and activities tend to build on existing informal and information networks rather than generate entirely new networks
7. Support for initiatives is best promoted by farmer-farmer networking and communication
8. There is a diversity of local conditions and contexts, particularly in the divide between the situation of crofting areas and other farming systems in relation to local cooperation
9. Farmers perceive there are many single issue environmental projects but a lack of joined-up initiatives

The researchers make a number of recommendations in response to these findings which include:
• The need for funding of dedicated, locally embedded, collective action coordinators who can help to identify opportunities for collective action (e.g. through a programme of local ‘futures’ exercises), identify and secure funding and identify linkages across initiatives
• The need for funding to support and reward collaborative environmental ventures e.g. through Rural Development funding
• Broaden the remit of existing advisory services to encourage collaborative initiatives
• Provide training in partnership management and farm business management for agency and project related staff involved in supporting collaborative action
• Strengthen existing farmer networks and review the need for recognised group structures for collaborating farmers

A further study by Mills et al (2006) reviewed delivery mechanisms for Welsh top-tier agri-environment schemes focusing on cooperative action. Following review of a number of case study initiatives in the UK and mainland Europe, the researchers drew the following conclusions:

1. To deliver maximum environmental benefit, some form of geographical targeting is required.
2. The case studies highlighted the benefits of a facilitator or co-ordinator to support farmers in gaining access to information and knowledge, and developing collective action within farmer groups.
3. The offer of incentives will assist in farmer engagement with group schemes.
4. Start on a “small and simple” basis with immediately tangible outcomes.
5. Aim to work with existing farmer groups in the target area. In the absence of existing groups assist in the capacity building of new groups.
6. Assist new groups and/or existing informal groups, in the establishment of a structure and constitution.
7. Operate a simple accountable and transparent system of payments that is based around a composite payment to a locally based structure which is then responsible for dividing it up between group members
8. Partnership working between facilitator, farmer groups and scheme officials increases the legitimacy and support for a scheme as farmer groups are made to feel a part of the process.
9. Sustaining the group’s interest is vital for on-going action.
10. Engage farmer groups as fully as possible in the monitoring processes.
11. Encourage on-going development of groups through demonstrations and inter-group associations.

The researchers made 32 recommendations in response to these conclusions, many of which accord with those made by Davies et al (2004) for example: the need for funded coordinators; the need for locally specific action; the need for funding, both to support cooperative groups and to reward conservation action; and, the importance of farmer networks. Together, these two studies provide an important knowledge base on which to build understanding of the opportunities for, and barriers to, greater cooperation between farmers and other stakeholders.
This brief literature review suggests there is considerable potential for agricultural landscape scale conservation. This can be defined as an approach which seeks to achieve public goods, including wildlife conservation, through action by multiple landowners in a clearly defined landscape, over and above what could be achieved by individual action. The remainder of this report reviews examples of projects and initiatives which embody some, or all, elements of this approach and, considers what lessons can be learned from them.
3. **Agricultural Landscape Scale Conservation: a brief review of relevant initiatives**

3.1 **Introduction**
This chapter offers a brief review of a selection of UK and non-UK initiatives that are potentially of interest in relation to the subject of agricultural landscape scale conservation. The aim of this initial review was to provide an overview of the sort of initiatives currently in operation and produce a list from which to select a number of case studies for further investigation.

3.2 **Identification of relevant initiatives**
The existing literature suggests a range of different types of landscape scale conservation initiatives and collaborative projects can be found operating in the UK and mainland Europe. These range from large-scale regional partnerships which seek to coordinate the activities of multiple partners to achieve common goals and more bottom-up, farmer or community led cooperatives. For the purposes of this research, initiatives established to achieve one or more of the following were of particular interest, including those that:

- address specific environmental issues related to agricultural land management including the conservation of species and habitats, landscape conservation, water quality or soil management
- operate within biogeographic areas or zones rather than follow administrative boundaries
- seek to address problems or issues that, for the most part, cannot be achieved by individual farmers/landowners or agencies/organisations acting alone
- seek to achieve co-ordination of multiple partners, including landowners, in order to achieve environmental (or other) outcomes
- encourage cooperation between farmers/landowners in a defined area to achieve environmental (or other) outcomes
- encourage community engagement and the building of social capital in addressing environmental problems or achieving environmental goals
- make use of particular policy tools e.g. incentives or advice in defined areas in order to achieve environmental outcomes

Relevant initiatives were identified through a process of literature review, web-based research, the researcher’s own knowledge and work on related projects. A list of 45 initiatives identified by this initial search is presented at Annex 1. The majority of initiatives operate in the UK but 10 are drawn from mainland Europe or from further afield in the USA, New Zealand and Australia\(^5\). Most are focused on addressing

\(^5\) The search did not cover developing countries although agricultural cooperatives and approaches to participatory extension are increasingly found there, mainly used to promote agricultural development or sustainable rural development. Whilst there are many examples of such initiatives and programmes in developing countries, their applicability to the UK situation was thought to be too limited to warrant consideration here.
environmental issues through land management but a few have been established to promote farm business development or achieve broader rural development objectives.

3.3 Overview of different types of initiatives
A wide variety of initiatives and projects are identified at Annex 1; each unique in the way they set out to meet their stated goals and which, to some extent, defy easy categorisation. However, to better understand the nature of these initiatives an effort has been made to identify some common types and define their distinguishing characteristics, drawing on types identified by Davies et al (2004). These types are not intended to be definitive and there is some degree of overlap between them. Equally, some initiatives could be included under a number of different types due to the varied nature of their activities.

3.3.1 Multi-partner initiatives
This is by far the most common type of initiative identified involving a range of partners working in a co-ordinated way to achieve a shared vision and agreed objectives. Such partnerships usually operate within a defined area which is often, but not always, selected on the basis of particular biogeographic characteristics e.g. a water catchment or predominant habitat type. The objectives of existing initiatives vary and include: biodiversity and landscape conservation; improved water management; farm business development; and, sustainable rural development. Such partnerships vary from having a lead partner to adopting a more formally constituted project board or management group. Partners commonly found participating in such initiatives include statutory agencies, National Park Authorities and NGOs e.g. RSPB, Wildlife Trusts and may include business partners e.g. water companies. Funding is usually provided by the project partners but other sources may also be relied on e.g. Charitable Trusts and the National Lottery. Many initiatives also appear to rely on other existing sources of funding e.g. agri-environment and rural development funds. Such initiatives frequently employ project officers to coordinate and take forward activities. Where achieving conservation objectives relies on engaging farmers and landowners, this is most frequently on a 1:1 basis e.g. through the provision of advice to individuals and encouraging farmers to enter agri-environment scheme agreements. Some initiatives may encourage and support cooperative land management. Levels of community engagement vary across initiatives and can range from consultation on plans and activities, through creating opportunities for participation e.g. volunteering, to educational activities and creating opportunities for access and recreation.

Examples of initiatives:

West Weald Landscape Partnership – Sussex Wildlife Trust led partnership working at landscape scale to conserve and enhance the environment with a focus on core forest areas. The partnership aims to establish better connections between sites by working with farmers and landowners.

Limestone Country – A Yorkshire Dales National Park led partnership to restore and enhance 1500 ha of wildlife habitat by encouraging a return to mixed farming and the re-introduction of cattle. The project has facilitated the production of management plans, provided advice and funding to landowners and run best practice demonstration events.
The Gower Commons Initiative - Gower Heathland Partnership brings together diverse partners who work with land owners, commoners and others to sustain the commons of the Gower for grazing, nature conservation and access. Activities include bracken control and habitat management. The project facilitates much of the work through the Gower Commoners Association and volunteers.

3.3.2 Advisory initiatives
The main aim of this type of initiative is to provide advice to farmers and landowners in order to achieve specific environmental outcomes in defined areas. Initiatives may be led by one organisation or constitute partnership arrangements. Advice may be delivered through a variety of approaches including: 1:1 farm visits, farm demonstrations, workshops and other events. Project officers are commonly employed to deliver advice and co-ordinate activities within an area.

Examples of initiatives

England Catchment Sensitive Farming Delivery Initiative – a Defra led and funded initiative (in partnership with NE and EA) to address diffuse water pollution from agriculture, operating in fifty priority catchments throughout England. Catchment Sensitive Farming Officers work in each catchment. Engagement with farmers is the main objective with advice delivered through farmer events and farm visits. Catchment Steering Groups, involving local stakeholders, help to oversee the work in each catchment.

Bowland Wader project - an RSPB led project, part of a wider Birds of Bowland (multi-partner) initiative, to encourage farmers and landowners to adopt land management practices that benefit breeding waders. Farmers receive free advice and support re agri-environment scheme applications.

Dartmoor Hill Farm project – Dartmoor National Park Authority led project to help Dartmoor farms with advice, guidance, collaborative activities, communication and funding. Includes training and running events and has established various sub-projects including Dartmoor Skills Apprenticeship.

3.3.3 Cooperative marketing
This type of initiative consists of groups of farmers, in a defined location, coming together on a voluntary basis to market farm produce. The main aim is to improve the overall viability of farm businesses. The management and coordination varies from initiative to initiative.

Examples of initiatives

Bowland Farmers Cooperative - a small group of farmers who work together to market and promote quality, locally branded products, primarily meat produced in an environmentally friendly way, including products branded as Bowland Forest Foods, Heather Reared Lamb and Lancashire Pride.
Cambrian Organics - A small group of Welsh organic farmers with shared values who work together to market and sell produce through local markets, a box scheme and mail order.

3.3.4 Farmer Discussion and Education Groups

This type of initiative brings groups of farmers together to provide discussion and learning opportunities, often in relation to farm business development but, in some cases, in relation to addressing environmental problems. Programmes and initiatives tend to be supported and funded by Governments and/or industry. Facilitators play a key role in supporting group discussion and activities.

Examples of initiatives

Monitor Farms – a New Zealand model now applied elsewhere including Scotland. They are farmer-owned community run groups which elect one member to be a central monitor farm for three years. This farm is then used as an example to motivate other group members and to improve farm performance in the local group area. Groups include farmers, vets, ancillary industries and are supported by a facilitator chosen by the group. There are currently 11 monitor farm projects running in Scotland.

Agrisgôp - Developed as part of the Farming Connect programme in Wales. This is a free programme helping farmers to develop skills, ideas and future plans for business. Groups of farmers at local level are led by facilitators.

3.3.5 Farmer/community groups

This type of initiative includes farmer/landowner or community led groups working together to achieve conservation or sustainable land management objectives. Relatively few examples of such initiatives are found in the UK with most examples coming from mainland Europe or further afield. Administrative and funding arrangements vary across initiatives but this type of initiative represents a more bottom-up, community focused approach to land management than other types. Activities vary but often include habitat management and restoration.

Examples of initiatives

Environmental Cooperatives - Cooperatives active throughout the Netherlands at local level e.g. VEL and VANLA, to improve environmental management through integrated agriculture, pollution control and nature management.

Landcare - National network of locally based community groups (Australia, New Zealand and USA) working to improve the management of natural resources through a variety of actions and initiatives. In Australia, more than 40% of farmers are involved in Landcare. Project example: Tarcuta Creek Rivercare Plan involving 100 landholders to protect streams, plant trees and shrubs and erect fencing to reduce soil and streambank erosion.
Malpai Borderlands Group - Landowner-led non-profit organisation in southeastern Arizona and southwestern New Mexico aiming to implement ecosystem management on 1 million hectares bringing together ranchers, scientists and key agencies undertaking land restoration, endangered species habitat protection and ranch improvements.

Landscape Scale Conservation on the Isle of Eigg, Scotland - Isle of Eigg Heritage Trust led project to deliver sustainable land management through community action including habitat management and recreation.

3.3.6 Other initiatives

The search for relevant initiatives and projects identified a few other examples that cannot be easily assigned to any one of the above types but which are of interest in relation to land management. They include estate based initiatives and land trusts, as follows:

Sustainable Development on Glenlivet Estate – a Crown Estate initiative on a 23,000 ha Highland owned estate including a range of projects designed to benefit the local community and the natural environment and demonstrate the benefits of an integrated approach to land management.

Land Trusts - Charitable organisations operating at local and regional levels in the USA to conserve land for its natural, recreational, scenic, historical and productive value. Land Trusts can purchase land for permanent protection, accept funds or donations for land purchase, accept donations of conservation easements or, in some instances, purchase conservation easements. Conservation easements essentially buy-out private property rights and impose restrictions (often in perpetuity) on land owners e.g. preventing ploughing of grasslands.

3.4 Case Study Selection

Having identified a range of initiatives and different types of approaches to achieving environmental objectives at landscape scale, the next step was to better understand how such initiatives work in practice, with particular regard to:

- Establishing aims and objectives
- Administrative and legal arrangements e.g. the designation of a co-ordinating authority or establishment of formal partnerships or co-operatives
- Funding – both for running initiatives themselves and to secure appropriate land management e.g. capital grants, incentive payments etc
- The provision of information and advice
- Levels of animation or facilitation e.g. through Project Officers
- Levels of community engagement

The aim of this analysis was to identify the strengths and weaknesses of different conservation approaches, identify barriers to cooperative management of agricultural land and those factors that might help to facilitate it and to learn lessons for the future. In order to undertake a more detailed analysis, a number of case studies were selected.
from the list of identified initiatives, in consultation with the project funder. Case studies were selected in order to:

- Represent a range of different environmental issues being addressed e.g. biodiversity conservation, improved water management
- Include at least one of each type of initiative identified by the initial review
- Give as wide a geographical spread as possible
- Give particular emphasis to initiatives that encourage cooperative management of agricultural land i.e. farmers or landowners working together in a contiguous area to achieve a common objective

### Selected Case Studies

<table>
<thead>
<tr>
<th>No</th>
<th>Name (and location)</th>
<th>Issue addressed</th>
<th>Type of initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pumlumon Large Areas Conservation project (Wales)</td>
<td>Biodiversity and Landscape Conservation</td>
<td>Multi-partner</td>
</tr>
<tr>
<td>2</td>
<td>SCaMP (England)</td>
<td>Improved water management</td>
<td>Multi-partner</td>
</tr>
<tr>
<td>3</td>
<td>Breadalbane Initiative for Farm Forestry (Scotland)</td>
<td>Farm business development/cooperative marketing/farm woodland management</td>
<td>Multi-partner</td>
</tr>
<tr>
<td>4</td>
<td>Community Commons (England)</td>
<td>Biodiversity conservation</td>
<td>Multi-partner/community group</td>
</tr>
<tr>
<td>5</td>
<td>Catchment Sensitive Farming Delivery Initiative (England)</td>
<td>Improved water management</td>
<td>Advisory</td>
</tr>
<tr>
<td>6</td>
<td>Monitor Farms (Scotland)</td>
<td>Farm business development</td>
<td>Farmer Discussion groups</td>
</tr>
<tr>
<td>7</td>
<td>Malpai Borderlands Group (USA)</td>
<td>Sustainable land management</td>
<td>Farmer/community group</td>
</tr>
<tr>
<td>8</td>
<td>Landcare (Australia)</td>
<td>Sustainable land management</td>
<td>Farmer/community groups</td>
</tr>
<tr>
<td>9</td>
<td>Environmental Cooperatives (Netherlands)</td>
<td>Environmental land management</td>
<td>Farmer/community groups</td>
</tr>
</tbody>
</table>

NB: The original selection included Bowland Farmers’ Cooperative as an example of a cooperative marketing project. It was not possible to complete this case study due to a lack of available information and it was subsequently eliminated from the final list. The Breadalbane Initiative for Farm Forestry includes aspects of cooperative production and marketing of timber products.
4. Case Studies

This Chapter presents the nine case studies in full. Each follows a standard format of:

- introduction;
- objectives;
- legal and administrative arrangements;
- funding;
- animation and facilitation;
- advice and information;
- engagement with farmers/community engagement;
- environmental and other benefits;
- key lessons from this approach.

The information presented is drawn from published reports and evaluations, project websites and project literature and supplemented in most cases by semi-structured telephone interviews with project staff.

The case studies are presented in the following order:

1. Pumlumon Large Areas Conservation project
2. Sustainable Catchment Management Programme (SCaMP)
3. Breadalbane Initiative for Farm Forestry (BIFF)
4. Community Commons
5. England Catchment Sensitive Farming Delivery Initiative (ECSFDI)
6. Monitor Farms
7. Malpai Borderlands Group (MBG)
8. Landcare
9. Environmental Cooperatives
4.1 Case Study 1: Pumlumon Project, Wales

Introduction
The Pumlumon Project is a long term (15 year project) led by the Wildlife Trusts Wales (WTW) that seeks to encourage the sustainable development of the Pumlumon area. The project is in its initial stages. The project area covers approximately 30,000 ha of upland landscape in the Cambrian Mountains and supports at least ten local communities, 250 farm holdings, plus tourist facilities and services. A core zone of approximately 5,000 hectares is designated as a Site of Special Scientific Interest (SSSI) and much of the area falls within the Cambrian Mountains Environmentally Sensitive Area (ESA). This core zone is dominated by a mosaic of locally, nationally and internationally important habitats and species such as dry and wet dwarf-shrub heath, blanket bog and a number of oligotrophic lakes. The area is important for breeding, wintering and feeding birds particularly the hen harrier, merlin, short-eared owl and red and black grouse. The Pumlumon Area is the largest watershed in Wales and the source of eight rivers including the Severn, Wye and Rheidol. The area is highly valued in landscape and biodiversity terms but intensive land use, especially sheep production, has resulted in loss of biodiversity with many habitats lost or degraded to poor condition. Overgrazing and soil compaction contribute to increased flooding in lowland areas. The WTW has 2 nature reserves in the area, each of about 300 hectares. It was the ownership of these reserves and the leasing of shooting rights on adjoining land that led WTW to want to undertake a larger project at landscape scale.

Objectives
The overall vision for the area is stated as:

‘The Pumlumon Project will provide a sustainable landscape that supports a renewed wealth of biodiversity, a place where people can thrive and make a living from the land and a place where people can go to experience a unique culture and natural heritage.’

The underpinning objectives are to:

1. Build capacity within rural communities to ensure the future of sustainable hill farming including the conservation of local natural and cultural heritage
2. Provide appropriate mechanisms to enhance, expand and reconnect natural upland habitat features, and the wildlife they support
3. Actively promote the financial and cultural links between farming, wildlife conservation, local communities and commercial enterprise and the combined opportunities they provide
4. Advance the education of the public and local communities, emphasising the important relationships between sustainable upland hill farming, agriculture and wildlife conservation
5. Provide advice, means and support for local people to implement innovative and sustainable projects
6. Widely promote the natural beauty and cultural heritage of the area and encourage innovative tourism, recreation and farm diversification opportunities

7. Lobby both partner organisations and external bodies to ensure that landscape-level conservation is viewed positively.

Legal and administrative arrangements
The project is a partnership between WTW, Countryside Council for Wales, Forestry Commission, Environment Agency and John Muir Trust and is supported by other organisations. There is no formal Memorandum of Understanding between partners. The project has one dedicated Project Officer and up to 8 other staff are engaged in different aspects of the project (4-5 on delivery and the remainder dealing with administrative aspects). A strategic and financial framework has been created for the project to guide activities and has three main elements: conservation of natural heritage; sustainable communities; and, commercial enterprises.

Funding
The project is funded from a variety of sources including public and private funds. CCW and the Environment Agency have both contributed funds and WTW fund staff. Further information on sources of funding for the project was not available.

Animation and facilitation
The project is intended to be a grass roots project delivered by local landholders, communities and businesses under the guidance of the strategic framework. There is already one full time Project Officer employed to help with this process and other staff may be appointed in due course. For example, the project hopes to employ an education, training and volunteer organiser, conservation advisors and a Community Projects Officer. It is envisaged that staff will help to stimulate a wide range of activities and related projects that contribute to the overall sustainable development of the area.

Advice and Information
As the project progresses, it is envisaged that a range of advisory and information services will be provided. This will include:

- Producing tailored Farm Plans with three equally weighted elements:
  - farm landscape plan produced by conservation advisory officers identifying the contribution the farm can make to the overall Whole Area Landscape Strategy
  - farm resource plan evaluating the capacity of the farm to switch to traditional breeds of livestock, farm for wildlife or produce renewable energy
  - business development plan identifying opportunities for diversification, marketing of produce, training and re-skilling etc
- general business advice and training, support and advice about potential business ventures
- an enabling advisory service to local people about setting up groups and viable community projects and seeking funding
distributing up to date literature and information to groups on behalf of other groups, local Government, Government agencies and other organisations

Engagement with farmers/community engagement
There has been considerable engagement with the farming community – one of the first tasks undertaken. WTW staff members have held group meetings with farmers in the Pumlumon area to discuss and understand the issues facing them. The local NFU chairman was approached to help make initial contacts with farmers. Reactions to the project have generally been very positive although some farmers remain wary or disinterested. However, many farmers feel they face an uncertain future and are keen to explore ideas and opportunities for business development. A social economist has been employed and is currently talking to local businesses about opportunities for business development in the area. A funding bid is currently being prepared for developing an outward bound centre. A ‘Friends of Pumlumon Project’ group has been established to provide an avenue for members of the local community to support the project.

Environmental and other benefits achieved
The project is in its early stages and initial work is being piloted on 1,000 hectares around the Trust’s largest reserve in the area, Glaslyn. A number of conservation projects are already underway including: a demonstration project for cattle grazing; flood water management; and, habitat restoration. The cattle grazing project involves a local farmer grazing cattle on Trust’s reserve to demonstrate to other landowners that cattle grazing is feasible in the area. Cattle grazing was once common but the area is now regarded as traditional Welsh sheep-walk. On the moorland, work such as the blocking of ditches has been undertaken and an acid grassland restoration project is underway. The Forestry Commission have also provided grants for tree planting.

It is hoped that a range of economic and social benefits will flow from the project as activities progress, for example, through the development of local businesses, providing access and recreation opportunities and through educational work. At this stage in the project development, no on-the-ground benefits have yet been identified.

Key lessons from this approach
The project has set some ambitious goals and aims to act as a catalyst for a wide range of economic, social and environmental activity in the Pumlumon area. The project is in its early stages and it is difficult to judge at this stage how effective it might be. WTW have emphasised the difficulty in finding on-going funding for a project of this nature. In these early stages, they emphasise the importance of ‘winning the hearts and minds’ of land managers and the local community and of the need to change the culture of land managers from focusing on agricultural production towards a more conservation orientated and collaborative mindset.
4.2 Case Study 2: Sustainable Catchment Management Programme (SCaMP), England

Introduction
SCaMP is a five year project (2005-2010) led by United Utilities and the RSPB to improve water quality and benefit biodiversity. United Utilities owns 57,500 ha of land which is the gathering grounds for reservoirs which are the primary source of water for 6.7 million people living in the North West of England. Some 17,500 ha of this land is designated as Sites of Special Scientific Interest, contains priority habitats such as blanket bog and heather moorland and is home to species such as the hen harrier, curlew and stonechat. Most of this land is farmed by tenant farmers and how the land is managed is critical to both its conservation value and to protecting water quality. The project will focus on 20,000 ha of land in the Trough of Bowland (designated an Area of Outstanding Natural Beauty) and the Peak District (a National Park).

Objectives
The project aims to work with farmers and land managers and others to ensure sustainable management of the water catchment. The vision for 2010 is:

- For Sites of Special Scientific Interest to be in prime condition
- To improve water quality
- To halt the decline in birds such as twite and hen harriers
- Restore important habitats and landscapes such as blanket bog and heather moorland
- To support economically viable farming which helps to maintain and enhance special habitats and wildlife as well as water quality

Work will include:

- Restoring blanket bogs by blocking drainage ditches
- Restoring areas of eroded and exposed peat
- Restoring hay meadows
- Establishing clough woodland
- Restoring heather moorland
- Providing new farm buildings for indoor wintering of livestock and for lambing
- Providing new waste management facilities to reduce run-off pollution of water course
- Fencing to keep livestock away from areas such as rivers and streams and from special habitats

The aim is for all farmers entering the project to have long-term management plans, following a standard template, drawn up for them which support achievement of the SCaMP objectives. The plans are drawn up by RSPB and United Utilities staff, supported by officers from Lancashire Rural Futures and the Peak District National Park Authority. The plans are negotiated with tenants and approved by UU and
RSPB. The plans, which identify capital works needed and appropriate land management, are implemented using funding from different sources.

**Legal and administrative arrangements**

United Utilities and the RSPB have a formal, national Memorandum of Understanding that establishes a basis for partnership working between the two organisations. SCaMP began life as a pilot project in the Peak District and was subsequently extended to the Forest of Bowland. The current project runs until 31 March 2010. UU is currently making a new bid for funding for 2 new areas in the Lakes and central region. There is a National Stakeholder Group consisting of OFWAT, Environment Agency, DWI, Natural England, Department for Environment, Food and Rural Affairs and the Countryside Council for Wales. Both SCaMP areas (Forest of Bowland and Peak District) have a local Stakeholder Group, the membership of which reflects interests within each area.

The partnership has also been supported by the Forestry Commission, key players in the woodland elements of SCaMP, and the Peak District National park Authority and Bowland AONB.

UU have appointed a Project Manager for SCaMP. Other UU staff are engaged in the process of producing and approving farm plans. An RSPB member of staff has been seconded 4 days per week into UU. There is 1 RSPB member of staff on the ground in each of the two areas.

A formal process has been established by UU and RSPB for signing off farm plans internally. Once approved, NE also give their consent and the plans are also sent to the North-west England Regional Biodiversity Forum to sign off the Biodiversity Action Plan objectives.

**Funding**

OFWAT has allowed United Utilities to fund the programme as part of its AMP4 investment programme. Some £9.1 million has been made available for capital works in the two selected areas. This has been used to attract additional capital grants of over £2 million. Capital grants contribute to infrastructure such as farm buildings to house livestock, fencing and waste management facilities. NE are contributing significantly in terms of funding restoration work and are key to farmers accessing agri-environment payments (both Environmental Stewardship and Higher Level Stewardship) for land management. FC has provided funding through the English Woodland Grant Scheme. These payments and grants are critical to supporting the land management practices identified in the farm plans. The marriage of public and private sector funding is seen as particularly advantageous to achieving conservation objectives.

Funding was offered on a competitive basis i.e. presented as a limited pot of money, in order to encourage farmers to come forward and enter into management plans.
Animation and Facilitation
Both UU and the RSPB have appointed staff to ensure its effective implementation and have had an active presence on the ground. A number of events were organised and publicity work undertaken to communicate to farmers what the project was about.

RSPB staff have played a critical role in animating the project as a whole and working on the ground to make things happen. A key part of the process is the negotiation of the farm plans and subsequent agreements with tenants. The RSPB played a major role in this process and was seen as more ‘neutral’ than UU (in this case the landlord) and able to offer more independent facilitation.

Advice and information
The production of farm management plans and helping farmers apply for agri-environment and woodland grant funding are key activities for staff on the ground. An RSPB member of staff has been seconded 4 days per week into UU to produce plans and lead negotiations with tenants on the management plans. Other RSPB staff help farmers to apply for agri-environment and woodland grant schemes. UU has appointed a Project Engineer in each of the two areas who is responsible for managing on-site capital works contracts. Capital works are being undertaken by approved contractors Dinsdale Management Services and Tilhill. Farmers are therefore given substantial support in taking forward implementation of the management plans.

Engagement with farmers/community engagement
Staff met farmers early in the process of preparing management plans but the initial plans were not developed in consultation with farmers. UU and RSPB wanted to prepare plans in the first instance to maximise the desired outcomes, recognising that the process of negotiating agreement with farmers was likely to result in some scaling back of ambitions. In general, the project appears to have been well received by farmers and farmers did not attempt to significantly scale-back proposals in the management plans. The substantive funding available for both capital works and ongoing land management appears to have been a considerable incentive for farmers to get engaged and, in many cases, undertake work on their farms that was already seen as desirable, especially in relation to capital works e.g. construction of new livestock buildings.

There was some initial reluctance on the part of some tenant farmers to get involved with the project. Some were sceptical that UU would use the improvements being made to farms as an argument to increase rents but this has not materialised. The RSPB also noted a generational effect on the way in which the project was received with some older farmers having reservations but younger farmers (often the sons of the older generation) being much more receptive. The RSPB considers a key factor in making the project work was face-to-face engagement with tenant farmers around the kitchen table.

There was no wider community engagement undertaken as part of this project, beyond the stakeholder consultation.
Environmental and other benefits achieved
The project is anticipated to result in significant benefits in relation to improving water quality and conserving biodiversity. A substantive programme of monitoring is taking place to assess the effects of changes in land management on water quality, hydrology, habitat and biodiversity. The RSPB is carrying out bird monitoring and Penny Anderson Associates Ltd have been contracted to undertake wider monitoring. Additional work is being undertaken to monitor the effects of land management on flooding. A socio-economic study has also been funded and will consider, among other issues, the cost-effectiveness of this approach and its transferability.

The project is expected to deliver significant environmental benefits at landscape scale by bringing farms, mostly contiguous land holdings, into similar management regimes designed to achieve over-arching objectives and through the provision of substantive capital grants and land management payments. Targeting specific landscapes, and investing time and resources has allowed the project partnership to build momentum and encouraged landowners and agencies to work together to achieve common goals. The RSPB consider that the project is of particular benefit in showing farmers that managing land for public goods – for water quality, biodiversity, and carbon storage – is both highly valued and can offer a realistic income stream, alongside agricultural production.

Key lessons from this approach
This project would appear to offer a number of lessons in relation to achieving agricultural landscape scale management:

- Being able to draw on different types of funding allowed the project team to put together a package of incentives that were attractive to farmers. Capital grants were seen as particularly important, paying for infrastructure that made the whole project work.
- Employing project officers on the ground to engage with farmers on a 1:1 basis and discuss and agree relevant land management activities was essential.
- Focusing on defined areas enabled the project partners and a wide range of agencies to come together and work with farmers to manage land to meet multiple environmental objectives.
- The project is of a sufficiently long time span to establish a presence in the selected areas and build momentum and should, through capital works and ongoing agreements, leave a lasting legacy.
4.3 Case Study 3: Breadalbane Initiative for Farm Forestry, Scotland

Introduction
The Breadalbane Initiative in Farm Forestry (BIFF) began in 2000 as a partnership between agencies and farmers/land managers to explore ways to integrate farming and forestry and to maximise the under-utilised potential of farm forestry in the Breadalbane Environmentally Sensitive Area (ESA) (see Map 4.3). The original idea appears to have been generated by a few active members of the farming community. A number of pilot projects operate under BIFF including: Adding Value to Farm Woodlands; a project to establish silvo-pastoral systems; and, support to the Forestry Commission woodfuel officer to establish supply chains. The Adding Value to Farm Woodland project was initially piloted as a 2 year project beginning in 2006. This grant scheme helps farmers find new ways to make the most of their woodlands and woodland products by encouraging woodland management and diversification of farm businesses. BIFF and its associated projects recognise that there is a high proportion of small woodlands in the Breadalbane area which usually remain unmanaged as it is uneconomic to do so. Effective management of woodlands to benefit woodland value, biodiversity and access requires regular work such as thinning and pruning to achieve the best quality trees and fit in with market requirements e.g. for furniture making, fence posts or chip biofuel. A lack of suitable machinery in the area was recognised as factor contributing to small woodlands remaining undermanaged. BIFF actively encourages investment in small forest machinery to enable management.

Objectives
BIFF seeks to maximise the under-utilised potential of farm forestry in the Breadalbane area. Its broad aims (as stated in the 2006-2009 Operational Plan) are:

- To enhance the environmental and economic value of existing and new woodlands on farms,
- To increase the value of a wide range of woodland outputs (from timber to non-timber forest products (NTFP)).
- To increase the economic and social value of woodland by integration of management and activities within and between farms in co-operative measures.

Its specific objectives are:

- To directly involve a high proportion of the target farmers and landowners (c 220) in farm forestry.
- To increase farmer-awareness and technical knowledge of forestry and related activities.
- To identify and deliver a wide series of management measures to enhance the environmental and productive capacity of existing woodlands on farms.
- To add value through on-farm use of farm timber and higher value sales off-farm.
- To develop co-operative measures as means to spread the economic benefits, reduce unit costs and provide peer support to enhanced woodland management and on-farm integration.
• To raise awareness of the benefits to be gained from managed access and conservation initiatives in farm woodland.
• To provide an area for new and innovative pilot schemes to take place.
• To enable farmers and landowners to help deliver and comment on policy changes in agriculture and forestry.

A range of projects and activities are taking place under the Initiative to help achieve these objectives.

Legal and administrative arrangements
BIFF is managed by a working group of funding partners including Forestry Commission Scotland, Scottish Government, Perth and Kinross Council, Perth and Kinross Countryside Trust, the Project Officer and local farming representatives. There is also a farmer-led BIFF Steering Group to incorporate wider land management interests in the area. This has approximately 10 elected farmer members and meets every two months or so. BIFF has a formal operational plan, the current version covering 2006-2009.

Funding
Funding for BIFF is provided by the above mentioned project partners. The Adding Value to Farm Woodlands project had an initial budget of £100,000. Under this project, farmers can receive grant aid for up to 40% of agreed costs up to a maximum of £30,000 per applicant. The Scottish Rural Development Programme (SRDP) is also a source of funding for woodland management and other related activities such as new planting and managing field margins and hedgerows. BIFF advises farmers and land managers on accessing such funds.

Animation and facilitation
BIFF (through Perth and Kinross Council) employs a project officer whose role it is to:

• coordinate and implement the BIFF operational plan including liaising with stakeholder groups and working with farmers and agencies to identify potential uses and markets for farm produce timber and to provide technical advice and support to farmers in the Breadalbane area
• promote and monitor the uptake of new initiatives introduced by the BIFF partnership to encourage more pro-active management of farm woodlands
• work closely with the BIFF partnership, the FCS woodfuel officer and other relevant agencies to deliver the outputs of associated projects including identifying woodfuel clusters to form a woodfuel supply chain, co-ordinating visits to other projects to fact find and organising training and promotional events to demonstrate best practice and raise awareness.

The Project Officer plays a key role in animating the Initiative and related projects and ensuring the overall objectives are met. He acts as one of the main points of contact for farm woodland management in the Breadalbane area, is able to maintain an overview of what activities are taking place and can help to put people with similar interests in touch with each other. The Project Officer is based in the local Forestry Commission office and has access to office space and facilities at the local agriculture
department offices. This facilitates liaison between the different agencies and means the Project Officer can keep in touch with relevant staff.

Advice and Information
As highlighted above, the Project Officer has a key role to play in providing technical advice and information to farmers and land owners on farm woodland management and sources of grant funding e.g. through the SRDP. BIFF aims to organise three farmer-orientated training or awareness events per year on subjects such as woodfuel, uses of timber and woodlands/shelterbelt management. The Project Officer facilitates the overall flow of information in the area and produces a quarterly newsletter which helps to disseminate information about BIFF more widely. A website for BIFF is currently under development and will be a source of information and advice for those interested in woodland management. It will be a place where local people can advertise services and make connections with others interested in woodland management and related enterprises.

Engagement with farmers/community engagement
The Project Officer plays an active role in engaging with local farmers and land managers, visiting both those who seek advice and information and other, new farmers in order to raise awareness of and interest in what BIFF has to offer. The Project Officer considers there is a strong sense of community in the Breadalbane area but most farmers are focused on their individual businesses and will seek to cooperate only where they can see a business advantage in doing so. There is currently uncertainty among the farming community about their future prospects and some confusion as to what grants and payments are available to them e.g. through the SRDP. Many farmers are hesitant to engage in new ventures, especially in the current financial climate.

The newsletter is sent out to approximately 220 farmers i.e. all those IACS registered within the boundary of the Breadalbane ESA. Some 8-10 farmers have received grant funding under BIFF (the Adding Value to Farm Woodlands grant scheme) and the Project Officer has helped a number of others apply for SRDP funds.

Environmental and other benefits achieved
BIFF appears to be having some success in encouraging better utilisation of farm woodlands with economic benefits for farmers and, in some cases, benefits for biodiversity and landscape as a result of improved management. The Adding Value to Farm Woodlands project has provided grant aid to a number of farmers to help business development. Neil Black from Gatehouse Farm near Aberfeldy initially sold firewood as a sideline to his cattle and sheep enterprise. He was given a grant for a firewood processor which reduced the amount of manual handling required and freed up time for deliveries and expansion of the business. Neil sources as much firewood locally as he can which gives a value to timber produced by local farmers and landowners. Bob Robertson, a hill sheep farmer from Rannoch applied for funding to buy a Woodmizer portable sawmill. This is a self-loading sawmill which can handle large and small logs with limited manual handling. Bob is using the mill to produce his own sawn timber for use on the farm and is also offering a contract milling service to the local community. The sawmill can be taken from farm to farm and milling done on site, cutting timber to required sizes. This has advantages over commercial saw mills which are often unable to meet specific needs and have higher costs. The
sawmill is helping other farmers to maximise woodlands on their farms and helping to keep timber products local, an objective of BIFF.

The project has also advised farmers and landowners on the potential to produce heat from wood rather than oil. The new SRDP provides grant aid of up to 50% of the costs (60% for young farmers) of installing woodfuel heating systems on farms under the option ‘Development of renewable energy provision’. When allied with grants for managing woodland e.g. by thinning, it is possible to produce both renewable energy and benefits to biodiversity and landscapes. BIFF also provides information on and has organised visits to woodland grazing and ancient woodland pasture sites highlighting that correct grazing regimes can encourage natural regeneration and benefit biodiversity.

Encouraging cooperative working is a specific objective and could include developing supply clusters for materials or clusters that co-own or share machinery, for example. There is some evidence that this type of activity is beginning to take place but it is very dependent on interest from farmers and land managers in the area, many of whom seem to prefer to operate as independent businesses.

There has been no formal evaluation of the benefits of BIFF. The longer term future of BIFF is uncertain. The current Project Officer’s contract ends in September 2009 and he anticipates there will be a review at this stage by the funders to determine whether the Initiative should continue. Without the Project Officer, it is possible that some activity would continue in the area, aided by the website (assuming it continues) and encouraged by active members of the farming community although this is by no means certain.

Key lessons from this approach

- having a clearly defined project area which is recognised by and meaningful to the farming and land owning community is helpful; in this case the Breadalbane ESA laid the foundations for BIFF
- the importance of having a Project Officer on the ground to encourage and facilitate activity and engage with the farming community and to provide a focal point for information and advice
- the availability of grant aid and other public funding streams appears to be necessary to bring under-utilised woodlands into better use and management but many farmers are uncertain of what funding is available to them
- farmers may be willing to cooperate but they are likely to put their own business interests first and are more likely to link up with others where they can see a business advantage in doing so
MAP 4.3: Breadalbane ESA

4.4 Case Study 4: Community Commons, Herefordshire, England

Introduction
Community Commons is a five year project (2004-2009) run by the Herefordshire Wildlife Trust (HWT) that seeks to improve Herefordshire’s commons for wildlife and local people. There are 201 commons in Herefordshire which support a significant proportion of the most important wildlife in the county; the Community Commons project is targeting 12 commons, a total of 1,000 hectares. These commons range in size from 13 ha to 440 ha and are located throughout the county, mainly on the western side (see Map 4.4). Common land has a complex history and legal arrangements governing its use but it is essentially land over which people have rights of common (such as grazing animals or cutting bracken for livestock bedding). Securing effective management of commons is a particular challenge and requires the cooperation or collaboration of multiple partners. In the late 1990s, the value of Herefordshire’s commons for wildlife began to be recognised, surrounded as they are by relatively intensive agriculture. However, the traditional management practices that contributed to the nature value of commons were breaking down; the commons were not being adequately grazed, fences were not maintained and scrub encroachment was a problem. With no strategic overview being taken of the management requirements of the commons, their nature value was declining. It was against this background that the Community Commons project came into being.

Objectives
The rationale for the project is that local people are key to ensuring long-term sustainable management of the commons. The overarching objective of the project is to improve the management of the commons for biodiversity as well as to provide recreational and educational opportunities for the local community. The project will help people to find out more about their commons, plan the action they want to take and implement practical action to improve the commons. Twelve commons were selected for inclusion in the project, based on a number of criteria including:

- biodiversity value – commons of high value were selected
- the level of management – commons facing a lack of management were selected
- the level of community support to take action – commons where interest was high were selected

The project has two phases. The first 18 month phase, now complete, was a planning phase, which included survey work, public consultation and working with local communities to produce management plans for the selected commons. The second phase, which began at the end of 2006, is taking forward implementation of the management plans.

The project is funding a wide range of activity including bracken and gorse management, tree management (e.g. pollarding of willows), footpath improvement, reinstating grazing, interpretation facilities and biological monitoring (e.g. wildflowers and butterflies). The project has also paid for machinery such as
chainsaws and a heavy duty scrub cutter which is available to land managers and has trained some individuals in the use of this machinery.

**Legal and administrative arrangements**

The project is a partnership between Herefordshire Wildlife Trust (lead partner), Herefordshire Council and Natural England. There is no formal constitution for the partnership although there is a Memorandum of Agreement from Natural England specifying their required outputs. A project steering group of the partners meets every few months to discuss progress and agree action.

**Funding**

The Heritage Lottery Fund is meeting the majority of the costs of the second phase of the project. This phase has a budget of £557,000. Additional funding is provided by the project partners. HWT is currently seeking additional funding for a 1 year extension to the project. Two of the twelve commons have entered 10 year Higher Level Stewardship agreements with the support of project staff and Natural England and a further two commons are negotiating agreements. This funding is helping to underpin the on-going management of the commons.

**Animation and facilitation**

HWT employs a Project Manager and 1 other full-time Project Officer to facilitate the project and take work forward. The on-the-ground presence of staff is seen as particularly important to the overall success of the project. Staff have supported commoners’ associations in their activities and, on a number of commons, been instrumental in working with the local community to establish associations and develop relevant constitutions.

**Advice and Information**

The Project Officers provide advice and information on the implementation of the management plans and work closely with Natural England where agri-environment scheme agreements are being entered into. The Farming and Wildlife Advisory Group (FWAG) has also helped with HLS agreements.

**Engagement with farmers/community engagement**

The project team has worked closely with farmers, graziers and the local community throughout the project. They invested heavily in community consultation and ‘knocking on doors’ in the initial planning phase to build support for the project and in order to understand the perspectives of different stakeholders. This was a resource intensive phase but seen as absolutely critical to getting the project up and running and ensuring its on-going success. There were some initial suspicions among the local community as to HWT’s intentions. Rumours spread that the Trust wanted to promote access to the commons by building hard paths and putting in litter bins etc. Overcoming initial misconceptions about the project, and building trust, was an essential part of a consultative process to build support among the local community. As well as public meetings, the project team visited people at home ‘on their own

---

6 Commoners’ Associations are voluntary and usually established to help oversee the management of commons. In England, the Commons Act 2006 provides for the establishment of statutory commons councils; Defra issued a consultation on this issue in September 2008. There is no requirement to establish such councils and voluntary associations may continue.
territory’ to discuss the project. Having secured agreement about the management plans, the implementation phase is proving relatively straightforward.

Wider community engagement is a central component of the project. The project is engaging not just those already directly using or managing the commons but also local people, to volunteer for scrub clearance and monitoring work, and local schools. Guided walks are also being offered. The project has detected some differences in perspectives about the commons between the local farming community and ‘newcomers’ to the area. The latter are often highly motivated and enthusiastic about managing the commons but do not always have the necessary knowledge to undertake such management. The Project Manager considers the project has been very successful in getting different groups of people to work together.

**Environmental and other benefits achieved**

Bringing under-managed commons into active management should yield significant benefits for biodiversity, which on-going monitoring should identify over time. It is hoped that the work will make a contribution to meeting Biodiversity Action Plan targets and to bringing SSSIs into favourable condition. The work being undertaken is also likely to improve public access to the commons bringing recreational and potentially health benefits and engagement with local schools should yield educational benefits. By encouraging different members of the local community to work together the project is likely to promote social cohesion. A further benefit is that some farmers who graze livestock on the commons and own surrounding land are becoming more interested in wildlife and reviewing the management of the other land they farm. The project may, ultimately, reach beyond its own boundaries and result in larger areas of land being brought into sympathetic management. Further work would be required to monitor such effects.

Although the project will come to an end in 2009, it is hoped that it will leave a longer-term legacy through on-going agri-environment agreements, the provision of machinery, volunteer activity and the establishment, in some cases, of commoners’ associations.

**Key lessons from this approach**

This project highlights:

- the value of active community engagement from the start to overcome any resistance and correct any misconceptions about the project and the importance of 1:1 engagement and ‘knocking on doors’ to build support for the project
- the importance of having clear objectives for the land being managed with actions set out in agreed management plans
- the role of different funding streams – HLF, project partners and agri-environment funding – to support the project and practical conservation management and buy necessary equipment
- the value of project officers on the ground to facilitate the project, keep up momentum and oversee activities.
Map 4.4: Location of Community Commons

Source: http://www.wildlifetrust.org.uk/hereford/community_commons.htm
4.5 Case Study 5: England Catchment Sensitive Farming Delivery Initiative (ECSFDI)

Introduction
The ECSFDI forms part of the Department for Environment, Food and Rural Affairs (Defra) Catchment Sensitive Farming (CSF) Programme which seeks to address diffuse water pollution from agriculture in order to meet the requirements of the Water Framework Directive (WFD). The ECSFDI will also contribute to meeting domestic and international environmental targets, particularly the Public Service Agreement (PSA) target to bring 95% of Sites of Special Scientific Interest into favourable or recovering (target) condition by 2010. The Initiative is a five year advice and incentives programme which aims to focus advice to those areas where diffuse pollution is a particular problem. The Initiative was rolled out in April 2006 in forty priority catchments in England and a further 10 catchments were added in autumn 2008 (see Map 4.5).

Objectives
The overall aim of the Initiative is to raise awareness about diffuse water pollution from agriculture and the impacts/requirements on the farming industry of the WFD and the 2010 PSA target for SSSIs and to encourage early voluntary action by farmers. The ESCFDI has two main delivery components: dedicated Catchment Sensitive Farming Officers (CSFOs) in each of the 50 catchments who facilitate group and one-to-one advice (delivered by specialist providers); a £5 million/yr Capital Grant Scheme (CGS) to fund finance the improvement or installation of infrastructure that will help to reduce diffuse water pollution. Activities vary from catchment to catchment depending on the specific water issues that need to be addressed. Technical support from the Pesticides Voluntary Initiative is also available where there are pesticide issues. From autumn 2008 a new strategic partnership programme is being established with national and regional partners outside priority catchments.

The ECSFDI hopes to reduce diffuse pollution by changing farmer behaviour and practices and promoting catchment sensitive farming. Farmers are encouraged to adopt best practice in relation to:

- The use of fertilisers, manure and pesticides
- Soil management to maximise infiltration of water and minimise run-off and erosion
- Protecting watercourses from faecal contamination (e.g. with fencing and livestock crossings) and from sedimentation and pesticides (e.g. with buffer strips)
- Reducing stocking density or grazing intensity
- Reverting arable land to grassland in sensitive areas

Legal and administrative arrangements
The Initiative is sponsored by Defra and delivered in partnership by Natural England and the Environment Agency. From summer 2008, 9 Regional Coordinators were appointed to enhance delivery and link the initiative with River Basin Management Planning for the WFD. There are 47 CSFOs assigned to the priority catchments. To
support CSFOs in the delivery of advice, a framework agreement has been established with specialist advice providers such as ADAS and Momenta. Catchment Steering Groups have been established comprised of local stakeholders including: water companies; farm advice deliverers such as FWAG; conservation bodies such as Rivers and Wildlife Trusts, RSPB, National Trust; farming organisations such as NFU, CLA and LEAF; and, farmers.

Funding
Defra provided funding for the ECSFDI of £12.9 million in 2008-09, of which £5 million was for capital grants. Due to the success of the CGS, a further one year of funding is being provided in 2009-2010. Additional funding to support appropriate land management is available through other budgets such as Environmental Stewardship.

Animation and facilitation
The CSFOs play a key role in facilitating and coordinating activity in the priority catchments, working closely with farmers, advice providers and other stakeholders. They:

- Engage with farmers through workshops, seminars, farm demonstrations, self-help groups and undertake 1:1 farm visits
- Co-ordinate Catchment Steering Group activity
- Undertake communications and publicity
- Sign-post agri-environment schemes and other incentives
- Assist farmers with CSF Capital Grant applications

Advice and Information
Advice is delivered through a combination of 1:1 farm visits and group events. 1:1 visits by advisors can cover a range of topics including: whole farm appraisal; soil, nutrient and manure management plans; farm infrastructure audits; advice on slurry handling and storage; soil, manure and slurry sampling and analysis. Providers follow standard templates for advice. Group events include: advisor/farmer workshops and seminars; farmer meetings; on-farm demonstrations e.g. trial plots for cultivations, use of cover crops; on-farm walks; and clinics (pre-booked and drop-in). Events usually include some in-field elements in order to demonstrate best practices to farmers and improve the transfer of advice and information.

Engagement with farmers/community engagement
The emphasis of the whole initiative is to build positive relationships with farmers and encourage voluntary action, aided by financial incentives, rather than having to resort to regulation. The Initiative seeks to ‘get farmer on board’ and understand the relevance of what needs to be done to their own businesses, with an emphasis on practical action. The approach is therefore one of ‘carrots not sticks’ although greater regulation remains a possibility if the voluntary approach fails. The availability of capital grant funding and practical advice that helps farmers to save money e.g. through more targeted fertiliser application, has proved attractive to many farmers.

Farmers are approached in a number of ways. The Defra Land Register is used to identify farmers in the priority catchment who are then invited to attend workshops
and group events. Contacts are also cold-called to see if they are interested in attending events or having a 1:1 visit. A number of appointments for 1:1 visits also come as a result of farmers attending workshops and events. Attendance at events has been variable with 2008 particularly affected by the poor summer weather. 1:1 visits are seen as the best means of engagement with farmers, allowing advice to be tailored to the particular circumstances of the farm. CSFOs also encourage local liaison groups with farmers and are identifying ‘champion farmers’ in catchments to promote catchment sensitive farming. Champion farmers can help to bring farmers together to collaborate. One example cited is of a farmer who brought a group together to discuss applying for capital grants for re-surfacing trackways, a particular problem in their area.

Environmental and other benefits achieved
A series of published case studies offer some insights into the kind of activities now being undertaken as a result of the Initiative. In the Tamar/Tavy Catchment, the CGS funded 29 miles of watercourse and buffer strip fencing, 118 alternative drinking points when access was denied to the watercourse, paid for yard improvements for clean and dirty water separation and the roofing of stock gathering areas. A hill farmer in Cumbria attended a workshop on the subject of ‘Protecting surface and ground waters from the use of sheep dip’ as a result of concerns about his present sheep dipping arrangements. This led to discussions with neighbouring farmers, including the Brant Fell Commons Association, to consider how they might work together to coordinate dipping, showering and injection treatments for their stock. In the Kennet and Lambourn Catchment, pollution from a pig farm was addressed by establishing buffer strips in a number of locations to reduce run-off and soil-erosion. These examples suggest that action is being taken that is likely to reduce diffuse water pollution from agriculture. Uptake of resource protection options available through Environmental Stewardship is also higher in the ECSFDI catchments than elsewhere.

The ECSFDI is subject to substantive monitoring and evaluation including monitoring farmer engagement, awareness and attitudes and changes in farmer behaviour and practice. Defra is also carrying out environmental monitoring and modelling. Responses in water quality will only emerge over time but models predict reductions in nutrients, sediments and pathogen losses as a result of the Initiative. At the catchment scale, predicted reductions are generally less than 10% but this rises to between 20-40% in some catchments.

The response of farmers to the Initiative and the extent to which it is changing attitudes, behaviours and practices appears, at this stage, to be less positive than it might have given the significant public financial investment being made. By 2008, 6,100 farmers had received advice representing 15% of all farm holdings in the priority catchments (23% by area). Advice was delivered through more than 500 group events and 4,700 1:1 farm visits. A 2008 survey of farmers in the 40 priority catchments found that awareness of the Initiative had increased from 2007 but some farmers did not recognise its name or understand who CSFOs were. This may be a result of contractors and other advisors being used by the Initiative. The researchers suggest

---

9 ECSDFI Farmer Impact Survey (February 2008) conducted by Test Research for ECSDFI
that the impact on attitudes has been disappointing with farmers only a little more likely to recognise the impact of agriculture, or their own activities, on diffuse pollution. Defra itself recognises that a key challenge for this, and any similar, Initiative is to engage and change the behaviour of the worst polluters; these farmers are least likely to actively seek out advice or take that which is on offer. The survey revealed that relatively few farmers had met their CSFO although most were willing to do so. Those that had received advice were largely positive about it. Financial constraints were cited by farmers as the main obstacle to not doing more. The researchers concluded that it may be that greater financial incentives are required or it may be a case that better communication is needed to make farmers more aware of what is already available to them. Given the relatively short time that the Initiative has been running, more significant changes in attitudes, behaviours and practices that result in environmental improvements may emerge over time.

**Key lessons from this approach**
The ECSFDI highlights a number of key issues:

- 1:1 farm visits appear to be better in terms of engaging with farmers compared to organised events which farmers may or may not attend, although in-field events are helpful as a means of demonstrating beneficial farming practices on the ground
- offering financial incentives – both capital grants and land management payments – is critical to achieving action on the ground supplemented by appropriate advice
- projects or initiatives need to build up momentum and be recognisable to the target audience; farmer awareness of initiatives takes time to develop and those running projects need to make considerable effort to communicate what is on offer
4.6 Case Study 6: Monitor Farms, Scotland

Introduction
The Monitor Farm programme began in New Zealand in 1991 and was adopted more recently in Scotland in 2003. The concept aims to help farmers better understand their business and take action to improve performance. The programme is led by the farming community themselves. A Monitor Farmer, representative of the local area and type of farming, is selected by a local Community Group which consists mainly of farmers but also vets, feed specialists, financiers and others. There is no financial incentive for farmers to participate; those who are interested in being the Monitor Farmer put their name forward and one is selected. The number of members can vary from 25-50; the average on Scottish farms is currently 33. The Monitor Farmer agrees to open up his/her business to the wider group, usually for a period of 3 years, hosting regular group meetings where subjects are discussed in a practical way. A Facilitator supports the Monitor Farmer providing advice on data collection, setting objectives and managing meetings. Together, the Monitor Farmer, Facilitator and Community Group agree improvements to put into practice on the Monitor Farm. The wider Community Group of farms is also encouraged to put these improvements into practice on their own farms. At the end of 2008 there were 11 Monitor Farms in Scotland and 5 farms had completed a 3 year programme.

Objectives
The overall objective of the programme is to help farmers improve business performance. How this is achieved is specific to each individual Monitor Farm and identified by the group but may be in relation to factors such as grassland management, feed and nutrition, disease control, calving patterns etc. Effort is mostly focused on increasing efficiency and/or output with the purpose of improving profitability margins.

Setting objectives for the Monitor Farms is largely a bottom-up process with objectives established by the Monitor Farmer, Facilitator and Community Group working together. Objectives tend to evolve in response to changing conditions on the farm and externally e.g. market factors, policy and regulation.

Legal and administrative arrangements
The process for setting up Monitor Farms appears to have evolved since they were first introduced in Scotland. Local meetings and advertisements in the media are used to develop the Community Group and farmers interested in becoming the Monitor Farmer asked to put their names forward. A number are then short-listed and interviewed and selections made following a visit to the farms. In the early stages, the funders played a leading role in selecting farmers but, over time, greater effort has been made to engage the Community Groups in selection. The programme is increasingly recognising the need to establish farmer led governance groups or committees of a few members with a farmer chairman to help agree objectives, make decisions and work with the Monitor Farmer and Facilitator to make progress. The chairman is seen as particularly important, from the funders perspective, in providing some direction and helping to clarify the focus and objectives.
The need to have a set-up period, gathering information and data about the Monitor Farm and to develop ideas for a programme of events, before holding a full group meeting is increasingly recognised by the funders and others. The time required to set up Monitor Farms can be substantive with estimates varying e.g. from 3-6 months.

**Funding**

Quality Meat Scotland funds 9 of the current 11 Monitor Farms with further funding provided from the Scottish Government, Scottish Enterprise Borders, Highland Council, Dairy Co (formerly MDC), Home Grown Cereals Authority (HGCA), Cairngorms National Park Authority and the Scottish Organic Producers Association (SOPA).

**Animation and facilitation**

The Scottish Agricultural College (SAC) facilitate 8 of the current 11 Monitor Farms. In some cases, HGCA and Dairy Co provide facilitation or other support as an in-kind contribution.

It is the Facilitator’s role to support the Monitor Farmer and help set objectives, organise Community Group meetings, identify and invite experts to meetings and stimulate debate and discussion. A recent evaluation of Monitor Farms in Scotland by ADAS (2008) highlights the importance of the Facilitator to their success and notes that, ‘A good Facilitator is key to the whole process... Facilitating programmes like this is a demanding task with a need to balance local expressed needs, national priorities and drivers, as well as the inherent trials of managing diverse personalities and interests.’ ADAS suggest that given Facilitators are ‘in the business of changing attitudes’ they should have:

- Knowledge of agricultural issues
- A proactive ability to get farmers to share information
- Knowledge of group dynamics and a range of techniques for engaging farmers in exploring new ideas
- Ability to develop a working rapport with the Monitor Farmer and management group encouraging their ownership of the process, be willing to respond positively to their interests yet be able to balance these with the objectives of funders and programme managers
- Project management skills and clarity of focus in regard to the setting and monitoring or projects objectives
- Access to a wide range of expert contacts from a variety of sources

The Facilitators used to date are generally viewed as doing a good job although some could more proactively engage more Community Group members in debate and be stronger in challenging preconceptions.

**Advice and Information**

Advice and information is provided to the Monitor Farmer and the Community Group by the Facilitator and through the use of external experts invited in to meetings. Some Facilitators invite experts to every meeting to consider different topics while others prefer to use them on a more ad hoc basis making greater use of the farmers themselves to identify potential improvements.
Monitor Farms are promoted to the wider farming community, mainly through press and the internet with farm reports readily available. Open day events are also held on Monitor Farms.

**Engagement with farmers**

There are currently 11 Monitor Farms in operation in Scotland, each attracting a Community Group of, on average, 33 participants. The number of farmers directly benefiting from the programme is therefore relatively low. However, through promotional and information material, the programme has a wider reach. ADAS (2008) found that there is good recognition of the programme among the wider farming community and awareness is generally high. Of those surveyed, a substantial number had actually made changes to their farming business as a result of knowledge gained from the Monitor Farm and 15% identified an increase in profit or financial performance. ADAS add a note of caution to these findings however, suggesting that general changes in the industry may have an influence on farmers’ perceptions. Many farmers have attended events at Monitor Farms. For those that have not, time and distance appeared to be key factors preventing them going while others preferred to receive information in the form of literature.

The selection of the Monitor Farmer appears to be a critical factor to the success of the groups. ADAS highlight that the Monitor Farmer must be someone who is respected by other farmers and the farm must be representative of farming activities in the locality. Farms selected are usually higher than average performing farms. There appears to be some differing views as to whether more progress might be made by selecting less well performing farms, or those closer to the average, in order to demonstrate how greater improvements can be made.

**Environmental and other benefits achieved**

Monitor Farms are primarily established to help improve farm business performance and hence the main benefits can be anticipated to be financial. ADAS (2008) calculated the financial impact from data collected from a number of Monitor Farms and from a sample of Community Group members. They estimated benefits of £6.5 for every £1 of programme spend with benefits likely to be significantly greater if they had been able to fully estimate all the changes Community Group members told them of. The average improvement in Net Farm Income (including one negative value) based on four sample farms produced an annual improvement of £6,729 per Monitor Farm for each year in the programme. However, ADAS also found that lack of a robust baseline made it impossible to establish rigorous trend date.

In addition to improved efficiency and financial margins, ADAS found that some of the Monitor Farmers interviewed identified behavioural and attitudinal changes, including paying more attention to detail and improved understanding of the strengths and weaknesses of their business. But they also found little evidence of objective setting and monitoring of performance on Community Group farms despite efforts by Facilitators to encourage this.

Overall, ADAS suggest that:
the bottom up approach and the involvement of the Community Group members in decision making is viewed as a very positive aspect of the programme fostering ownership and commitment.'

They found evidence of increased networking among farmers with the Monitor and Community Group farmers having formed close relationships and more likely to share advice and knowledge in future. They also found some examples of cooperative activity taking place as a result of the Monitor Farm programme.

The desirability or practicality of using Monitor Farms for other knowledge transfer purposes e.g. on environmental issues was considered by ADAS, recognising interest by some funders for the approach to have a wider focus. They found varying views among Monitor Farmers, Facilitators and Community Group member on this issue and concluded that:

‘If the group members do not see the need, benefit or purpose of learning about a wider agenda, trying to impose this on the process could prove unhelpful and potentially undermine the business improvement benefits it has so clearly shown. However, there are indications that if approached with sensitivity and in a way that integrates the wider agenda with the farmers’ clear focus on financial and physical improvements, there may be potential for some other dimensions to be included particularly where associated with environmental management. This is already happening on some current Monitor Farms in areas with environmental designation. Here the facilitators use publicly funded financial incentives and regulation as motivators. To achieve this more widely, the individuals appointed for facilitation would also need to be convinced or persuaded of the merits of including other issues, as there are clearly strong beliefs and values in the wider community about the vision for farming.’

ADAS found no support for using the process to support farm diversification due to this being so dependent on location and personal objectives and beliefs.

Key lessons from this approach
ADAS (2008) identify some factors key to the success of Monitor Farms as:

- The on farm practical approach
- The involvement of specialists
- Networking with trade, professionals and other farmers and the opportunity to share ideas and problems in a social setting
- The ability for group members to take part in decision making and ownership of the group
- The role of the Facilitator drawing conclusions from each meeting leaving clear messages for members to take home

They did however identify some concerns in relation to an overly technical focus, some lack of evidence of the overall financial impacts and the potential for competition with other initiatives.
4.7 Case Study 7: Malpai Borderlands Group (MBG), USA

Introduction
The MBG is a landowner-led non-profit organisation working to achieve ecosystem management on almost 405,000 ha of virtually unfragmented land in southeastern Arizona and southwestern New Mexico (see Map 4.7). Apart from two small wildlife reserves in the area, the land is used almost entirely for cattle ranching. Some 53% of the land is privately owned and the remainder is made up of state trust land or public land managed by the U.S. Forest Service or Bureau of Land Management. The Malpai Borderlands area includes a diverse range of geological features and habitats including mountains, canyons, valleys and riparian corridors. Elevations range from just over 1,000 to 2600 metres. A number of rare, threatened and endangered species are found there including the jaguar, lesser long nosed bat, the Chiricahua Leopard frog and the ridge-nosed rattlesnake. The area is home to fewer than 100 families, many of whom have lived on and worked the land for generations. A number of ranchers came together to form the MBG as a result of concerns about the diminishing quality of grasslands for grazing and due to increasing pressure for sub-division of ranches and from development.

Objectives and activities
The goal of the MBG is:

‘To restore and maintain the natural processes that create and protect a healthy, unfragmented landscape to support a diverse, flourishing community of human, plant and animal life in (the) borderlands region.’

and to do this by:

‘…working to encourage profitable ranching and other traditional livelihoods, which will sustain the open space nature of (the) land for generations to come.’

The MBG is active in a number of areas including:

Land protection: conservation easements are used to buy out certain property rights, mainly to prevent sub-division of ranches and development, in order to protect it as natural wildlife habitat. To date, 30,352 ha of private land on 12 ranches have been protected in this way. These easements also affect a further 81,748 ha of state and federal land.

Innovative cooperative land management: the MBG developed the concept of ‘grassbanking’ which allows ranchers experiencing serious drought to rest their land
from grazing by moving cattle to the Gray Ranch (privately owned by the Animas Foundation and available for use by ranches involved with the MBG) in return for conservation easements. Drought is a significant problem in the region and grassbanking has enabled ranches to remain viable when faced with a shortage of grazing.

**Habitat restoration:** including a range of projects to restore native grassland and savanna habitat and to use fire as a natural landscape process to prevent woody species spreading across the grassland. MBG cooperates with federal and state agencies and private partners to conduct prescribed burns on land and have used fire as a management tool over almost 28,000 ha to improve the ecological condition. One of the burns carried out was the largest prescribed burn in US history.

**Community outreach:** MBG hosts meetings and seeks to share information on new science and land management practices with neighbours and other collaborators.

**Legal and administrative arrangements**
The MBG was formally established as a non-profit organisation in 1994. It is able to accept tax-deductible contributions and has the power to hold conservation easements. The organisation is managed by a Board of Directors who include local ranchers, scientists and other stakeholders. The Board meets four times per year. There is also a Science Advisory Committee, which includes renowned experts in their fields, who help to review projects and give credibility to the work being undertaken. The organisation does not have members. The MBG employs a Director (who is also a rancher in the area) and part-time staff. 1 post is currently shared with the Nature Conservancy. The MBG also hires people on a contract basis for projects as required. Volunteers also assist the work but their input is variable.

**Funding**
The MBG was established using funding from the Fish and Wildlife Foundation (a quasi-Government body) which had to be matched by MBG. This funding was raised by approaching individuals, companies and other foundations and the MBG continues to raise funding in this way. Securing on-going funding is a key issue for the organisation as Foundations tend to get engaged for a time and then move on to other initiatives and projects. The MBG has established a technical and cost-share assistance programme to help run conservation projects and support certain land management practices. Cost-share programmes help to pay for capital work such as fencing; costs are shared between state agencies, the MBG and the rancher with the latter able to count labour as a financial contribution.

**Animation and facilitation**
The MBG plays a strong co-ordination role and has been instrumental in bringing together public agencies, with responsibilities in the region, to work together. Prior to the MBG there appeared to be little co-ordination between federal and state agencies and the MBG was welcomed as a mechanism to take forward co-ordinated activity. The MBG facilitates an annual meeting with relevant agencies and has regular on-going contact with key individuals. It also maintains regular contact with ranchers in the area, encourages them to get engaged with projects and facilitates conservation easement transactions.
Advice and Information
The MBG offers technical assistance (advice) to ranchers on conservation management working through a Natural Resource Conservation Service Advisor. Meetings are also held to share information on different topics.

Engagement with farmers/community engagement
The Malpai Borderland area is mainly comprised of large cattle ranches and the majority are engaged with MBG and its activities. It is on these ranches that conservation easements have mainly been used. A few ranchers are not involved and it is thought that this is partly due to a lack of trust of public agencies such as the Nature Conservancy or simply because those ranchers have a strong independent streak. Some of the smaller landowners are not engaged and easements are used less commonly on such landholdings, however a number of smaller ranches are involved with MBG in other projects and activities. There is a growing trend of people buying land, as ranches are sub-divided, for ‘lifestyle’ reasons. These people tend to be enthusiastic about the work of MBG and wish to preserve the landscape attributes that attracted them to the area in the first place. However, such people often lack knowledge about land management and need to employ labour to undertake operations. There is a shortage of experienced labour and good cowboys are increasingly difficult to find. Many ranchers also face the issue of a lack of a successor and there is some uncertainty about the long term sustainability of cattle ranching in the Malpai Borderlands area. Whilst there is a commitment by many individuals in the region to maintain the open-landscape and its wildlife value and resist the pressure from development, doing so remains an on-going challenge.

Environmental and other benefits achieved
The MBG has had some success in improving habitat for endangered species whilst ensuring the viability of ranching operations. For example, on one ranch the MBG approached the Arizona Game and Fish Department to provide funding to drill a new well and build a water system that fed a pond for the Chiricahua Leopard frog and a drinker for the cows. Conservation work in the area as a whole is guided by a Habitat Conservation Plan. A landscape-scale comparison study has been established to determine how fire, livestock grazing and natural herbivores interact and impact on grassland habitats. A watershed restoration programme operated by the MBG has led to the construction of 3,000 hand-built water harvesting structures within gullies to slow down run-off, capture sediment, establish vegetation and thus control erosion. So far, almost 15 miles of watercourses have been treated using native materials and work is on-going.

Conservation easements have been used widely to protect land from sub-division and development. Development pressure in the area is strong and whilst the MBG Director considers the easements will hold up legally over time, they can be subject to legal challenge. The support of the local community for the objectives of the MBG is seen as critical in these circumstances.

The MBG Director considers that their work has had a significant influence on the way ranchers, the environmental community, the government and the public perceive conservation and ranching. The partnership forged with government agencies over the years is seen as a key outcome of the organisation. The MBG has helped to shift the focus from confrontation, regulation and litigation towards finding common ground.
and working together, using the best available science, at the grassroots level. It has had a significant impact in promoting a sense of land stewardship among ranchers and the local community.

Key lessons from this approach

- Organisations such as the MBG, operating in a defined area, can - in the absence of other mechanisms - play an important co-ordinating role, bringing private landowners and government agencies into sustainable and effective partnerships to achieve joint conservation and ranching objectives.
- Being ‘in it for the long haul’ reaps benefits in terms of building partnerships and achieving conservation objectives but securing on-going operational funding (both for administration and projects) is a challenge and will determine the long-term sustainability of this approach.
- Conservation easements appear to be used to good effect to buy-out certain property rights and prevent key threats to the landscape.
- Innovative approaches to particular problems e.g. grassbanking in drought situations, can be used to good effect.
Map 4.7: Malpai Borderlands area

Source: http://www.malpaiborderlandsgroup.org/frontmap.html
4.8 Case Study 8: Landcare, Australia

Introduction
Landcare is a national network of local community groups working to protect natural resources and the environment. There are currently more than 4,000 Landcare community groups across Australia working on issues such as the sustainable management of farmland, improving river systems and waterways, coastal management, tree planting and restoring wildlife habitats. Landcare groups are also active in urban areas, tackling local environmental problems. Groups are formed by people with a common concern about the quality of natural resources in their area and activities include on the ground work, research, education and awareness raising. Groups also provide a valuable social network. The first Landcare group was formed in 1986 in Western Victoria and has since grown into a national network supported by Landcare Australia Ltd, a national body that builds partnerships between Landcare and the corporate sector and raises awareness, and the Australian Landcare Council, a group of representative stakeholders. The Landcare movement receives public support at federal, state, regional and local level and also some private financing from corporate partners. Group members are a major source of funding for activities on the ground.

Objectives
Landcare groups work to protect natural resources and the environment. They are voluntary groups made up of members of the local community. The emphasis is on bottom-up community action to resolve environmental problems and groups have, historically, set their own objectives and decided what action to take. Over time, as more groups have become established and coordinating bodies put in place, there has been a substantive push to work in more strategic ways to achieve regional and national goals e.g. catchment management. In 1989, the Australian Soil Conservation Ministers declared the years 1990 to 2000 to be the ‘Decade of Landcare’. This was in response to a joint proposal of the National Farmers’ Federation and the Australian Conservation Foundation to the Commonwealth Government for action on land degradation in Australia. The Commonwealth and all States and Territories developed Decade of Landcare Plans which aimed to reverse and prevent land degradation and achieve sustainable land use and management. The Decade of Landcare Plan for New South Wales (NSW) established 5 overarching goals and fifteen objectives for Landcare. A formal evaluation of the Plan was undertaken in 2000\(^{11}\) and presented the achievements reached over the preceding decade.

Landcare farming is one component of the overall activity of Landcare groups. It is an approach that promotes sustainable agriculture and aims for farming to be economically viable whilst maintaining or enhancing the natural resource base. Landcare farming recognises the decline in natural resources and particular pressures of salinity, soil acidity, pollution of waterways by nutrients and loss of native vegetation and the high costs of these to both the agricultural industry and communities. Landcare farming groups across Australia are working to combat these problems whilst improving farm profitability.

---

\(^{11}\) NSW Department of Land and Water Conservation (2001) NSW Decade of Landcare Evaluation.
Legal and administrative arrangements
Landcare groups are independent of, and not regulated by, Government. In NSW, groups have been encouraged to preserve their independence by establishing themselves, in law, as non-profit making organisations. However, whilst remaining independent, groups work closely with Government and other organisations in order to access information, technical advice, funds and to ensure effective networking and co-ordination between groups. Most groups operate on private land or land under leasehold, on areas ranging from a few hectares to thousands of hectares across multiple properties. Many groups work on public areas such as roadsides. A smaller proportion of groups, coastal groups in particular, operate on Crown Land. There are also groups operating on land under the management of the National Parks and Wildlife Service, and other government agencies, as well as land administered by Local Government.

Figure 4.8 shows the overall structure of Landcare in Australia and the relationship between Landcare groups and different arms of Government and relevant organisations.

Landcare groups are made up of people from a common local area who are concerned about local natural resource management issues. Groups plan and carry out activities to tackle these issues. They vary in size from less than 10 to 200 or more members, but the most common size is 15 to 20 members. Usually a farm or property family has one membership. The age and background of members is highly variable across Groups. In many areas Landcare groups have come together to form networks of groups. There are currently approximately 100 networks in NSW. In other places, where there has been one large group covering a wide area, there has been a move to develop sub-groups, for example in the Kyeamba and Macquarie Valleys.

Funding
Landcare group members provide the majority of funds for activities. Landcare Australia has estimated that for every dollar of external money they receive, groups contribute six dollars in members' labour, time, cash and materials. Landcare groups can also access financial support for their activities from a number of sources, including Government agencies and corporations. In NSW, groups can receive support from the Department of Land and Water Conservation to help set up groups whilst Commonwealth and State programme funds are often used for on-ground works, demonstrations, and awareness raising projects, or to employ a Landcare coordinator to provide support to groups and networks. Landcare groups receive cash and in-kind support for their activities from the corporate sector, as part of sponsorship agreements.

Animation and facilitation
A network of Government funded local coordinators and Regional Landcare Facilitators help groups to operate. In 2001, there were 11 regional Landcare facilitators located throughout NSW employed through Natural Heritage Trust projects managed by each region. The facilitators encourage the formation and effective operation of Landcare networks or groups of groups and link Landcare to National, State and regional/catchment plans and strategies, such as the NSW Salinity Strategy and the catchment blueprints of the catchment management boards. Regional Landcare facilitators and Landcare coordinators help groups and networks to target
their projects to the actions and investment priorities in these plans and strategies and thereby to think and act both locally and regionally. Facilitators also provide support, guidance and training to the Landcare coordinators in their region.

Advice and Information
As well as facilitators and coordinators providing support and guidance, Landcare Australia provides practical information and advice on running groups, funding sources and on land management activities that can be undertaken by groups. Landcare Australia Ltd offers a range of information and resources for farmers on issues such as: property management planning; best management practices; minimum tillage; weed control; pasture and vegetation management; erosion control; and combating salinity.

Engagement with farmers/community engagement
According to Landcare Australia, some 40% of farmers are now members of Landcare groups and a further 35% of farmers are influenced by Landcare activities. Landcare group members in the first Decade of Landcare tended to be environmentally oriented farmers, and the groups reinforced and legitimised environmental values. However, as more farmers have joined Landcare, the scope of the groups has widened and they have become more attractive to production-oriented farmers.

A 1993 survey in north east Victoria (Curtis and De Lacy, 1994 cited in Cullen et al 2003) found that compared with farmers who were not Landcare group members, Landcare group members were: significantly younger and better educated; significantly more involved as members of other voluntary community groups; and worked significantly fewer hours off-farm. Later surveys by ABARE in 1995-96 (Mues et al, 1998 cited in Cullen et al 2003) found that compared to non-Landcare group farmers, Landcare group members:

- operated larger farms with less intensive cropping and more livestock;
- recorded higher levels of farm income, farm debt and farm business capital;
- had a higher rate of return to farm business capital;
- were more likely to have a farm plan;
- more frequently participated in training activities;
- used a wider range of farm management information sources; and
- adopted a larger proportion of ‘best farm management’ practices.

In 2000, ABARE (Alexander et al 2000 cited in Cullen et al 2003) confirmed the conclusion of the earlier studies that adoption of Landcare farming practices is much higher if the landholder is a Landcare group member. Farmers who are Landcare group members are on average 50 percent more likely to adopt a sustainable agricultural practice than other farmers. Compared with farmers who were not Landcare group members, landcare group members were:

- 88 percent more likely to exclude stock from agricultural areas affected by land degradation;
- 77 percent more likely to undertake formal monitoring of pasture/vegetation conditions;
Environmental and other benefits achieved
Cullen et al (2003) suggest that Landcare has been highly successful in mobilising voluntary effort at low public cost and argue that:

‘...landcare, of which landcare farming is a part, is one of the most important mechanisms for delivering the natural resource outcomes sought by the broader Australian community. It is imperative that landcare continues to be nurtured and supported.’

Discussing the future of farming in Australia, Cullen et al (2003) suggest that Landcare generates benefits at industry, regional and farm level. These are summarised as follows:

- At the industry-wide scale, landcare farming systems can provide industries with: a degree of control over natural resource management issues; better market access for products produced in an ‘environmentally responsible’ manner; and reductions in on-farm costs
- At the regional scale, landcare farming systems can: contribute to setting and achieving catchment targets for soil health, water quality and quantity, riverine ecosystem health, and terrestrial biodiversity; and contribute to maintaining the viability of local and regional economies.
- At the farm scale, landcare farming can: improve profitability; maintain and enhance the productive capacity of the farm’s soil, vegetation and water resources; improve the capacity of the farm to accommodate variations in climate, markets and interest rates; and improve the health and wellbeing of farm families.

A number of examples of land management activity through Landcare are cited by Cullen et al (2003) and Landcare Australia:
The **Woady Yaloak catchment** covers 120,000 ha and is home to 150 full time and 70 part time farmers; some eighty percent of the land in the catchment is privately owned. During the 1980s landowners recognised undermining the productive capacity of the area. Salinity, erosion, vermin and weeds were impacting on agricultural pursuits and reducing farm profitability. In response to these increasing threats, landcare groups began to form. By 1991 there were four landcare groups in the catchment conducting activities to tackle their various land and water degradation issues. Landholder participation in landcare activities increased from less than 20 percent in 1992 to 68 percent in 1996. In its first five years to 1996, the catchment program also saw a sustained increase in the amount of pasture sowing, tree planting and vermin control each year. More than 4,000 h of pastures were sown, 135 ha of trees established, 200,000 rabbits killed and 40 ha of erosion stabilised. By 2000, the number of Landcare groups had grown to 7 and further work had been undertaken to plant trees, sow pasture and stabilise erosion.

In a 24 month period, the **Tarcutta Creek Rivercare Plan** project involved more than 100 landholders (40% of the farming community), protected 107km of stream and flow lines, planted 87,000 trees and shrubs and put in more than 126km of fencing. Tarcutta Creek is a 170,000 hectare catchment on the south west slopes of NSW which has been highly modified since European settlement. The catchment is typified by incised channels, eroding banks, declining water quality, degraded river vegetation communities and dramatically changing hydrology. The creek is also a major source of sediments and nutrients in the Murrumbidgee and Murray River systems. The project undertaken by the Tarcutta Creek Catchment Committee to improve their waterway was unique in the way it struck a balance between the community’s desire to target environmental hotspots and research findings on protecting the best sections of the creek. The Tarcutta Creek Catchment Committee implemented the Tarcutta Creek Rivercare Plan to reduce sediment loads and nutrients through stabilising creek banks and lateral gullies as well as improving riparian vegetation. One of the major successes of this project was the innovative means with which it attracted the participation of the majority of landholders with creek frontage, including landholders not previously involved with Landcare.

Cullen et al (2003) identify a number of other characteristics and benefits of the Landcare approach. They suggest that opportunities for shared learning and peer support have been critical in the development of Landcare farming practices and the high adoption rates by group members. They note however that not all farmers are motivated to adopt such practices and suggest the need for enhanced funding for research and demonstration activities to identify and promote the potential benefits of Landcare farming practices. They also suggest that Landcare has huge potential to bring about landscape scale change and has built up a large skills base and reserves of social capital as well as partnerships with catchment management organisations and State agencies.

Landcare has now spread from Australian farmers to farmers in several overseas countries. For example, in 1999 there were over 200 landcare groups in New Zealand under the New Zealand Landcare Trust and the concept has been introduced to the Philippines, Canada, Iceland and South Africa. The United States has also considered the formation of Landcare groups in funding processes for catchment management.
Key lessons from this approach

- ‘grass roots’ community enthusiasm and action can be harnessed to help achieve regional and national environmental objectives; regional facilitators and local coordinators play a key role in supporting groups and making links with ‘the bigger picture’
- different sources of funding – public and private – can be brought together in support of a partnership approach to achieve environmental and other outcomes
- community led approaches build social capital and skills and make it more likely that environmental action will continue in future
- ‘grass roots’ community groups benefit from external support (both financial and administrative)
- providing opportunities for shared learning and peer support can be beneficial in securing wider scale adoption of environmentally beneficial farming practices
Figure 4.8: Structure of Landcare, Australia

Community landcare (on-ground works and community development)

Individual participants in Landcare groups:
- Landowners, farmers, community volunteers, concerned individuals, school and other students

Landcare groups:
- Independent community-based groups that plan and undertake landcare projects (4,000+ groups)

Landcare 'networks':
- Act as an umbrella group to all the community groups within a certain area or with a common interest

State and regional planning, management, leadership and funding

Regional NRM organisations or catchment management authorities (including Community Landcare Coordinators)
- Responsible for whole catchment planning, funding allocation and community development (eg in Australia, eg 13 in NSW)

State government departments and agencies (including State Landcare Coordinators)
- Provision of technical advice, funding and support for landcare

State peak landcare associations and other advisory and support groups
- Advice and communications between landcare and government

National landcare support and structures

National Landcare Program supporting organisations
- Australian Landcare Council
  - Appointed by the Minister for Agriculture, Fisheries & Forestry to advise the Minister on Natural Resource Management issues
- National Landcare Facilitator
  - Contracted to the Australian Government. A national advocate for the landcare movement with a focus on sustainable agriculture to Ministers, government and primary industry organisations.
- Landcare Australia Limited
  - Not-for-profit company funded under contract to the Australian Government to raise corporate support for landcare and to create awareness of landcare

National funding
- Corporate Partners
  - Provision of funding, in-kind resources, volunteers and managing of landcare
- Other federal and state funding
- National Landcare Program
- Natural Heritage Trust, including Environment Fund
- National Action Plan for Salinity and Water Quality
- Close upAustralian Conservation Volunteers Australia
  - Greens Army

Australian Government departments and agencies
- Provision of support for landcare including policy, strategy, technical advice, funding and datasets
- Includes:
  - Department of Agriculture, Fisheries and Forestry and Department of Environment and Heritage

4.9 Case Study 9: Environmental Cooperatives, The Netherlands

Introduction
The first environmental cooperatives (VEL and VANLA) formed in 1992 and by 1995 there were an estimated 60 groups with a total membership of almost 4,000. These farmer associations or cooperatives grew out of a desire to integrate environmental protection into agricultural production in response to perceived threats of Government legislation and fear of compulsory land purchase for nature conservation. Improving the financial position of members was also a desired outcome. By 2004, it was estimated that there were 124 such cooperatives fairly evenly distributed throughout the country and covering an estimated 55% of the agricultural land area. However, only approximately 9,160 farmers (10% of the total number) are members suggesting that farmers with large farms are more likely to become members. Dairy farmers appear to be the most common participants with membership much lower among arable farmers.

Objectives
A 2002 survey identified the most important reasons for starting an environmental cooperative. These include the desire to contribute to the conservation of wildlife and generate an income from wildlife and landscape management to assist in the continuity of the farm business. Reasons also include social aspects such as members desire to see the development of their society and to join a group with a similar specific interest to their own. Cooperatives are also seen to consult with government on behalf of members.

In 2004, five main environmental themes for activities were identified:

- Management of field edges (79%)
- Species management (81%)
- Maintenance of landscape elements (63%)
- Plot management (79%)
- Construction of landscape elements (61%)

Approximately 25% of cooperatives also support rural development activity e.g. developing regional and recreational products. They are also active in other areas such as local and farm orientated research, mineral administration systems, water maintenance and developing tourism.

Legal and administrative arrangements
Cooperatives are constituted in a number of different ways. In 2002, some were found to be formal associations (societies), others were foundations and a few were legal cooperatives. Six had no legal status. These differ as follows:

---

Legal cooperatives can make profits and share any surpluses with members but societies and foundations cannot.

Societies have members. The articles of a society set out the name, goals, members' liabilities and means of enforcing obligations and liabilities. These are presented to a Notary and, if accepted, the grouping is entered into official records.

Foundations do not have members. A memorandum sets out the name, goals, the way the Board is nominated and the municipality where it is located. Foundations can control assets and are useful where a cooperative might want to purchase an asset e.g. land.

Management structures vary but there is generally a Board, largely staffed by volunteers, which is central to the operation of the cooperative. The Board initiates new activities and communicates between cooperatives, a key source of new ideas and activities. Boards meet on a regular basis and hold structured formal meetings including at least one annual full meeting of all members. External organisations are often employed to help with specific projects or activities and consultants sometimes employed to help establish programmes of activities. Some cooperatives employ paid staff; staff become more essential as the work-load and scale of activity grows.

Regional cooperative groups facilitate the communication between individual cooperatives and there is now a national umbrella organisation – Natuurlijk Platteland Netherland which supports cooperatives and represents them on influential policy committees.

Funding

Farmers receive compensation for activities from a number of different sources including: Programma Beheer, province, municipalities and district water boards (Waterschappen). Programma Beheer (Programme Management) consists of three main agri-environment schemes: Subsidy Nature (SN); Subsidy Agricultural Nature (SAN) and Subsidy Organisation support (ROS). SN provides payments for the management of nature reserves; initially such payments were only made to professional conservation organisation but are now available to private landowners.

SAN offers agri-environment payments to farmers in designated areas for activities including meadow bird grassland management and the creation of margins on arable land. SAN provides the opportunity for farmers to enter collective agreements e.g. to co-ordinate the mowing of grassland between neighbouring farmers. The environmental cooperatives apply for collective contracts and coordinate members activities. In the early stages of operation, the cooperative also received the payments and distributed these to members but in 2003 the European Commission ruled against this activity. In response the Dutch Government and farmer cooperatives developed a new model whereby new contracts are only available to cooperative members. The Government signs a contract with the cooperative which then signs individual contracts with participating members. Payments are made directly to farmers but farmers return a fixed percentage to the cooperative, according to the terms of their contracts, to help fund coordinating activities. In 2000, an element of payments by results was introduced which rewarded farmers for the number of nests found on their fields with payments varying according to the bird species found there. Again, such
payments were disallowed by the European Commission for not complying with the rules regarding agri-environment payment calculations.

Under ROS, payments are made available to cooperatives based on the number of hectares members enrol in schemes. A condition of this support is that part of the money is used to support training and development work to assist the successful establishment of the cooperative. Payments are only available for up to four years with higher rates available in the early years to assist with start-up costs. Some initial pump-priming appears to be critical to help cooperatives get established.

Farmers pay a fee to be a member of a cooperative; the average fee is about €40/year. Approximately 40% of cooperative activities are funded by membership fees and through the deductions made from assisting with collective contracts. Other sources of funding come from local and central government and from activities and some cooperatives receive corporate sponsorship or funding from research organisations.

**Animation and Facilitation**
Cooperatives need founder members to start them off. Energetic and enthusiastic individuals appear to be key to establishing a collective of farmers. Younger farmers in particular appear to play an active role. Founder members were also likely to have been active in farming organisations prior to their involvement and many were also active in voluntary/community activities. Once established, the Chair of the Board appears to be an influential figure in building and maintaining the success of cooperatives, supported by the Board itself.

**Advice and information**
Environmental cooperatives support and advise members on how to apply for schemes e.g. agri-environment measures and contracts e.g. with the Water Boards. In 2004, 85% of cooperatives had negotiated agreements or contracts for their members. In some cases, cooperatives may complete application forms for members. Many cooperatives also organise courses for members on agricultural nature management.

**Community engagement**
Some cooperatives allow non-farmers to be members although few appear to actively promote non-farmer membership. Of those that do, the benefits of allowing non-farmer members include:

- Practical assistance with conservation activities e.g. pollarding willow trees
- Bringing specific expertise e.g. in IT or finance onto Boards
- Opportunities for learning and sharing new ideas and understanding different perspectives
- Increased credibility with local and government representatives

However, there appears to be some wariness of including non-farmers even in those cooperatives that do include them. Many farmers wish to retain control of cooperative activities and feel that non-farmers do not always share the same goals which can lead to conflict.
Environmental and other benefits achieved

Although the environmental and other impacts of environmental cooperatives have not been fully evaluated, research to date suggests a number of positive effects. Environmental cooperatives appear to have increased participation rates in environmental schemes overall, thereby increasing the total area managed for nature and facilitated joint submissions which bring larger, contiguous areas into management. Water management – a key issue in the Netherlands – has been a focus of activity for a number of cooperatives. The Meander cooperative has enabled members to consider alternative water management plans for the Meander river and their likely impacts while the De Lingestreek cooperative has become engaged in flood plain management issues. Cooperatives also appear to have strengthened local communities, led to spin-off enterprises and been an avenue for rural development. Research suggests that cooperatives may also reduce government transaction costs for agri-environment schemes by facilitating collective, rather than individual, agreements, and through giving advice and developing management guidelines which improves the quality of submitted applications and subsequent implementation, respectively.

Key lessons from this approach

- Energetic and enthusiastic individuals, active in the farming community, are instrumental in initiating cooperative activity and, in the early stages at least, cooperatives rely heavily on volunteers
- Funding, both to establish cooperatives and to fund environmental activities, has been critical to the success of cooperatives
- Cooperative activity appears to have increased participation rates in environmental schemes
- Cooperatives build social capital and appear to have had spin-off benefits e.g. establishment of new business ventures
- The Government has been willing to work with, and provide active support for, farmer cooperatives in order to facilitate environmental action
- EU rules for agri-environment payments appear to have worked against the operation of farmers’ cooperatives although the Dutch Government and the cooperatives have found ways to overcome these difficulties.
5. Analysis of case studies and lessons learned

5.1 Introduction
A total of nine case studies focusing on landscape scale management and/or farmer and local community collaboration have been reviewed as part of this project. The purpose of the case studies was to identify what lessons could be learned, both for land use policy and for the RSPB as a major landowner, from different approaches to landscape scale management and in relation to encouraging collaborative action. The following analysis mirrors the structure of the case studies. Each project or initiative examined as a case study is essentially unique but there appear to be some common traits and characteristics that influence outcomes and could be applied more widely through new projects and initiatives or may have implications for future land use policy. These traits and characteristics and what can be learned from them are considered in the following sections. This analysis concludes with an assessment of the extent to which the different case studies achieve landscape scale conservation, as defined at section 2.1. It should be noted however that not all of the projects examined set out to achieve landscape scale conservation. In other words, not all of them could be expected to achieve environmental objectives at landscape scale through the collaborative working of farmers.

5.2 Establishing landscape scale or collaborative projects

Defining project areas
Most of the case studies examined establish an overarching vision for a clearly defined area (or areas) selected on the basis of their bio-physical characteristics or where particular environmental problems have been identified and/or because they are meaningful to a local community i.e. local people can identify with them. The extent of land owned by participating parties is also a determinant, in some cases, of the area selected e.g. the land owned by United Utilities in the case of SCaMP. Several projects have a genuine landscape or catchment scale focus, including Pumlumon, MBG, SCaMP, many Landcare groups in Australia and the ECSFDI, and are trying to achieve common objectives in defined areas. In some cases, these areas are large, contiguous blocks of land. Other projects such as BIFF have used a pre-existing designation – in this case the Breadalbane Environmentally Sensitive Area – as a focus for activity. The scale of the geographic areas covered by projects varies from a few hectares in the case of the smallest commons in the Community Commons project to 405,000 hectares in the case of the MBG. Environmental Cooperatives in the Netherlands now cover almost 55% of the total agricultural area. The area selected for projects and their scale is always likely to vary from place to place and reflect, to some extent the purpose and nature of the project. Examples of best practice re selecting project areas can be found in the Community Commons and Pumlumon projects, both of which established clear criteria for selecting the project area. Overall, where projects seek to address issues at landscape scale and to do so through community engagement and collaboration, it is important that areas selected are both ecologically relevant and socially meaningful, as far as possible.
**Setting aims and objectives**

The reasons for the projects coming into being are highly variable. Some are instigated in response to what might be characterised as ‘top-down’ drivers such as legislative requirements whilst others are ‘bottom-up’ community led approaches to perceived problems in a locality. Whatever the genesis of projects, establishing an overarching vision for the project area and clear goals is important and all the projects examined have done so. All the projects examined have also established clearly identifiable objectives and, in many cases, an operational or management plan to guide activities on the ground. This seems essential for any project, whatever its scale, both to guide activity and measure progress against.

Whilst most of the projects reviewed can be identified as having an environmental rationale (apart from Monitor Farms and, to some extent, BIFF) this is not to the exclusion of other objectives. Achieving economic and social objectives, alongside environmental outcomes, is integral to many of the projects examined, effectively promoting sustainable rural development and/or sustainable land management. Projects including SCaMP, MBG, Pumlumon, Environmental Cooperatives and Landcare all focus on achieving environmental outcomes while recognising the need to support economically viable farming. A number of the projects also have a strong social or community focus seeking to build social capital and contribute to the development of social cohesion both within the farming community and wider rural community. This is particularly the case in the Community Commons, Environmental Cooperatives, MBG, Landcare and Pumlumon projects, which is perhaps a reflection of the ‘grass roots’ nature of these projects and their genesis within local communities. This desire to integrate economic, social and environmental objectives is perhaps not surprising given growing emphasis on sustainable development in a policy context. But not all projects have such a broad or integrated focus; SCaMP whilst seeking to achieve sustainable management of water catchments and recognising the need to do so through support for economically viable farming, makes no effort to engage the wider rural community or achieve any specific social outcomes. The same can largely be said of BIFF whilst the ECSFDI is essentially a highly focused diffuse pollution advisory initiative with little intention of having spin-off economic or social benefits. Equally, the Monitor Farms project is focused on business improvement and there are differing views amongst those involved as to whether the focus should be broadened to include environmental improvement or other aspects. Whilst there may be a place for such focused initiatives, opportunities to take a more integrated and holistic approach to land management need to be encouraged.

**5.3 Legal and administrative arrangements**

The legal and administrative arrangements for running projects and initiatives vary according to the type of project. Pumlumon, SCaMP and BIFF are all multi-partner projects and exhibit similarities in the way they have been established. The ECSFDI is essentially an advisory project but is also delivered through a partnership agreement whilst the Community Commons project has a strong community focus but is also instigated by a partnership. Common, and desirable, features of such partnerships include:
Some kind of formal Memorandum of Understanding (MoU) or agreement between project partners as to how the partnership will work and on respective roles and responsibilities

Regular meetings of project partners to discuss progress and agree action

The establishment of national and/or local stakeholder groups as a means of keeping others informed about the projects and to seek advice and input

For example, United Utilities and the RSPB are the two main project partners for SCaMP. These organisations have a formal, national MoU that establishes a basis for partnership working. There is a National Stakeholder Group comprised of key agencies such as Natural England, OFWAT and the Environment Agency and local stakeholder groups for each of the two project areas, the membership of which reflects stakeholder interests in each area. BIFF has a working group of project funders which includes local farming representatives. There is also a farmer-led BIFF Steering Group to incorporate wider land management interests in the area which meets every two months or so. The Community Commons and Pumlumon projects seem the least formally constituted; both are partnership projects but do not have any formal constitution or MoU between partners although partners meet regularly and both have either a management plan or strategic framework within which they operate. Neither appear to have established stakeholder groups for consultation although both have gone to considerable effort to engage with farmers and local communities in the planning and delivery of projects.

The constitution and governance of farmer or community led groups is rather different and tends to vary from case study to case study however, almost all have established some kind of formal governance structure to oversee operations. In the US, the MBG is a registered non-profit organisation with a Managing Director and a governing Board of Directors, comprised of local ranchers, scientists and other stakeholders, which meets quarterly. Similarly, many Landcare groups in Australia are established, in law, as non-profit making organisations with formal governance arrangements. Environmental cooperatives in the Netherlands have several different ways in which they can be constituted under Dutch law being formal associations (societies), foundations or legal cooperatives. However constituted, there is generally a governing Board, largely comprised of volunteers, which meets regularly and is responsible for the overall management and overseeing activities. In the UK, the Monitor Farms project has recognised the need to put in place arrangements to help the Community Groups and Monitor Farms work more effectively. Groups now tend to have a farmer-led governance group or committee of a few members with a farmer chairman to help agree objectives, make decisions and work with the Monitor Farmer and Facilitator to make progress. The Community Commons project has, on a number of commons, worked with the local community to establish commoners’ associations and develop relevant constitutions so that local communities can improve the governance of these common pool resources.

Landcare and Environmental Cooperatives are interesting as examples of initiatives that have expanded over time to encompass a large number of similar groups operating throughout a territory. Both of these have recognised the value of establishing regional groupings or networks of groups to share information and experiences and both now have national umbrella organisations which provide support and can represent groups at policy level. In the same vein, an evaluation of
Monitor Farms in Scotland identified the potential for greater networking between individual Facilitators and Monitor Farms in order to share experiences and learn from each other.

Most of the case studies examined suggest that participants recognise the importance and benefits of putting some kind of formal governance arrangements in place to ensure the success of projects. This indicates that any new projects of this nature need to pay close attention to governance and put in place appropriate arrangements to ensure projects are effective and transparent in their operations. Projects which are instigated by organisations and agencies rather than community led should take steps to include formal arrangements for wider stakeholder engagement. Such engagement can help to build support for projects, facilitate communication and information flows and aid the overall transparency of projects. Where similar types of groups or projects exist, there may be benefit from formalising some kind of networking arrangements.

5.4 Funding

Two types of funding appear to be important for landscape scale conservation projects. The first type is what might be considered as the ‘core’ or operational funding needed to, for example, establish project partnerships, employ staff and cover administrative and running costs. The second type of funding required is to finance activities on the ground e.g. to pay farmers to undertake conservation land management or to produce advisory and information materials. Both types of funding are important and appear to come from a variety of sources based on the case studies examined.

The case studies examined draw on a wide range of different sources of funding – both public and private - to take projects forward. Several projects are large scale, Government or agency funded projects providing significant injections of finance to take projects forward e.g. ECSDFI, SCaMP and, to a lesser extent, BIFF. All of these projects provide capital grant aid to farmers for various activities as well as providing advice, information and support and finance the overall operational costs of projects. The provision of grant aid is seen as particularly important in getting farmers to participate in these projects and to undertake activities that will benefit the environment and/or the farm business. Farmers can see a direct benefit to their business from capital grant aid e.g. for waste management facilities, livestock housing or machinery and are persuaded to get involved. These projects, along with many others such as Community Commons, Pumlumon and Environmental Cooperatives, also rely heavily on other, non-project sources of public funding, particularly agri-environment schemes and other schemes provided through Rural Development Plans e.g. woodland grant schemes. In many cases, advisors sign-post farmers to these sources of funding and often help them put in funding applications. Environmental Cooperatives in the Netherlands make use of agri-environment funding and other sources of public funds e.g. from water boards. This initiative is particularly interesting for its success in facilitating collective agri-environment agreements for farmers, bringing larger, contiguous areas of land into management and increasing participation rates overall. In Australia, Commonwealth and State programme funds support on the ground work for Landcare projects and in the USA, state agencies provide contributions towards cost-share programmes to help ranchers pay for capital works. It seems that many projects are creatively harnessing existing sources of funds.
to achieve objectives at landscape or catchment scale and that public sources of funding are critical to achieving conservation action on the ground.

Other sources of funding, especially private sector funds, are also important, especially for many of the farmer or community led projects. Some 40% of the activities of Environmental Cooperatives are funded by membership fees and through deductions made from assisting with collective contracts. Most of the current Monitor Farms in Scotland are funded primarily by Quality Meat Scotland from levies raised through the livestock sector. Ranchers and members of the local community involved in the MBG provide donations which help to fund activities. Landcare group members provide the majority of funds for activities with groups contributing six dollars for every dollar of external money received. Where capital grants are provided by projects, these usually have to be partially matched by private funds either in cash or in kind i.e. through contributions of labour. Corporate sponsorship is also a source of funds for some projects such as MBG, Landcare and some Environmental Cooperatives and the MBG has received funding from private foundations. The Community Commons project relies on substantive funding from the Heritage Lottery Fund as well as contributions from the lead partner, the Herefordshire Wildlife Trust. Equally, the RSPB and WTW, as project partners, are providing some funding for the SCaMP and Pumlumon projects respectively.

Funds are needed both for on-the-ground activities themselves and to cover administrative and management costs of projects. Some of the community led projects are able to access public funding to help community groups get established, a form of pump-priming which is helpful; this is the case for Landcare groups, the MBG and Environmental Cooperatives. For most of the farmer/community led projects, securing on-going funding is a key challenge and the sources relied on suggest a creative drawing together of whatever funds can be accessed – both public and private – to keep projects running and ensure goals are met. Perhaps the overarching lesson to be drawn in relation to funding is not that there should be one overall fund for projects of this nature but that there is the potential to bring different sources of public and private funding together to make projects work. The emphasis is perhaps more on the need to establish organisations and partnerships that can work to harness existing funds and use them to deliver landscape scale land management. Having said that, there is more that could be done in the UK in relation to public funding to facilitate collaborative land management. The situation in the Netherlands is instructive with the Government supporting start-up costs for Environmental Cooperatives and working closely with them to make it possible for farmers to apply for collective agri-environment agreements.

**Project lifespan**
The length of projects appears to be a key factor in their success and this is often related to the availability of funds. Projects need to establish a presence in an area, build momentum and keep going for long enough to make a measurable difference. They need, as far as possible, to leave a lasting legacy through, for example, on-going management agreements and by building social capital that ensures participants continue activities after project structures have been dismantled. The MBG has highlighted that some funders, such as foundations, tend to get involved with projects for short periods of time and then walk away leaving projects facing an uncertain financial future. Whilst securing sufficient and on-going funding is always likely to be
a challenge for many projects, being ‘in it for the long haul’ seems to be a prerequisite if projects are to make a real difference. This is especially likely to be the case for projects that set ambitious objectives for landscape scale management and seek to encourage collaboration among farmers and local communities. It is notable that MBG, Environmental Cooperatives and Landcare have all been running for a decade or more and BIFF has been running since 2000 although its future beyond 2009 is not certain. SCaMP, Community Commons and ECSFDI are all five year projects whilst Pumlumon has a fifteen year vision. Based on this limited sample, the evidence suggests that most project initiators recognise the need for projects to have a lifespan of at least five years.

5.5 Animation and facilitation

All projects need someone or a few key individuals or an organisation to initiate them and take a lead in keeping them running. In the case of the farmer/community led projects, the initial ideas appear to have come from one or a few individuals who recognised a particular problem and wanted to do something about it. Landcare, Environmental Cooperatives, MBG and BIFF were all started by farmers or members of the local community recognising environmental or other problems; the first two of these have since grown into nationwide initiatives with new groups started by similar, like-minded individuals. A study of the Environmental Cooperatives found that energetic and enthusiastic individuals, often younger farmers already active in farming organisations, have been instrumental in establishing cooperatives in the Netherlands. Community Commons and Pumlumon were initiated by conservation organisations wanting to achieve specific conservation objectives in their local area. From the earlier, longer list of possible case studies identified for this research, this type of project initiated by conservation organisations or nature conservation agencies is common. The ECSFDI is distinct in being a Government led initiative forming part of a wider Catchment Sensitive Programme to address diffuse water pollution. SCaMP began life as a pilot project and grew out of an existing relationship between two large organisations – RSPB and United Utilities – with particular and complementary interests in an area of land in the Peak District. The Monitor Farm project in Scotland was based on an idea developed originally in New Zealand and promoted here by the Scottish Agricultural College.

However the initial projects come about, taking them forward and keeping up momentum on the ground is usually a task for appointed project officers or coordinators, working to the overall governing body or organisation. All of the case studies examined have one or more of such individuals active in the project area who play a critical role in animating and facilitating activities. The specific role of these individuals varies from project to project but commonly includes:

- Liaising with project partners and stakeholders
- Engaging with farmers, land managers and members of the local community
- Coordinating groups including arranging and facilitating meetings
- Helping individuals in the project area make contact with each other and facilitating collaboration
- Providing support, guidance and information
- Undertaking wider communication and publicity work
- Assisting with grant applications
A recent evaluation of Monitor Farms in Scotland highlights the importance of the Facilitator and the critical role they play in driving the success of this approach. The authors identify a number of attributes and skills that Facilitators should have, most of which could be applied more widely to other situations where project officers are working with farmers, land managers and local communities. The following list is summarised and adapted from the Monitor Farm evaluation. Key attributes for Project Officers include:

- Knowledge of the project area and the issues being addressed e.g. agricultural, environmental issues
- A proactive ability to get farmers and others to share information
- Knowledge of group dynamics and a range of techniques for engaging farmers and local communities in exploring new ideas
- Ability to develop a working rapport with farmers and local communities, encouraging ownership of the process, being willing to respond to their interests yet able to balance these with the objectives of funders and programme managers
- Project management skills and clarity of focus in regard to the setting and monitoring of project objectives
- Ability to develop a good network of relevant contacts

Where Project Officers do not already possess all these skills, training could be provided at the outset.

In some situations, the perceived independence or impartiality of those animating projects can be valuable. For example, in the SCaMP project, RSPB project officers took the lead role in negotiating management agreements with tenant farmers rather than United Utilities, which, as the landlord, was often perceived as having a vested interest in farm improvements in order to increase rents. Non-Government bodies can also provide an important bridge between individual farmers, land owners and Government agencies. The MBG sees its role as critical in this regard having built an effective partnership between local ranchers and relevant agencies and helping to facilitate action on the ground.

5.6 Advice and information

**Advice provision**

Many of the projects examined provide advice and information to farmers and local communities and employ different techniques to achieve this. The ECSFDI is primarily an advisory project and employs dedicated Catchment Sensitive Farming Officers (CSFOs) in each priority catchment to facilitate group and one-to-one advice. CSFOs undertake 1:1 farm visits to give advice on a range of issues and organise group events such as workshops and seminars, on-farm walks and demonstrations. 1:1 visits are seen as the best means of engagement with farmers, allowing advice to be tailored to individual circumstances. The ECSFDI is also encouraging ‘champion farmers’ who are willing to promote best practice to others and, in some cases, have encouraged farmers to collaborate on specific activities. Most other projects offer some form of advice e.g. on the production and implementation of management plans,
sources of funding (including helping to prepare grant applications) and best practice land management, and produce various forms of information. For example, the BIFF project officer organises training events, produces a quarterly newsletter and the project is in the process of setting up a website which will be a source of information and advice for those interested in woodland management. Environmental Cooperatives support and advise members on how to apply for agri-environment schemes while Landcare, Australia (the national body) provides practical advice and information on running groups, funding sources and on best practice land management. The projects, through Project Officers or other staff, essentially become ‘one-stop-shops’ where farmers and members of the local community can go to find out more about what is on offer and receive practical help. These advisory and information functions appear to be central and valuable components of most projects and are welcomed by those who participate.

Publicity and awareness raising
Many projects also include some programme of wider communication and publicity work to raise awareness and highlight what the project is trying to achieve, as well as encourage participation. Evaluation of the ECSFDI highlights the importance of such communication in raising awareness and of the need for projects to have a coherent and recognisable identity. Awareness of the ECSFDI among farmers has increased since it began in 2006 but even a project of this scale and funding is failing to reach some farmers, with many not recognising its name or understanding who CSFOs are. The use of promotional and information material by Monitor Farms has helped to ensure the programme has a wider reach, with recognition of the programme generally high among the wider farming community, according to a recent evaluation. Ensuring sufficient resources are allocated to communication and publicity work is likely to be important to many projects of this nature that seek to engage farmers and members of local communities.

5.7 Engagement with farmers and local communities
Of the projects examined, a distinction can be drawn between projects initiated by agencies or organisations that seek to engage with farmers and local communities (ESCFDI, Pumlumon, Community Commons, SCaMP and BIFF) and those initiated by farmers and local communities themselves (MBG, Environmental Cooperatives and Landcare). Monitor Farms sit somewhere between the two with the project initiated originally by the project funders but then taken forward as genuine farmer led projects.

For those projects initiated by agencies or organisations, particular emphasis is given to engaging with farmers and local communities through Project Officers or other staff on the ground, as discussed earlier. Engagement in the early stages of projects appears to be especially important. The Community Commons project invested heavily in early community consultation including ‘knocking on doors’ in order to build support for the project and to understand the views of potential participants. Herefordshire Wildlife Trust, as project leaders, faced initial suspicion among the local community about their intentions and had to work hard to overcome initial misconceptions and build trust. The Pumlumon project has used intermediaries respected by farmers, the local NFU branch chairman in this case, to help make initial contacts with farmers and ‘open doors’. Face-to-face meetings, especially visiting
people at home ‘on their own territory’ appears to be especially effective in building support and participation and is noted in a number of projects including SCaMP, ECSFDI and BIFF. A number of projects also organised public meetings and events to explain what projects were about.

The number of people engaged by these projects varies with the size of the project. Each of the 11 Monitor Farms in Scotland has attracted a wider community group of, on average 33 participants, but the overall reach of the project appears to be greater with many farms in the wider community both aware of Monitor Farms and learning from them. The ECSFDI is a large, well funded programme covering 50 priority catchments. To date, it has provided advice to 6,100 farmers representing 15% of all farm holdings (23% by area) suggesting it still has a long way to go to broaden its reach. A key challenge for a project of this nature, and perhaps conservation projects more generally, is that those farmers projects might wish to engage, such as the worst polluters or least conservation minded, are those least likely to actively seek out advice or take up what is on offer. In other words, they are the most difficult to engage and particular effort might be needed to persuade them of the benefits of engagement. A number of projects including SCaMP, BIFF and the ECSFDI suggest that the availability of funding e.g. in the form of capital grants or management payments, can be particularly helpful in incentivising participation, especially where farmers can see a direct benefit to their business. The provision of advice, training and information provide further incentives for participation. A shortage of time and distance from organised meetings and events may be other reasons why farmers chose not to get involved. In themselves, these factors are difficult to overcome; farm visits may help and effort will be needed to demonstrate that the benefits of participation outweigh such inconveniences or potential barriers. In SCaMP, the RSPB has noted a generational effect in the way in which the project has been received with some older farmers having reservations but younger farmers (often the sons of the older generation) being much more receptive.

Three of the projects reviewed have been initiated by farmers or members of local communities themselves in response to particular issues. The MBG was started by a group of ranchers concerned about the diminishing quality of grasslands for grazing and development pressures. Today, the majority of ranchers in the project area, especially those with larger ranches, are involved with the project in one way or another. Those that are not are thought to desist from participation out of a mistrust of the public agencies which the MBG works with or simply because they have a strong independent streak. There is a growing trend of people buying land for lifestyle reasons as ranches are sub-dividided. The project has noted that these people are often enthusiastic about the work of the MBG and want to get involved but lack knowledge and experience of land management. This is a feature noted also by the Community Commons project amongst ‘newcomers’ to the area. Such individuals are likely to have different needs to those of farmers and projects may need to identify specific ways to engage with them. Environmental Cooperatives were started by a small group of farmers who perceived threats from Government legislation and feared compulsory purchase of land for nature conservation. There are now approximately 124 such cooperatives throughout the Netherlands. Founder members are usually energetic and enthusiastic individuals who are often already active in farming organisations and voluntary/community activities and they tend to be younger farmers. Once established, the Chairman and Board of the Cooperatives are instrumental in their
development and encouraging other farmers to get involved. In Australia, some 40% of farmers are now members of Landcare groups and a further 35% are influenced by Landcare activities. Some of the first farmer members tended to be environmentally orientated farmers and the groups reinforced and legitimised environmental values. As the movement has grown, the scope of the groups has widened and they have become increasingly more attractive to production-orientated farmers. A 1993 survey found that compared with farmers who were not Landcare members, participants were younger and better educated, more involved as members of other voluntary groups and worked significantly fewer hours off-farm. The success of Monitor Farms also seems to be dependent on the willingness and enthusiasm of farmers and others to participate and to generate their own momentum, albeit aided by a Facilitator.

It is notable that all three of the farmer/community led projects have been running for some time now and appear to be self-sustaining, perhaps drawing on the social capital they have built up. There also appear to be some similarities in terms of the type of individuals that start off such projects and subsequently get involved and keep them running. While Government and other organisations can and do provide practical assistance to help such projects e.g. funding to help start-ups and to support land management activities, it is the community-led genesis of these projects that is particularly interesting from a UK perspective. It is not entirely clear why some farmers in other countries appear more likely or willing to join forces and collaborate over land management, particularly for environmental reasons, than farmers in the UK. Earlier studies, reviewed in Chapter 2 of this report, highlight some of the barriers to collaboration and the opportunities to encourage it in the UK but do not fully explain why there have been hardly any farmer-led groups or initiatives, apart from those where farmers come together in business ventures e.g. branding and marketing farm produce. Such grass roots collaboration clearly cannot be forced and has to develop of its own accord; it requires a particular kind of motivation and mindset that does not appear to be prevalent in the UK. It may be however that more can be done in the UK and elsewhere to encourage and facilitate this kind of joint working, for example, by incentivising cooperation directly or requiring it as a condition of receiving certain other payments.

While many of the case studies focus on farmers and achieving sustainable land management, a number involve wider community engagement. This is a central component of the Community Commons project which encourages local people to volunteer for activities such as scrub clearance and species monitoring, offers guided walks on the commons and is working with local schools, using the commons as an educational resource. The Pumlumon project is also starting to work with local communities, engaging with non-farming businesses and developing access, recreation and education opportunities. Both highlight the value of building links between farmers and land owners and the wider rural community. Environmental Cooperatives, whilst essentially farmer-based organisations, do, in some cases, allow non-farmers to be members. The benefits of doing so are numerous and include: securing practical assistance for conservation activities; bringing specific expertise onto Boards e.g. financial or IT; increased credibility with local and government representatives; and, creating opportunities for learning and sharing new ideas and understanding different perspectives. Once again, the benefits of building social capital are highlighted. Of all the projects, Landcare is perhaps the one that extends farthest beyond farmers. In addition to Landcare farming groups, there are groups

81
focused on coastal issues, restoring wildlife habitats and a growing number of groups active in urban areas. The age and background of members in these groups is highly variable; Landcare appears to have found an approach capable of harnessing the interest and enthusiasm of a wide cross section of society to take action on environmental issues in local communities.

5.8 Environmental and other benefits achieved
Of key interest for this research is the extent to which projects are successful in achieving conservation objectives at landscape scale and the extent to which they encourage collaboration or cooperation between farmers, land owners and local communities. Not all of the projects have formal monitoring arrangements or have had evaluations of their impact undertaken and hence some of the identified benefits cited here are anecdotal. Where evaluations have been carried out, the impacts of projects can be more clearly identified. The impacts of the Pumlumon project are least certain since the project is in its early stages and few direct benefits can be identified so far. For the remaining eight case studies, a range of positive impacts can be pinpointed.

Environmental outcomes
Environmental benefits can be identified for six of the case study projects (Community Commons, SCaMP, ECSFDI, Landcare, MBG and Environmental Cooperatives) and in most cases, there is evidence of positive impacts (or likely to be positive impacts) at landscape/catchment scale. The Community Commons project is the notable exception here given the relatively small size of the commons involved and their scattered location. However, the practical management being encouraged on each of the commons involved is positive and is likely to result in both biodiversity and landscape benefits. On-going monitoring will, in due course, be able to identify specific benefits.

In SCaMP, a substantive programme of monitoring is taking place to assess the impacts of changes in land management on water quality, hydrology, habitat and biodiversity. Significant environmental benefits are anticipated at landscape scale as a result of bringing contiguous farms into similar management regimes. The project is also helping to demonstrate to farmers that managing land for public goods is valued and can offer a realistic income stream, alongside agricultural production. The ECSFDI is also subject to substantive monitoring and although impacts are too early to judge, models predict reductions in nutrients, sediments and pathogen losses to water courses as a result of the initiative. Predicted reductions at the catchment scale – less than 10% - are perhaps disappointing given the scale of public investment in this initiative although predicted reductions do rise to as much as 20-40% for some catchments. Landscape scale change would also appear to be a positive impact of Environmental Cooperatives although there appears to have been little formal evaluation or monitoring of environmental impacts. What can be demonstrated though is that the approach has resulted in large, contiguous areas of farmland being brought into agri-environment agreements and overall, higher participation rates in schemes than was otherwise expected. Improving water management – a key issue in the Netherlands - has been a particular target for many of the cooperatives established. In Australia, catchment management issues and preventing soil salinity and acidity have been key issues addressed by Landcare farming groups. Evaluations of Landcare
suggest that groups are making a difference to these issues at both farm and regional scale. Farmers who are Landcare group members are, on average, 50% more likely to adopt sustainable agricultural practices than other farmers. The MBG is also working at landscape scale – on over 405,000 ha of land – to address soil erosion and using fire to prevent scrub encroachment and maintain the open, grassland landscape.

**Farm business outcomes**
The Monitor Farm project does not set out to achieve environmental outcomes – its focus is on improving farm business performance. An evaluation of the project identified not only improved efficiency and financial margins for participating farmers but also positive behavioural changes in relation to farm business management. Monitor Farms are located throughout Scotland and cover a relatively small area; they cannot be said to be achieving change at landscape scale but are having some influence on wider farmer behaviour and hence reach out beyond the Monitor Farms themselves. BIFF has had some success in encouraging better utilisation of farm woodlands in the Breadalbane area with economic benefits for participating farmers. Some biodiversity and landscape benefits are also developing as under-managed woodlands are brought into more active management. The focus on a specific area may be beneficial in effecting positive management of blocks of woodland scattered throughout this area but cannot be said to be effecting landscape scale change as such.

**Social outcomes**
As well as environmental and economic benefits, other benefits – some of a more social nature - can be identified in some projects. Several projects including SCaMP, MBG, Landcare and Environmental Cooperatives demonstrate the value of building partnerships between the public sector and private individuals or collectives. The MBG considers that the partnership forged with government agencies is a key outcome of the project and has helped to shift the focus from confrontation, regulation and litigation towards finding common ground and encouraging joint working. Landcare also identifies the value of building partnerships between land owners and catchment management organisations and State agencies and the same can be said of Environmental Cooperatives. Government agencies should be actively seeking to develop such partnerships in order to help achieve national and regional environmental objectives. The MBG has had a significant impact in promoting a sense of land stewardship among ranchers and the local community and the Community Commons project appears to be encouraging a more conservation minded ethos among some participating commoners who then go on to review the management of other land they own. The ECSFDI also hopes, over time, to change the attitudes of farmers towards addressing environmental problems. Other social outcomes include enhanced opportunities for access and recreation, education e.g. where local schools are involved and community volunteering.

Some, but not all, of the projects mentioned above demonstrate genuine collaborative action between farmers and landowners/managers (and sometimes wider local communities), particularly MBG, Landcare and Environmental Cooperatives. Through this collaboration between neighbours and adjoining land holdings, change at a larger, landscape scale can be achieved. Others projects such as SCaMP and the ECSFDI are projects where those running them engage with farmers primarily on an individual basis rather than seeking to encourage collaboration. But by targeting
activity at specific areas these projects are able to achieve change (or potentially achieve change in the case of ECSFDI) across significant areas and, in the case of SCaMP, which targets contiguous land holdings, achieve genuine landscape scale change. The overall environmental outcome of both types of initiative is arguably the same but the means of achieving it is different. This raises the question as to whether there are further benefits of the bottom-up collaborative approach versus the more top-down approach of initiatives such as the ECSFDI and SCaMP? Perhaps the ultimate test will be in the long-term sustainability of the environmental outcomes, farmer awareness and social benefits.

All three of the collaborative approaches highlight what has already been referred to earlier in this analysis, the importance and benefits of building social capital. Social capital refers to aspects of social relationships such as social networks, trust and the norms of reciprocity and the literature suggests that without building and maintaining social capital, collective action is likely to be difficult to sustain. Other projects demonstrate aspects of building social capital. Monitor farms show increased networking among farmers and the building of close relationships, with farms more likely to share information and knowledge and work collaboratively. There are also some examples of farmer collaboration developing out of BIFF whilst the Community Commons project is facilitating collaborative working between commoners and with members of the local community. Building social capital takes time and effort but the case studies examined suggest there are real benefits to be gained from doing so, not least in terms of sustaining activity on the ground and enhancing outcomes. Environmental cooperatives also suggest that collective action is reducing government transaction costs for agri-environment schemes and improving their overall implementation. Whether more top-down projects which do not set out to build social capital and encourage collaborative action can be sustained without the on-going intervention of external project leaders is not clear from this study. But if there is no ownership of such projects by farmers and local communities themselves and collaborative networks are not established, the likelihood of activities continuing after the project initiators withdraw must be diminished. It would seem wise therefore that any project that sets out to achieve landscape scale management considers, at the start, what additional benefits could be achieved by encouraging wider ownership of the project and collaborative working between farmers and local communities and identifies what could be done to facilitate and encourage this.

5.9 Overall success of projects in achieving landscape scale conservation

As noted earlier, not all of the projects examined set out to deliver public goods at landscape scale through collaborative working amongst farmers i.e. to achieve agricultural landscape scale conservation. But all have at least one or more component that is relevant to this objective which warranted their inclusion in this study. For example, SCaMP clearly sets out to deliver landscape scale change but does not attempt to achieve collaborative working. The opposite could be said of the Community Commons project. Table 5.1 compares the 9 case study projects against three criteria: delivering public goods; delivering landscape scale change; and, achieving collaborative working amongst farmers. This highlights that three projects – MBG, Landcare and Environmental Cooperatives – appear to be the strongest in terms of achieving landscape scale conservation, meeting all three criteria. It should be noted however that Landcare is an approach to land management rather than a
specific project. The activities of different Landcare groups are highly variable and, in practice, not all are likely to be achieving landscape scale conservation. Equally, there are differences between environmental cooperatives in the Netherlands and some may be more effective than others in terms of landscape scale conservation.
Table 5.1: Comparison of case study projects in terms of achieving agricultural landscape scale conservation

<table>
<thead>
<tr>
<th>Project</th>
<th>Delivers public goods</th>
<th>Delivers landscape scale change</th>
<th>Achieves collaborative working amongst farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pumlumon</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>SCaMP</td>
<td>Y***</td>
<td>Y***</td>
<td>N</td>
</tr>
<tr>
<td>BIFF</td>
<td>Y*</td>
<td>N</td>
<td>Y*</td>
</tr>
<tr>
<td>Community Commons</td>
<td>Y***</td>
<td>N</td>
<td>Y***</td>
</tr>
<tr>
<td>ECSFDI</td>
<td>Y**</td>
<td>Y*</td>
<td>N</td>
</tr>
<tr>
<td>Monitor Farms</td>
<td>N</td>
<td>N</td>
<td>Y**</td>
</tr>
<tr>
<td>MBG</td>
<td>Y***</td>
<td>Y***</td>
<td>Y**</td>
</tr>
<tr>
<td>Landcare</td>
<td>Y***</td>
<td>Y**</td>
<td>Y***</td>
</tr>
<tr>
<td>Environmental Cooperatives</td>
<td>Y***</td>
<td>Y**</td>
<td>Y***</td>
</tr>
</tbody>
</table>

Key:
P = Potentially (insufficient evidence to date)
Y = Yes
N = No
* = Limited extent
** = Average extent
*** = Significant extent
6. Conclusions and recommendations

This section draws together the findings of the research and makes recommendations for achieving landscape scale management of agricultural land, with particular consideration of how collaborative working between farmers, land owners and local communities might be achieved in order to further this goal. The recommendations are relevant to both Government and its agencies, which may bring forward projects of this nature or seek to encourage them (policy recommendations), and to organisations such as the RSPB and other conservation bodies which may initiate landscape scale and/or collaborative projects (project recommendations). The recommendations may also be of interest to individuals or others interested in developing farmer or community led projects or initiatives.

The conclusions and recommendations flow from the analysis in Chapter 5 of this report and follow the same sub-headings used to structure the case studies and this analysis.

6.1 Establishing landscape scale or collaborative projects

The selection of geographic areas on which to focus projects is a critical first step in taking projects forward. Ideas for landscape scale or collaborative projects often emerge out of recognition of environmental or other problems in a particular locale. Ideally, areas selected for projects should represent functional conservation landscapes which are distinct from others. This will prescribe the overall size of the area selected which is likely to be intermediate between a ‘site’ and a larger ‘ecoregion’. Cultural and socio-economic characteristics need to be considered when selecting project areas as well as ecological characteristics, particularly where collaboration between land managers and local communities is an objective. All projects need to establish a clear vision and set objectives, both to guide activities and provide a benchmark against which progress can be measured. Those who are likely to be affected by landscape scale projects and those who will have a key role to play in achieving objectives e.g. farmers, land managers and local communities should be consulted in the early stages of project design and, ideally, participate in the setting of project objectives. Given the effort and resources required to establish landscape scale initiatives or achieve collaborative working, it would seem wise to try to maximise the benefits and outputs of such approaches. Land management projects should, wherever possible, adopt an integrated approach and seek to deliver environmental, economic and social benefits at the same time.

**Recommendation 1:** Identify target areas for projects using clearly elaborated criteria and ensure that these areas are ecologically relevant and socially meaningful i.e. they encompass specific biogeographic zones and are recognisable to and resonate with local communities.

**Recommendation 2:** Projects should establish an overarching goal and clearly defined objectives and be accompanied by an operational or management plan to guide activities on the ground. Those affected by project plans or who will be instrumental in project delivery should participate, as far as possible, in the process of setting objectives to ensure ownership.
Recommendation 3: Projects should, wherever possible, seek to take an integrated approach to land management and deliver environmental, economic and social benefits together, through landscape scale action.

6.2 Legal and administrative arrangements

Good governance is the key to any successful project or initiative. Projects are often likely to be multi-partner and arrangements need to be put in place to facilitate effective partnership working. Projects also often require input from other organisations or parties and affect local communities; establishing stakeholder fora is not only good practice but can offer a channel for ideas and practical assistance. The day-to-day operation of projects requires effective management and administration. Different arrangements may be appropriate depending on the type of project but the establishment of a management board or steering group appears to be a common and necessary requirement. Where a number of similar types of projects exist or where projects spawn multiple groups, establishing regional groupings or networks of groups to share information and experiences can be beneficial.

Recommendation 4: Multi-partner projects should establish:
- Some kind of formal Memorandum of Understanding (MoU) or agreement between project partners as to how the partnership will work and on respective roles and responsibilities
- Regular meetings of project partners to discuss progress and agree action
- National and/or local stakeholder groups as a means of keeping others informed about the projects and to seek advice and input

Recommendation 5: Projects need to put in place appropriate governance arrangements, establishing a management Board or steering group with a strong emphasis on farmer/local community representation. The exact constitution and legal arrangements for such groups will vary depending on the type of project but care should be taken to ensure these groups are locally accountable and their decision-making processes are transparent.

Recommendation 6: Where there are multiple groups or projects of the same or similar nature, there is value in establishing some means of networking between them to share information and experiences and to learn from each other.

6.3 Funding

Public funds are vital to the success of many projects. Capital grants and land management payments such as those provided through agri-environment schemes are particularly important in getting farmers to participate and undertake land management activities. Funds which directly benefit the farm business are particularly attractive to farmers and can help to incentivise participation. Private funds from farmer and community members ( memberships, levies and donations) are vital to the operation of many projects and often outweigh public funds in value. Other funds such as those from foundations and corporate sponsorship may also be important but tend to be more ephemeral. Securing on-going funding for projects is challenging. Start-up costs or pump priming from public sources can be extremely valuable in aiding the establishment of farmer or community led groups. Funding for
collaborative land management agreements is not commonly found in the UK but can be highly effective in facilitating collaborative working, as witnessed in the Netherlands with Environmental Cooperatives. There may be a case for introducing similar collaborative agreements here in the UK. The lifespan of a project is often determined by the availability of project funding. Landscape scale or collaborative projects need to run for long enough to build momentum and to make a difference on the ground; a lifespan of five years appears to be a minimum. Community projects which adopt a long term vision can become self-sustaining by building social capital.

**Recommendation 7:** At the outset, project managers should identify relevant sources of public funds and work with the providers of such funds to ensure they can be accessed to the benefit of the project.

**Recommendation 8:** Project managers should identify sources of private funds and work with the providers of such funds to ensure they can be accessed to the benefit of the project. The potential for a creative merging of both public and private funds should be explored to help underpin and support project activities.

**Recommendation 9:** Government agencies in the UK should provide funding to assist with the start-up costs of farmer/community led groups for landscape scale projects.

**Recommendation 10:** Government agencies in the UK responsible for delivering rural development schemes, especially agri-environment and woodland grant schemes, should consider the potential for supporting collaborative land management agreements to bring contiguous areas of land into conservation management. This may require revisions to existing schemes and incentivising collaboration e.g. through uplifts in payments, introducing new funding streams or allowing staggered applications.

**Recommendation 11:** Project initiators need to secure long term funding for landscape scale/collaborative projects and ensure that they run for a minimum of five years, and preferably longer.

### 6.4 Animation and facilitation

Landscape scale conservation and community led projects need initiators. These can be one or a few individuals who recognise a problem and want to take action. Initiators of farmer/community led projects are often young, enthusiastic individuals who are already active and well networked in their local communities. Such individuals need to be encouraged. Conservation organisations also take the lead in initiating landscape scale projects and there are numerous examples of such initiatives. There may be a case for such organisations working together more strategically at local/regional level to develop and take forward joint conservation projects, as well as working with government agencies. Project officers or other project staff play a critical role in animating and facilitating projects on the ground. Such individuals need key skills and characteristics. Projects need to employ the right individuals with such skills and characteristics and provide training where necessary to ensure they can do their job effectively. In some situations, there is value in those working on the ground being independent of project funders; at the very least, they
need to be viewed as impartial in undertaking their role and must be respected by farmers, land managers and local communities.

**Recommendation 12:** Government agencies and conservation bodies should do more to encourage farmer/community leaders to come forward with ideas for landscape scale/community led projects, providing funds to assist group start-ups and for collaborative working (see Recommendations 9 and 10) as well as practical advice and training for individuals who might be willing to act as ‘farmer and/or community champions’.

**Recommendation 13:** Projects should employ Project Officers or other on-the-ground staff with the requisite skills and knowledge to take projects forward including: knowledge of the project area and issues to be addressed; the ability to work with farmer/community groups and maximise the group potential; the ability to manage projects; and, having extensive contacts in the area and the ability to network. Appropriate training should be provided to help staff develop such skills and knowledge, where it is lacking.

**Recommendation 14:** Projects should consider whether there would be benefit in using intermediaries or independent facilitators to communicate and engage with farmers/local communities at different stages throughout projects, particularly where issues are contentious or there is a history of conflict between project initiators and potential participants.

### 6.5 Advice and information
Advisory and information functions appear to be central and valuable components of most projects and are welcomed by those who participate. A wide range of different methods and techniques can be used to provide information and advice. There seems to be particular benefits from 1:1 engagement with farmers and land managers, which allows advice to be tailored to individual circumstances, and from providing ‘one-stop’ sources of advice and information. This is often a key role for Project Officers and other on-the-ground staff. Wider communication and publicity work is essential to promote projects to farmers, local communities and other stakeholders and to raise general awareness of project objectives and activities; events, newsletters and websites as well as publicity through local media can be helpful here.

**Recommendation 15:** Projects which seek to convey specific advice and information to farmers and land managers should employ a wide range of media and techniques to do so but should make specific provision for 1:1 advice, wherever possible, as the most effective means.

**Recommendation 16:** Projects should allocate sufficient resources to wider communication and publicity work to raise awareness about projects and what is on offer and to encourage participation.

### 6.6 Engagement with farmers and local communities
Government or organisation led projects need to make a significant investment early on to consult with potential participants and local communities to raise awareness of
projects and build trust. There appears to be no substitute for ‘knocking on doors’ and visiting people at home although public meetings and events and publicity material can also be used to good effect. In many cases, the people that government, its agencies or conservation bodies most want to engage are often the most difficult. For example, more conservation minded farmers are already likely to be open to environmental initiatives and schemes whilst less conservation minded farmers are either unaware of or closed to such initiatives. Particular effort is likely to be needed to engage the latter in landscape scale or other environmental projects. It may also be the case that other factors such as time or location are barriers to participation and ways need to be found to overcome such barriers. The number of people buying land for ‘lifestyle’ reasons is also increasing in the UK and elsewhere and such land owners may have different needs and responses compared to more ‘traditional’ farmers.

Several examples of genuine farmer-to-farmer collaboration for environmental land management have been identified by this research, all of them non-UK examples. As discussed earlier (Section 1.3, Recommendation 10), encouraging this type of collaboration in the UK would be advantageous in securing landscape scale management of agricultural land. Collaborative working is not however something that can be forced and whilst appropriate funding streams may incentivise such behaviour, a desire and demand for it needs to come from farmers themselves. In the absence of a naturally occurring collaborative mindset in the UK, there may be things that government agencies and conservation organisations can do to help promote it by identifying and supporting key individuals in local areas – farmer champions (see Recommendation 12). There is some evidence of this approach being used already in the ECSFDI whilst the Monitor Farms project demonstrates the potential of farmer-led groups for joint working. Such initiatives need to be built on.

Several case studies highlight the benefits of collaboration between farmers/land managers and other non-land managing members of local communities who can provide labour e.g. for conservation activities such as scrub clearance, or specific expertise and knowledge e.g. on finance or IT or assist in the monitoring of projects. Both Landcare and Environmental Cooperatives demonstrate the benefits of such collaboration and indicate the type of structures and governance arrangements that need to be put in place to operate such groups. What such initiatives demonstrate best of all is the value of building social capital in order to take projects forward and sustain them in the long term. Whilst there may be a place for more top-down initiatives (those led by government agencies and organisations) that engage with farmers and local communities and encourage collaboration, there would appear to be added value from bottom-up community led approaches that genuinely embed conservation objectives in local communities and maximise engagement and environmental outcomes. There may be some merit in considering how such community led activity could be encouraged in the UK (see Recommendations 9 and 12). One avenue that may warrant further consideration is that of Leader, the fourth Axis of the European Agricultural Fund for Rural Development. Leader funds Local Action Groups, comprised of community stakeholders and active in a specific locale, which work to achieve economic, social and environmental objectives. A 2006 study
of Leader in the UK identified a number of ways in which Leader funds could be used more effectively to achieve environmental outcomes.

Finally, several case studies highlight the benefits of partnership between private individuals or community groups and public sector agencies to achieve conservation objectives. Through such partnerships, community groups benefit from funding and, in some cases, advice and other assistance from public agencies whilst agencies can overcome confrontation and the need for regulation and more effectively achieve national or regional conservation objectives. In particular, partnerships avoid situations of agencies parachuting into areas to solve problems that local communities may not recognise or have little enthusiasm for addressing. There is perhaps, an onus on the public sector to be more active in building and developing such partnerships with local communities in order to achieve conservation or other environmental objectives.

**Recommendation 17:** Where government or other organisations initiate and lead projects, they need to invest substantially in the early stages in farmer/community engagement to raise awareness, develop trust and build support for projects. There may be considerable advantage in both the public sector and local communities establishing formal partnerships with each other to further the objective of landscape scale conservation.

**Recommendation 18:** Projects should offer a range of incentives – grants, 1:1 advice, demonstrations, training etc - to encourage farmers and land managers to participate in environmental land management projects. Barriers to participation should be identified early on and efforts made to overcome these as far as possible. Newcomers to land management may require different incentives and encouragement to participate than ‘traditional’ farmers.

**Recommendation 19:** The potential to encourage Local Action Groups funded by Leader to develop and implement landscape scale conservation projects, and to promote collaborative working between farmers, land owners and local communities, should be explored.

### 6.7 Principles for agricultural landscape scale conservation

The conclusions and recommendations presented above have been distilled further into a set of over-arching principles that can be applied to any Agricultural Landscape Scale Conservation (ALSC) project or initiative, as follows:

1. Target areas for ALSC projects should be ecologically relevant and socially meaningful and be selected on the basis of clearly identified criteria.
2. ALSC projects should establish clear goals and objectives from the outset, in collaboration with key stakeholders and partners.

---

3. ALSC projects should take an integrated approach to land management and seek to deliver environmental, economic and social benefits at landscape scale, wherever possible.

4. Good governance is key to effective ALSC – projects require representative, locally accountable and transparent governance arrangements.

5. ALSC requires long term funding from public and/or private sources, to cover both core, administrative costs and pay for conservation activity on the ground.

6. Projects need animation and facilitation by project staff, farmer/community leaders or both. Such individuals must have the requisite skills and knowledge to run projects and be respected and trusted by the farming/local community.

7. Providing conservation advice to land managers should be a key component of ALSC projects and is best delivered through 1:1 methods and supported by other means.

8. ALSC projects need to be publicised to encourage participation and facilitate understanding. Sufficient resources need to be allocated for this purpose.

9. ALSC projects must enthuse, engage and empower farmers and local communities, particularly where projects are initiated by government or other organisations.

10. Participation in an ALSC project should to be encouraged by offering a wide range of incentives (both financial and non-financial) and barriers to participation need to be both understood and overcome.

The benefits of pursuing ALSC are potentially great. ALSC represents an approach to land management that can help to reverse the degradation and fragmentation of priority habitats and benefit associated species. The more integrated approach to land management, implicit in the concept, should also yield other benefits, alongside those for biodiversity, in relation to climate change mitigation, flood protection and water quality. This research project has highlighted some of the key needs and core principles that need to be followed to achieve ALSC, building on earlier research. The best examples of ALSC seem to be those that are farmer/community led and which operate over an area that is meaningful to those communities as well as coherent in bio-physical terms. Well run projects have put in place good governance arrangements, established clear goals and objectives and employ skilled people or work in partnership with those who can provide expertise and knowledge. On-going funding is frequently a challenge for projects but the best projects make use of a wide range of different funding streams from both the public and private sectors. Good projects promote their activities, encourage active participation, using various incentives as necessary, and enthuse and empower farmers and others to take action. Of the case studies reviewed, the MBG, Landcare, Environmental Cooperatives and SCaMP apply the basic principles of ALSC most consistently and appear to be most successful in delivering environmental protection and/or wildlife conservation at the landscape scale. Greater application of the ALSC approach needs to be encouraged if the many environmental challenges facing us – including climate change, biodiversity loss and water pollution - are to be addressed adequately in future.
References:


Biodiversity: The UK Steering Group Report, 1995


Wildlife Trusts () Living Landscapes: A call to restore the UK’s battered ecosystems for wildlife and people. Wildlife Trusts, Lincoln, UK.


WWF (2004a) From the Vision to the Ground: A guide to implementing ecoregion conservation in priority areas. WWF Conservation Science Programme.


## Annex 1: List of Initiatives for Initial Review

<table>
<thead>
<tr>
<th>UK</th>
<th>Name</th>
<th>Location</th>
<th>Issue addressed</th>
<th>Type of initiative</th>
<th>Brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hay Time</td>
<td>North Pennines</td>
<td>Biodiversity Conservation</td>
<td>Multi-partner</td>
<td>AONB led partnership to enhance and restore upland hay meadows through conservation action, advice to farmers and community engagement</td>
</tr>
<tr>
<td></td>
<td>Limestone Country</td>
<td>Yorkshire Dales</td>
<td>Biodiversity Conservation</td>
<td>Multi-partner</td>
<td>Yorkshire Dales NPA led partnership to restore/enhance 1500 ha of Annex 1 wildlife sites by encouraging a return to mixed farming and re-introduction of cattle. Encouraged management plans and provided funding and advice, ran best practice demonstration events</td>
</tr>
<tr>
<td></td>
<td>Pumlumon Large Areas Conservation Project</td>
<td>Montgomeryshire</td>
<td>Biodiversity and Landscape Conservation</td>
<td>Multi-partner</td>
<td>Wildlife Trust Wales led partnership to promote conservation of largest watershed in Wales through a Whole Area Landscape Strategy, encouraging farm level conservation and social and economic regeneration</td>
</tr>
<tr>
<td></td>
<td>Southern Uplands Partnership</td>
<td>Rural South Scotland</td>
<td>Sustainable rural development and land use</td>
<td>Multi-partner</td>
<td>Southern Uplands Partnership (charitable company) seeks to unite organisations, individuals and communities, develop projects that address needs of Southern Uplands and promote productive exchange of ideas around practical land use issues</td>
</tr>
<tr>
<td></td>
<td>Ripon Multi-Objective Project</td>
<td>Ripon, Yorkshire</td>
<td>Flood mitigation + soil management and habitat creation</td>
<td>Multi-partner</td>
<td>AONB led project with funding from EA to provide capital grants e.g. for tree planting, buffer strips, ditch management, moorland grip blocking and advice re agri-environment schemes and nutrient management</td>
</tr>
<tr>
<td></td>
<td>Sustainable Farming Initiative</td>
<td>Thames Valley</td>
<td>Biodiversity Conservation</td>
<td>Multi-partner</td>
<td>Wildlife Conservation Research Unit led project aiming to recruit farmers into agri-environment schemes in order to achieve habitat connectivity by offering free Whole Farm Conservation Plan and advice on grants</td>
</tr>
<tr>
<td></td>
<td>West Weald Landscape Partnership</td>
<td>Low Weald</td>
<td>Landscape &amp; Biodiversity Conservation</td>
<td>Multi partner</td>
<td>Sussex Wildlife Trust led partnership working at landscape scale to conserve and enhance environment with focus on core forest areas and aim to establish better connections between sites by working with farmers and landowners</td>
</tr>
<tr>
<td>Project Name</td>
<td>Location</td>
<td>Focus Area</td>
<td>Type</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>---------------------------</td>
<td>-------------------------------------------------</td>
<td>-----------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Ouse Enhancement Project</td>
<td>River Ouse and tributaries</td>
<td>Improved water management</td>
<td>Multi-partner</td>
<td>Environment Agency led project to improve environment of River Ouse and tributaries to benefit biodiversity, landscapes, reduce flood risk, increase access and support tourism. Range of activities proposed including land management.</td>
<td></td>
</tr>
<tr>
<td>SCaMP</td>
<td>North West region</td>
<td>Improved water management</td>
<td>Multi-partner</td>
<td>United Utilities and RSPB programme to deliver sustainable catchment management and enhance biodiversity through management of upland habitats, working with farmers and land managers and others, providing capital grants and drawing on agri-environment funding</td>
<td></td>
</tr>
<tr>
<td>Landscape-Scale Conservation on the Isle of Eigg</td>
<td>Isle of Eigg</td>
<td>Landscape and Biodiversity Conservation</td>
<td>Community group</td>
<td>Isle of Eigg Heritage Trust led project to deliver sustainable land management through community action including habitat management and recreation</td>
<td></td>
</tr>
<tr>
<td>Rebuilding Dorset's Biodiversity</td>
<td>Dorset</td>
<td>Biodiversity Conservation</td>
<td>Multi-partner</td>
<td>Dorset Wildlife Trust led project to initiate a programme of landscape scale conservation in pilot areas, creating or recreating priority habitats across large areas, working in partnership with other organisations, landowners and the local community</td>
<td></td>
</tr>
<tr>
<td>The Great Fen project</td>
<td>Cambridgeshire Fens</td>
<td>Biodiversity Conservation</td>
<td>Multi-partner</td>
<td>Local Wildlife Trust led partnership to restore 3,700 ha of fenland from arable land, connecting two existing NNRs through land acquisition and working with landowners</td>
<td></td>
</tr>
<tr>
<td>A Vision for Tame Valley</td>
<td>Tame Valley, Warwickshire</td>
<td>Biodiversity Conservation</td>
<td>Multi-partner</td>
<td>Warwickshire Wildlife Trust led partnership to enhance the management of existing wetland habitats and enlarge priority BAP habitats, by promoting sympathetic land management, providing advice, guidance and signposting, and promote public access</td>
<td></td>
</tr>
<tr>
<td>Sustainable Development on Glenlivet Estate</td>
<td>North East Scotland</td>
<td>Sustainable development and land use</td>
<td>Estate-based</td>
<td>Crown Estate initiative on 23,000 ha Highland owned estate including a range of projects designed to benefit local community and the natural environment and demonstrate the benefits of an integrated approach to land management</td>
<td></td>
</tr>
<tr>
<td>The Tweed Forum</td>
<td>Scottish Borders/North Northumberland</td>
<td>Integrated catchment management</td>
<td>Multi-partner</td>
<td>The Tweed Forum (not-for-profit company) works in partnership to conserve and enhance the water environment and the natural, cultural and built heritage associated with the River Tweed and its tributaries. Produced a Catchment Plan and initiates numerous projects e.g. River Till Wetland Restoration project working with farmers and landowners to reconnect the river to its natural floodplain and restore wetland habitats</td>
<td></td>
</tr>
<tr>
<td><strong>Thames Chase Community Forest</strong></td>
<td>East London and South Essex</td>
<td>Landscape regeneration</td>
<td>Multi-partner</td>
<td>Partnership to renew and regenerate the landscape by creating Thames Chase, one of 12 Community Forests. Aim to increase woodland cover and manage existing woodlands and other habitats, create access opportunities and involve local community.</td>
<td></td>
</tr>
<tr>
<td><strong>Moors for the Future</strong></td>
<td>Peak District</td>
<td>Biodiversity and Landscape Conservation</td>
<td>Multi-partner</td>
<td>Multiple partners working to restore 6km2 heather moorland and peat bogs for wildlife, landscape and recreational benefit. Includes research and practical conservation action including working with landowners.</td>
<td></td>
</tr>
<tr>
<td><strong>Pastures New</strong></td>
<td>West Dorset</td>
<td>Biodiversity Conservation</td>
<td>Advisory</td>
<td>Dorset Wildlife Trust led project to help protect and restore species rich grasslands by providing free advice on grassland management, co-ordinating volunteer help, funding capital works and business advice.</td>
<td></td>
</tr>
<tr>
<td><strong>Bowland Wader Project</strong></td>
<td>Forest of Bowland, Lancashire</td>
<td>Biodiversity Conservation</td>
<td>Advisory</td>
<td>RSPB led project, part of wider Birds of Bowland Project (multi-partner), to encourage farmers and landowners to adopt land management practices that benefit breeding waders. Farmers receive free advice and support re agri-environment scheme applications.</td>
<td></td>
</tr>
<tr>
<td><strong>Wild Ennerdale</strong></td>
<td>Lake District</td>
<td>Biodiversity and Landscape Conservation</td>
<td>Multi-partner</td>
<td>Partnership seeking to develop Ennerdale Valley as a unique wild place allowing natural forces to become more dominant in shaping the landscape and the ecology. Produce Stewardship Plan to guide management and activities.</td>
<td></td>
</tr>
<tr>
<td><strong>The Gower Commons Initiative</strong></td>
<td>Gower Peninsula</td>
<td>Biodiversity Conservation and Public Access</td>
<td>Multi-partner</td>
<td>Gower Heathland Partnership brings together diverse partners who work with land owners, commoners and others to sustain the commons of the Gower for grazing, nature conservation and access. Activities include bracken control. The project facilitates much of the work through the Gower Commoners Association and volunteers.</td>
<td></td>
</tr>
<tr>
<td><strong>England Catchment Sensitive Farming Delivery Initiative</strong></td>
<td>Priority catchments in England</td>
<td>Improved water management</td>
<td>Advisory</td>
<td>Defra led and funded initiative to meet objectives of WFD through partnership working, funding of Catchment Sensitive Farming Officers and provision of advice (events &amp; farm visits) to farmers to encourage Catchment Sensitive Farming + support for associate projects.</td>
<td></td>
</tr>
<tr>
<td><strong>English Food and Farming Partnership</strong></td>
<td>England wide</td>
<td>Farm business development</td>
<td>Advisory</td>
<td>Delivers business advice and offers support to farm businesses through regionally based advisors and central team, including supporting collaboration between farmers to reduce costs, improve efficiencies and add value to businesses.</td>
<td></td>
</tr>
<tr>
<td>Project Name</td>
<td>Location</td>
<td>Sector</td>
<td>Type</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>---------------------------</td>
<td>--------------------------------</td>
<td>-----------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Cayton and Flixton Carrs Wetland Project</td>
<td>Vale of Pickering, North Yorkshire</td>
<td>Biodiversity Conservation/Protect archaeology</td>
<td>Multi-partner</td>
<td>Scarborough Borough Council led partnership seeking to restore wetland habitats by undertaking surveys and data collection and giving advice and assistance to farmers to access agri-environment funding.</td>
<td></td>
</tr>
<tr>
<td>Bowland Farmers Cooperative</td>
<td>Forest of Bowland, Lancashire</td>
<td>Farm business development</td>
<td>Cooperative marketing</td>
<td>A small group of farmers who work together to market and promote quality, locally branded products, primarily meat produced in an environmentally friendly way, including products branded as Bowland Forest Foods, Heather Reared Lamb and Lancashire Pride.</td>
<td></td>
</tr>
<tr>
<td>Cambrian Organics</td>
<td>Ceredigion, Wales</td>
<td>Farm development</td>
<td>Cooperative marketing</td>
<td>A small group of Welsh organic farmers with shared values who work together to market and sell produce through local markets, a box scheme and mail order.</td>
<td></td>
</tr>
<tr>
<td>Breadalbane Initiative in Farm Forestry</td>
<td>Breadalbane, Perth and Kinross</td>
<td>Farm development</td>
<td>Multi-partner</td>
<td>Partnership between agencies and farmers to enhance employment opportunities, develop a cooperative approach to farm diversification, utilise under-used farm woodlands, respond to market demands e.g. for wood fuel.</td>
<td></td>
</tr>
<tr>
<td>West Country Rivers Trust</td>
<td>South west England</td>
<td>Improved water management</td>
<td>Multi-partner</td>
<td>Works in partnership to give advice to farmers and landowners, initiate projects and undertake habitat management and restoration to improve water quality and address issues such as diffuse pollution. Cornwall Rivers project targeted 670 farms and land holdings, offering farm management plans and advice plus grant aid for e.g. fencing</td>
<td></td>
</tr>
<tr>
<td>Back Grouse Recovery Project</td>
<td>Argyll and Bute</td>
<td>Biodiversity Conservation</td>
<td>Multi-partner</td>
<td>Partnership to survey and identify Core Areas for Black Grouse and improve habitat management. Employs project officer to advise and comment on Forest Grant Scheme applications and agri-environment scheme applications and seek funding for implementing Core Area habitat management plans</td>
<td></td>
</tr>
<tr>
<td>Dartmoor Hill Farm project</td>
<td>Dartmoor National Park</td>
<td>Farm development</td>
<td>Advisory</td>
<td>NPA led project to help Dartmoor farmers with advice, guidance, collaborative activities, communication and funding. Includes training and running events and establishment of Dartmoor Skills apprenticeship</td>
<td></td>
</tr>
<tr>
<td>Monitor Farms</td>
<td>Various regions,Scotland</td>
<td>Farm development</td>
<td>Farmers discussion and education groups</td>
<td>Based on New Zealand model, a commercial farm - representative of an area - is selected as a Monitor Farm, and a farm community group established which visits the farm. Aim is to improve the economic performance and encourage farmer communication. Groups are led by a facilitator.</td>
<td></td>
</tr>
<tr>
<td>Agrisgôp</td>
<td>Wales</td>
<td>Farm business development</td>
<td>Farmer discussion and education groups</td>
<td>Developed as part of Farming Connect. A free programme helping farmers to develop skills, ideas and future plans for business. Groups of farmers at local level led by facilitators</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>----------------</td>
<td>--------------------------</td>
<td>-----------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Community Commons</td>
<td>Herefordshire</td>
<td>Biodiversity Conservation</td>
<td>Community group</td>
<td>Herefordshire Wildlife Trust led project working with local landowners, commoners and stakeholders to increase awareness of wildlife on commons and involvement in conservation. Support local communities to produce action plans for commons and implement them through 2 Community Commons Project Officers, provision of funding and training.</td>
<td></td>
</tr>
<tr>
<td>Empool project</td>
<td>Dorset</td>
<td>Improved water management</td>
<td>Advisory</td>
<td>Wessex Water led project to reduce nitrate pollution including targeted farm advice, practical workshops and demonstrations, production of soil, manure and nutrient management plans, supported by Catchment Advisor. Farmers will draw down agri-environment funds as appropriate to support management</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Location</td>
<td>Issue addressed</td>
<td>Type of initiative</td>
<td>Brief description</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------</td>
<td>-----------------------</td>
<td>-------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Watershed Catchment Groups</td>
<td>Emå river catchment, Sweden</td>
<td>Improved water management</td>
<td>Farmer groups</td>
<td>WCGs plan how to reduce nutrient losses from their own farms and forestlands, with advisory and grant aid support</td>
<td></td>
</tr>
<tr>
<td>VEL and VANLA</td>
<td>Local areas, Netherlands</td>
<td>Environmental management</td>
<td>Farmer/community groups</td>
<td>Environmental cooperatives active throughout Netherlands at local level to improve environmental management through integrated agriculture, pollution control and nature management.</td>
<td></td>
</tr>
<tr>
<td>Ferti-mieux</td>
<td>France</td>
<td>Improved water management</td>
<td>Farmer discussion and education groups</td>
<td>National programme to mobilise voluntary action through local projects and farmer groups to reduce nitrate pollution. Provision of advice, group discussion and experimentation to identify and apply better management practices. Co-funded by Government and industry</td>
<td></td>
</tr>
<tr>
<td>Landcare</td>
<td>Australia (and developing in USA)</td>
<td>Sustainable land management</td>
<td>Farmer/community groups</td>
<td>National network of locally based community groups working to improve the management of natural resources through a variety of actions and initiatives. More than 40% of farmers are involved in Landcare. Project example: Tarcuta Creek Rivercare Plan involving 100 landholders to protect streams, plant trees and shrubs and erect fencing to reduce soil and streambank erosion.</td>
<td></td>
</tr>
<tr>
<td>Monitor Farms</td>
<td>New Zealand</td>
<td>Farm business development</td>
<td>Farmer discussion and education groups</td>
<td>Farmer-owned community run groups who elect one member to be a central monitor farm for three years. This farm is then used as an example to motivate other group members and to improve farm performance in the local group area. Groups (25-70 members) include farmers, vets, ancillary industries and are supported by a facilitator chosen by the group</td>
<td></td>
</tr>
<tr>
<td>Malpai Borderlands Group</td>
<td>Southeastern Arizona &amp; southwestern New Mexico</td>
<td>Biodiversity Conservation</td>
<td>Farmer/community groups</td>
<td>Landowner-led non-profit organisation aiming to implement ecosystem management on 1 million hectares bringing together ranchers, scientists and key agencies undertaking land restoration, endangered species habitat protection and ranch improvements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>Sustainable land management</td>
<td>Private Charity</td>
<td>Charitable organisation operating at local and regional levels to conserve land for its natural, recreational, scenic, historical and productive value. Land Trusts can purchase land for permanent protection, accept funds or donations for land purchase, accept donations of conservation easements or, in some instances, purchase conservation easements.</td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------</td>
<td>-----------------------------</td>
<td>--------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Upper Stony Creek Watershed Restoration</td>
<td>California</td>
<td>Catchment management</td>
<td>Multi-partner</td>
<td>Natural Resource Conservation Service led partnership, working with local private landowners to promote changes to range land management to improve soil, water and habitat quality. Includes advice and education programmes, long-term land management contracts and use of conservation easements.</td>
<td></td>
</tr>
<tr>
<td>Ranchers Working to Conserve Prairie Habitats</td>
<td>Montana, North Dakota, South Dakota</td>
<td>Biodiversity Conservation</td>
<td>Multi-partner</td>
<td>Ducks Unlimited working with Fish and Wildlife Service and other partners to protect prairie resources through conservation easements on grasslands to prevent ploughing and avoid cutting in nesting season and on wetlands to prevent drainage or other alterations. 22,000 conservation easements applied to 8.75 million acres of breeding habitat for waterfowl and other wildlife.</td>
<td></td>
</tr>
</tbody>
</table>