

# Public goods and public intervention in agriculture



**European Commission**  
Agriculture and  
Rural Development





## European Network for Rural Development

The European Network for Rural Development (EN RD) contributes to the efficient implementation of Rural Development Programmes (RDPs) throughout the European Union (EU).

Each Member State has established a National Rural Network (NRN) which brings together the organisations and administrations involved in rural development.

At EU level, the EN RD ensures the networking of these national networks, organisations and administrations.

Find out more on the EN RD website (<http://enrd.ec.europa.eu>).

Cover photo © S. Huband

## Authors and contributors

David Baldock, Kaley Hart, Martin Scheele

## Acknowledgements

EN RD Contact point: Fabio Cossu, Michael Gregory, Mark Redman, Angelo Strano

# Table of contents

Preface .....	3
1 / What are public goods? .....	4
2 / The main public goods provided by agriculture .....	4
3 / Farming practices that deliver public goods .....	6
4 / Why we need incentives for the provision of public goods .....	8
5 / The use of Rural Development policy to encourage the provision of public goods .....	8
6 / Key points for success .....	15
7 / Conclusion .....	15
8 / Case studies .....	16



# PREFACE

The phrase 'public goods' has been gaining popularity in recent years, in the EU and elsewhere. Nevertheless, at times the term seems still to be surrounded by an aura of faint mystery. What are 'public goods'? How do they differ from 'private goods'? How tightly should we define the phrase? And what is the relationship between public goods and public policy?

If we take as our starting-point (with a few qualifiers and caveats thrown in) the notion that public goods are things of benefit to the public which cannot be bought in the marketplace, then the link with the EU's rural development policy becomes clear.

Matters such as the health and quality of the rural environment and the countryside, as well as the viability and vibrancy of rural areas, are clearly vital interests for society as a whole. Indeed, these things are not easily delivered through markets, and therefore policy must step in to fill the gap. Otherwise the supply of these public goods will be systematically low, and in some cases may dry up almost completely.

Clearly, then, rural development policy is a vital player in the delivery of public goods in rural areas - for example, through its role in providing incentives for environmental action, in

building up important physical and human capital, and in mobilising the talents and energy of local people.

This brochure fleshes out these and other related issues. Building on work carried out by the 'Public Goods' Thematic Working Group of the European Network for Rural Development, it seeks to get to the heart of questions about how rural development policy can serve the public interest in the countryside.

Despite the variety in their backgrounds - which ranged from national and regional public authorities to farm associations, environmental groups and scientific bodies - the experts involved found solid common ground as they sought to explain for what purpose, through what mechanisms and through what governance structures rural development policy effectively delivers in terms of sustainable farming, sound management of natural resources and landscapes, and viable rural areas.

This work has been highly encouraging and will certainly inform the ongoing development of rural development policy, the preparation and implementation of the next generation of programmes and the assessment of policy outcomes.



## Loretta Dormal-Marino

Deputy Director-General, European Commission,  
DG Agriculture and Rural Development



*Why is it necessary to develop policies involving a substantial budget for farming, forestry, rural development, and land management in Europe? What does society hope to gain from such interventions? Increasingly it is recognised that the ultimate objective is to secure the provision of public goods. This brochure sets out to explain the concept of public goods and their relevance to European policy in the fields of agriculture and rural development.*

## 1 / What are public goods?

The term 'public goods' was developed in the economic literature. It applies to a range of goods, services and other matters of societal interest that are not delivered through the market, i.e. the normal interplay of supply and demand. Markets have been shown to be the most effective mechanism for balancing supply and demand for the provision of private goods and services, such as food and drink. However, there are other goods and services that society values and would like to secure, but which are not possible to deliver through the market. These are known in the economic literature as public goods and include environmental goods such as biodiversity or cultural landscapes.

Public goods are defined as having two main characteristics. First, they are 'non-rival' which means that if the good is consumed by one person, it does not reduce the benefit available to others. Second, they are 'non-excludable', meaning that if the good is available to one person, other people cannot be excluded from enjoying its benefits.

Markets do not function properly for public goods because their characteristics mean that there is no clear incentive for individuals to pay for them. Equally there is little incentive for anyone to provide them, as those who might engage in doing so would not be rewarded. This means that public goods run the risk of under-supply.

As a result, where there is a demand from society for a particular public good which is not provided in sufficient quantity, then public intervention in the form of policies is needed to secure a desirable level of provision in line with these demands. Where the market does not function to meet demand, public policy is needed instead to incentivise the necessary action. This requires either the setting of clear standards as a baseline for admissible action or, in many cases, committing public funds to incentivise supply.

## 2 / The main public goods provided by agriculture

Agriculture in Europe is not only responsible for the supply of food and raw materials but occupies about 40 per cent of the land area. Consequently it has a powerful influence on the state of the rural environment and the opportunities for its enjoyment. There is scarcely any true wilderness in Europe so the quality of the environment depends heavily on the ways in which the land is managed.

### **Farmland biodiversity:**

Historically, many wild plants and animals have coexisted alongside food production. However, as agriculture has intensified, today farmland biodiversity depends heavily on areas of low-intensity management, or on unfarmed features around the farm, such as uncultivated strips between crops, walls or hedges, farm tracks, ditches and ponds. These places provide food, shelter and breeding sites for birds, mammals and insects and the conditions for native flowers and other plants to grow. Farmland biodiversity also includes the rich genetic diversity of local breeds of farm animals and varieties of crops, many of them highly adapted to the soils, vegetation and climate of their region.

### **Water quality and availability:**

The use of fertilisers, herbicides and pesticides to enhance agricultural production are commonplace, but can have a major impact on the quality of both surface and groundwater. Finding ways of reducing the amount of nitrates, phosphates and agro-chemicals that end up in rivers and aquifers, protects drinking water sources and contributes to the biodiversity of rivers and wetlands. As agriculture is a major user of water, especially for the irrigation of high value crops, fruit and vegetables in the drier parts of Europe, it is at the centre of efforts to ensure more efficient and sustainable water use, helping to safeguard supplies for everyone.

### **Soil functionality:**

Soil is the basis of all food production. Well-functioning soil has good structure, sufficient organic matter, and is resilient to erosion by wind or water. Most agricultural practices impact upon soil functionality in some way, but soil functionality can be preserved through the use of appropriate farming methods.

### **Climate stability – increasing carbon storage and reducing greenhouse gas emissions:**

Removing some of the accumulated CO<sub>2</sub> from the atmosphere is important for stabilising the world's climate. Plants accumulate CO<sub>2</sub> very effectively, and farming methods which maintain permanent vegetation cover and return plant waste to the soil are a good way of 'mopping-up' carbon. In fact permanent grasslands store nearly as much carbon as forests. As well as improving storage of carbon, agriculture can also play an important role in reducing the emissions of greenhouse gases that are responsible for global warming – not only CO<sub>2</sub>, but also methane and nitrous oxide.

Agriculture and forestry are also important sources of employment and contribute to the character and social fabric of much of rural Europe. Agriculture in Europe, therefore, is essential for the provision of a whole range of public goods. Indeed, many aspects of the countryside that people value most, and which they expect rural areas to provide are public goods, for example farmland birds, wildflowers or beautiful landscapes. In addition to biodiversity and landscape, agriculture can also help to provide other environmental public goods that Europe's citizens value highly, such as high quality air, soil and water

### **Resilience to flooding and fire:**

In central and southern Member States in particular, well-grazed vegetation can be an important barrier to the spread of forest fires, and reduce the fire risk in permanent crops such as olive groves. The capacity of farmland to absorb excess rainfall and store floodwater will be increasingly important as climate change increases the risk of flooding in urban areas.

### **Agricultural landscapes:**

Farming has shaped the distinctive rural landscapes of Europe for thousands of years and continues to do so. These range from alpine pastures to terraced landscapes, to dehesas, orchards and flood plains to mosaic landscapes of mixed arable and grass fields. Many cherished patterns of land use and locally distinctive landscape features are no longer essential to modern farming methods, but still need management if these kinds of cultural landscapes are to be maintained. Protecting the diversity of agricultural landscapes plays a key role in safeguarding the attractiveness of rural areas as a place to live in or for tourism.

### **Rural vitality:**

Rural areas in the EU-27 exhibit huge differences in land use, population, prosperity, language, cultural heritage and traditions. Rural vitality involves having the job opportunities, minimum level of services and infrastructure as well as human capacity and good social networks to sustain and promote these values in order to ensure the long-term viability and attractiveness of rural areas as places to live, work and visit. The land, the character of the surrounding landscape, climate and other natural factors all serve to shape the customs, traditions and identity of rural areas. Agriculture can help to sustain rural vitality through the role that the farming population and associated rural activities and traditions play in rural areas. Linkages work both ways. Where rural areas remain economically and socially vibrant, this can also help to support the continuation of economic activities such as agriculture and forestry, which in turn are important in providing environmental public goods upon which many sectors – such as rural tourism and recreation – depend.

### **Food security:**

While food is a private good, it is also true that markets do not ensure the availability of food at any time in any place. Deliberate action is needed, therefore, to secure food supply in the long term at the European or global level. Retaining the capacity to produce food sustainably into the future through appropriate husbandry of land and other resources and the maintenance of the necessary skills, is critical for achieving this.

and a stable climate as well as improving the resilience of the land to natural disasters such as fire and flooding. Agriculture also plays an essential role in delivering other public goods, including food security and rural vitality, particularly the economic, social, and cultural contributions it brings to rural life and the wider rural economy.



The fact that agricultural land is used for a range of different purposes, including the production of private goods such as food, fibre and fuel as well as the provision of public goods, means that these different interests compete for productive resources such as land and labour. Whereas the market largely determines the allocation of these resources for private goods, with farmers responding to price signals, this is not the case for public goods.

Instead, in order to achieve an appropriate level of public good provision, some form of policy intervention is needed to create an economic incentive to farmers to manage their land and other resources in a way that provides public goods. Often this will require a different form of management than would have been undertaken in response to the farmer's own economic interest – for example limiting livestock numbers, or carrying out more labour intensive management activities.



© T. Hudson

### 3 / Farming practices that deliver public goods

All types of farming can provide public goods if the land is managed appropriately. However there are significant differences in the type and amount of public goods that can be provided by different types of farms and farming systems in Europe.

Extensively managed livestock farms, mixed systems with both livestock and crops, permanent crops with more traditional management and organic farms tend to deliver the greatest range of public goods. This is because they tend to be managed using lower levels of fertiliser and pesticides or with lower livestock densities, contain a high proportion of semi-natural vegetation and landscape features, and the farmed area is often intermixed with a diversity of different types of land cover such as scrub or woodland.

However, more productive types of farming can also provide public goods, for example through the use of new technologies to improve soil and water management and to reduce greenhouse gas emissions or through the introduction of farming practices that support biodiversity in more intensive agricultural landscapes.

A whole range of aspects of farm management have an impact on the delivery of environmental public goods, including:

- the pattern of cropping and stocking, intensity of land management and specific farming practices;
- the structural features of a farm, including field size and farm scale; and
- the management of water courses, natural features, groundwater resources and forests, not only on the farm itself but also as part of the wider landscape.

In terms of day-to-day farm management activities, there is a whole range of farming practices that can help provide public goods. These can be divided into two broad types.

Firstly there are those **practices which are inherently better for the environment overall**, for example practices that use minimal tillage, low levels of inputs and retain semi-natural vegetation, as well as the use of technologies that improve the efficient use of resources such as precision farming techniques or drip irrigation. Secondly there are those **practices that address matters of a specific environmental interest**, for example creating buffer strips of natural vegetation around ploughed fields, leaving small areas unsown in arable fields to encourage nesting skylarks (*Alaudia arvensis*) or leaving areas of semi-natural habitats unfarmed to provide habitat for wildlife to flourish.

Many of these management practices provide several environmental public goods simultaneously. Some of the most widely beneficial practices include:

- Maintaining field boundaries such as hedges, terraces or stone walls as important elements of the landscape, but which also provide habitats for wildlife, can help prevent

soil erosion and can help control natural events such as flooding and landslides.

- Extensive grazing practices, including maintaining transhumance practices and regular herding of cattle or sheep onto fresh pastures to avoid under-grazing or over-grazing. Extensive grazing creates important components of many agricultural landscapes, is associated with high levels of biodiversity and permanent pasture performs an important role in storing carbon.
- Rotating crops, including incorporating a proportion of fallow land, green cover and/or overwintered stubbles within the crop rotation, which provide important habitats and food for mammals, birds and insects as well as helping to maintain soil fertility by minimising the loss of nutrients.
- Maintaining flood and water meadows, which provide excellent habitats for wildlife, maintain the fertility of the soil, as well as helping to prevent flooding in downstream urban areas.



## 4 / Why we need incentives for the provision of public goods

In the past, many public goods were produced hand-in-hand with agricultural production. However, as a result of market developments and technological innovation, land use has shifted towards more intensive forms. This was accompanied, on the one hand, by impressive productivity gains on land in the most competitive areas and, on the other, with the marginalisation or abandonment of land use in less competitive areas. As a result of both processes, we observe continued declines in many species and habitats, increasing water scarcity, significant problems with soil erosion and soil organic matter. Furthermore, structural change has caused the continued exodus of people from rural areas to towns and cities in many parts of Europe. Even despite some regional improvements, for example in relation to air quality and greenhouse gas emissions from agriculture, there is still a long way to go to meet our European targets for climate change and biodiversity. Reasons for this undersupply of public goods include the consequences of abandonment of farmland, when it is no longer economically viable; the intensification and concentration of land use, driven by market forces; and declining and aging rural populations as a result of rural unemployment and lack of rural services and infrastructure.

To achieve the desired level of public goods therefore requires policy action. However, not all the relevant activities by farmers and land managers require using public money. In line with the Polluter Pays Principle, no compensation would be provided to land managers for complying with legislative requirements or other binding standards - they must absorb these costs themselves. Only where action is needed that goes beyond that required in the legislative baseline, are financial incentives needed to encourage land management practices and other investments that would otherwise not make economic sense to the farmer. Policies that offer incentives need a clear baseline for establishing where payment is required.

## 5 / The use of Rural Development policy to encourage the provision of public goods

Rural development policy, as part of the Common Agricultural Policy (CAP), offers a range of measures to support the types of farming systems, management practices and other investments needed for the provision of public goods, both environmental and social, in a deliberate and targeted way. Many of these measures support both environmental public goods and social public goods (rural vitality) at the same time, either directly or indirectly. This is not surprising as vibrant rural communities, economically viable agricultural systems and sustainable environmental management of farmland are all inter-dependent.



## The strategic priorities for Rural Development policy for 2007-13

The main strategic priorities into which all national and regional Rural Development Programmes (RDPs) are divided are:

- Improving the competitiveness of agriculture and forestry through training and advisory services, modernisation and innovation in agriculture, and developing high-quality food chains.
- To protect and enhance the environment and countryside, with particular emphasis on three priority areas: biodiversity and the preservation and development of high nature value farming and forestry systems and traditional agricultural landscapes; water; and climate change.
- Improving the quality of life in rural areas and encouraging diversification, by the creation of employment opportunities and conditions for growth and promoting training, information and entrepreneurship to encourage rural vitality.
- Building local capacity so that rural communities are able to determine their local needs and then take responsibility for developing and implementing the solutions themselves (the Leader approach).

Member States and regions have the flexibility to choose which measures to use and how they should be targeted and implemented to reflect local needs, within a framework of strategic priorities set at the EU level.

However, rural development policy does not operate in isolation. Using rural development measures to incentivise land management to provide public goods requires the continued presence of land managers throughout all parts of Europe. Direct payments to farmers under Pillar One of the CAP help to achieve this, given that these payments are critical for the economic viability of farms. In addition, the requirements for all land managers receiving these payments to keep their land in Good Agricultural and Environmental Condition (GAEC) helps ensure a basic level of environmental management on farms forming a foundation on which more targeted incentives under rural development policy can build.

Rural development measures used to encourage the provision of public goods fall into three broad categories:

- area-based payments incentivising land management practices that benefit soils, water quality, habitats and species as well as the maintenance of the landscape;
- capital investments that can be used, for example, to provide assistance with the costs of introducing environmentally sustainable technologies and infrastructure on farms as well as to support the creation of new business opportunities, services and other activities in rural areas more generally, such as maintaining and promoting the natural heritage, supporting farm diversification, or tourism activities;
- investments in advice and training for land managers, as well as capacity building for people in rural communities.

The most significant measures used for the provision of environmental public goods and rural vitality are listed in Table 1.

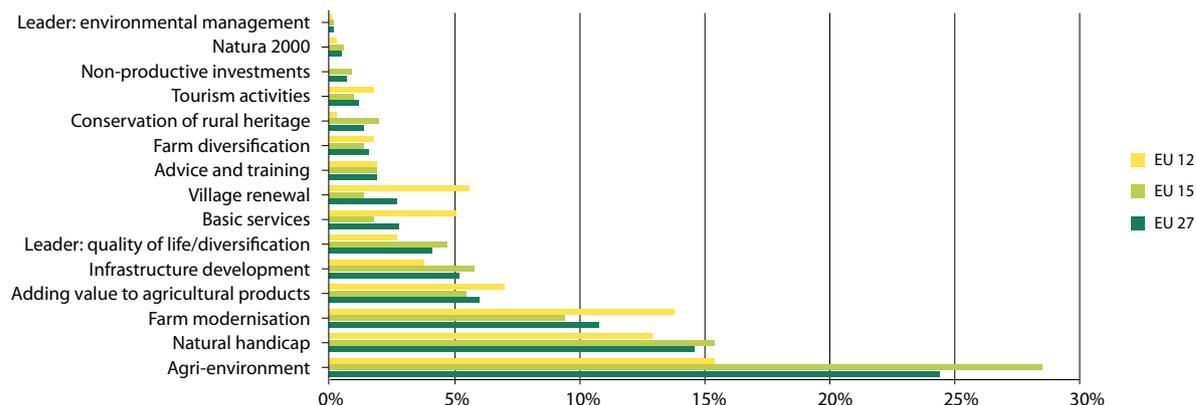
**Table 1: Rural Development Programme measures and the public goods they provide.**

	Type of Support	Rural Development Measures
ENVIRONMENTAL PUBLIC GOODS	• Area-based land management payments	<ul style="list-style-type: none"> <li>• Agri-Environment Measure</li> <li>• Natural Handicap Measures</li> <li>• Natura 2000 Measure</li> </ul>
	• Capital investment in physical infrastructure	<ul style="list-style-type: none"> <li>• Non-Productive Investments</li> <li>• Farm Modernisation</li> <li>• Infrastructure Development</li> <li>• Semi-Subsistence Farming</li> <li>• Conservation and Upgrading of the Rural Heritage</li> <li>• Adding Value to Agricultural Products</li> <li>• Diversification</li> </ul>
	• Advice, training and capacity building to improve human capital	<ul style="list-style-type: none"> <li>• Advice and Training Measures</li> </ul>
SOCIAL PUBLIC GOODS	• Area-based land management payments	<ul style="list-style-type: none"> <li>• Natural Handicap Measures</li> <li>• Agri-Environment Measure</li> </ul>
	• Capital investment in physical infrastructure	<ul style="list-style-type: none"> <li>• Infrastructure Development</li> <li>• Semi-Subsistence Farming</li> <li>• Farm Diversification</li> <li>• Encouragement of Tourism Activities</li> <li>• Basic Services for the Economy and Rural Population</li> <li>• Village Renewal</li> <li>• Leader Approach</li> </ul>
	• Advice, training and capacity building to improve human capital	<ul style="list-style-type: none"> <li>• Training and Information</li> <li>• Leader Approach</li> </ul>

The proportion of rural development expenditure allocated to these key measures in the EU-27 countries is shown in Figure 1.

Almost half the total rural development budget is allocated to just 3 measures: the **agri-environment** measure, the **natural handicap** measures, and the **farm modernisation** measure.

**Figure 1: The proportion of Rural Development Programme expenditure for the period 2007-13, per measure, for the EU-15, EU-12 and EU-27**



## 5.1 / Supporting land management practices that provide public goods

There are three main rural development measures that can help to encourage the provision of public goods by supporting certain types of land management practices, either directly or indirectly – the agri-environment measure, the natural handicap measures and the Natura 2000 measure. The focus of these area-based measures tends to be primarily on maintaining and enhancing farmland biodiversity and agricultural landscapes, although increasingly the land management practices that are supported under the agri-environment measure also prioritise improvements to water quality, soil functionality and carbon storage. In addition, by encouraging the continued management of agricultural land, they contribute indirectly to rural vitality.

By far the most important measure used to incentivise environmentally sound farming practices is the **agri-environment measure**. Farmers voluntarily enter into multi-annual agri-environment contracts on the basis of which they receive a payment for committing to carry out agreed environmental management on their land. All Member States are required to use this measure and it accounts for almost a quarter of total rural development expenditure. It is one of the most flexible Rural Development Programme (RDP) measures, and payments can be closely tailored to local environmental priorities and farming systems. The wide range of management activities supported and public goods provided by the agri-environment measure is illustrated in Table 2.

In addition, the **natural handicap** measures make an indirect contribution to the provision of environmental public goods, by providing support to farms that experience difficult natural

conditions, bolstering farm incomes in order to encourage continued land management and rural vitality often in less populated areas. In many places, these measures support extensive grazing and arable farming systems in areas with adverse natural conditions such as mountains or remote areas, where ensuring the maintenance of the farmed landscape is a priority. Farmers can apply for more targeted RDP measures, such as agri-environment payments, in addition to the natural handicap measures. Thus RDP measures can be combined in flexible ways to suit the situation of specific areas and of individual farmers.

Natura 2000 is the European Union's network of protected areas, covering about 11% of Europe's territory, much of which can be considered high nature value farmland of one kind or another. In many Natura 2000 areas land managers face certain restrictions and/or are required to undertake particular forms of management, as a means of protecting or restoring the important habitats and species that exist on the site. The **Natura 2000** measure can be used to compensate farmers for these area-specific constraints and any obligatory management that is required.

The delivery of environmental public goods via rural development policy can also generate useful social and economic benefits for agricultural areas and rural communities. Such contributions to rural vitality arise directly as a result of payments for the provision of environmental public goods or indirectly as a result of the very existence of attractive landscapes, farmland biodiversity or historical features. They may include improved employment opportunities both on and off the farm; opportunities for adding value to farm produce; maintenance of traditional agricultural skills and other rural traditions; new investment attracted to the locality; and last but not least, reduced migration away from rural areas, especially of younger people.



**Table 2: Actions supported by the Agri-environment measure and the public goods they provide**

Supported Actions According to Frequency of Use by Member States	Farmland Biodiversity	Water Quality and Availability	Soil Functionality	Climate Stability: Carbon Storage	Climate Stability: Greenhouse Gas Emissions	Air Quality	Resilience to Flooding and Fire	Agricultural Landscapes	Rural Vitality	Food Security
Maintain organic farming practices	★	★	★	★				★	★	
Introduce organic farming practices	★	★	★	★				★	★	
Use of local/rare breeds of livestock	★							★	★	★
Maintain or introduce extensive grazing practices	★	★	★	★			★	★		★
Maintain and manage natural features	★	★	★	★			★	★	★	
Cultivation of traditional/endangered crop types	★		★					★	★	★
Maintain or introduce extensive arable management	★	★	★	★				★		
Establish buffer strips/field margins against field edges	★	★	★	★				★		
Management of wetlands/river meadows	★	★	★	★			★	★		
Maintain and manage traditional orchards	★		★	★				★	★	★
Maintain built features	★		★					★	★	
Establish buffer strips next to water courses	★	★	★	★	★		★	★		
Develop nutrient management plans	★	★	★		★	★				★
Reversion of arable land to grassland	★	★	★	★	★		★	★		
Protect and maintain water courses in good ecological status	★	★	★				★	★		★
Develop soil management plans	★	★	★	★	★					★
Create wetlands	★	★		★			★	★		
Develop whole farm environment management plans	★	★	★	★	★			★	★	★
Establish no spray zones within arable fields	★	★	★			★				

## 5.2 / Investing in rural areas

Several rural development policy measures that provide support for investments in capital infrastructure both on farms and in the wider rural economy have the potential to provide a range of public goods, both environmental and social.

In relation to the agricultural sector, investments in environmentally sustainable technologies and infrastructure on farms can bring about improvements to water quality, soil functionality, water availability and reductions in greenhouse gas emissions, while also contributing to rural vitality, either through helping to improve the competitiveness of farms or by providing opportunities for diversification, driving new economic opportunities in rural areas. Amongst the measures that can be used for these purposes, **farm modernisation** is the most significant in budget share (14% in the New Member States, 9% in EU-15). Table 3 illustrates how this measure can contribute to providing environmental public goods as well as rural vitality.

Other measures include the **infrastructure development** measure which can be used to invest in irrigation technology and collective investments in the construction, upgrading, restoration and modernisation of water storage and supply facilities, principally benefitting water availability, by providing opportunities to reduce agricultural water use. This is complemented by the **adding value to agricultural products** measure which can be used to invest in energy-saving technology as well as the infrastructure needed to generate renewable energy.

The **semi-subsistence farms** measure offers aid to improve the competitiveness and commercial viability of semi-subsistence farms and in many cases helps to sustain farms of high nature value. As such it can contribute to the provision of both environmental public goods, as well as rural vitality.

Rural vitality can be assisted by support for a variety of investments including, the creation of new business opportunities, services and other activities, such as maintaining and promoting the natural heritage, supporting farm diversification and tourism activities. Social and economic vibrancy in rural communities is in turn key to the continuation of farming practices, particularly in many more remote parts of the EU, and hence the continued provision of environmental public goods. Promoting cultural diversity and identity, agricultural diversity, local food identity and biodiversity are often mutually supporting, not only strengthening the basis for economic activities but also attracting people and businesses to rural areas. Measures for investment in **basic rural services** and **village renewal** are the most widely used measures for this purpose, for example they assist investments in water treatment services; renewable energy generation; improved roads and other transport links to give rural communities better access to markets. They also support cultural and leisure activities that help to build and maintain the spirit and identity of communities. Other measures that can be used to support rural vitality include the measure for **investment in tourism activities** and the **conservation and upgrading of rural heritage** measure which can support the preparation of management plans for Natura 2000 sites, the restoration of agricultural landscapes, cultural features, and traditional buildings.

**Table 3: Actions supported by the Farm modernisation measure and the public goods they provide**

Investments Supported According to Frequency of Use in Member States	Social Public Good Provided	Environmental Public Good Provided
Improvements to new livestock housing and/or handling facilities	Rural Vitality, Viability of Long-Term Management of Farmed Landscape , Food Security	Air Quality, Water Quality, Soil Functionality
Investment in more efficient, environmentally sustainable technology	Rural Vitality, Viability of Long-Term Management of Farmed Landscape , Food Security	Air Quality, Water Quality / Availability, Soil Functionality, Climate Stability (GHG Emissions)
Improvements in manure handling/processing/ storage equipment	Viability of Long-Term Management of Farmed Landscape , Food Security	Water Quality, Air Quality, Farm Animal Welfare, Soil Functionality, Climate Stability (GHG Emissions)
Improved irrigation systems / technology	Rural Vitality, Viability of Long-Term Management of Farmed Landscape , Food Security	Water Availability, Water Quality, Soil Functionality
Establishment of energy crops	Rural Vitality	Climate Stability (GHG emissions), Air Quality



© T. Hudson

There is a range of measures within rural development policy that can be used to build capacity. This includes **advice** and **training** measures specifically aimed at building capacity in the farming community, for example training in environmental management techniques, and advice on sustainable use of resources, maintenance of water quality, soil functionality and farmland biodiversity. Issues such as improved farm animal welfare, increased water availability and the reduction of greenhouse gas emissions also feature prominently.

Linked to and supporting the range of other measures, there is a special type of measure, **Leader**. This is used in all Member States to stimulate rural vitality through funding 'bottom-up' local initiatives. The Leader approach promotes the establishment of Local Action Groups which include local community organisations, non-government organisations and local authorities. It provides the Local Action Groups with a budget for investment in local projects of community interest. Key to the success of the Leader approach is that the Local Action Groups themselves are responsible for designing their local strategies, and for deciding how the budget is spent. In many situations, the Leader approach has been an effective catalyst in revitalising local communities.

### 5.3 / Building capacity

Building capacity involves developing the skills and knowledge of land managers and rural communities more generally. Beyond this it aims to stimulate and consolidate well-functioning social networks and active community engagement. This is critical to ensuring the long term involvement of rural actors in the provision of public goods, both environmental and social. Indeed building capacity is central to underpinning the sustainability of rural communities and can be very helpful in engendering longer term behavioural change.



## 6 / Key points for success

While it is clear that a wide range of measures have the potential to encourage the provision of both environmental and social public goods through agriculture and other rural activities, whether or not they do so in practice depends on a number of factors.

Some of these relate to the selection of measures to be used within the rural development programmes to secure a range of objectives in response to local needs. Others relate to the design and targeting of measures, along with the adequacy of the budgetary resources allocated to them. These factors have a significant influence on the eventual outcome and on whether the potential of a measure to secure the delivery of public goods is realised in practice.

With respect to the implementation of programmes and schemes, the degree of administrative and technical capacity within national administrations, extension services, research bodies and paying agencies, along with the provision of well considered advice and training for farmers also has a significant effect on public goods outcomes.

Effective monitoring and evaluation are critical to assess outcomes and to inform improvements in both measure and scheme design. Appropriate engagement with farming organisations can help to establish well designed programmes and to elicit a sense of co-operative effort. Finally, the successful delivery of public goods can be reinforced and enhanced if there are tangible effects on the local economy and vitality of rural areas which can be seen and recognised.

## 7 / Conclusion

The greater awareness and understanding of the environmental and social importance of agriculture in Europe has led to an evolution of the role of the CAP. The focus has shifted from the supply of agricultural commodities to the broader role of supporting the **provision of a wide range of environmental and social public goods**. In this way the CAP has changed in response to European citizens' long term demands and needs.

However, if these more complex and varied objectives are to be achieved, there is a need to ensure that the substantial group of policy instruments in place to support their delivery are as effective and efficient as possible. Looking ahead, new challenges facing the delivery of public goods are likely to emerge, as European policy targets become more ambitious and rural areas continue to be affected by changing economic and social conditions. The design and development of agricultural and rural development policies will need to recognise these changing circumstances.



## 8 / Case studies

### 8.1 / Providing public goods through agriculture



© Y. Desjeux

#### Auvergne, France

The attractive mountain landscapes of the Auvergne owe much of their beauty and biodiversity to the region's livestock farmers. Extensive sheep and dairy farming, supported by direct payments, natural handicap payments, and agri-environment agreements, delivers both environmental and social public goods. There is a strong commitment to the value of these herbage-based farming systems, with 20% of farms and 40% of local food processors producing under a quality label. Visitors are invited to follow a "Cheese Route". The benefits from higher prices for quality local produce and from tourism are shared by the farmers and the local communities.

#### Southern Transylvania, Romania

Almost a third of the people here work on farms, keeping a few cattle, sheep or goats on small-holdings of less than 5 hectares. This is one of the few surviving traditional pastoral systems in Europe, where shepherds move the animals to communal summer grazings, while hay for the winter is made on flower-rich home pastures. The extremely low levels of inputs

(reliance on farm yard manure, no fertilisers or pesticides) and low grazing pressure, the subtle variations in grassland management (each village has around 1,000 different hay meadow parcels) and the semi-natural vegetation make this an exceptionally high nature value farming system. The wealth of public goods this provides will soon be lost forever if serious threats to the farming system are not countered. These are marginalisation, declining livestock numbers and loss of markets. Agri-environment and natural handicap payments are already helping to safeguard the management of high nature value grasslands using traditional farming practices. Local initiatives have had benefits, for example through adding value to food, especially at farmers markets, and diversification into rural tourism. But continued policy attention is needed, especially in view of the large number of very small farmers.



© R. Barbu

#### The Allerton Estate, England (UK)

The Allerton estate is a 333 hectare mixed arable and livestock farm on some of the England's most productive soils where the provision of public goods is a core objective of farm operations alongside food production. In 1992 the 'Allerton Project' was set up on the estate to research the effects of farming on wildlife and the environment.

The site is managed as a modern farm enterprise by the Game and Wildlife Conservancy Trust (GWCT) and maintaining profits is a key objective. A number of research projects are undertaken and well as training and demonstration programmes that look

at how productive agriculture and environmental benefits can be provided alongside one another, while at the same time providing jobs for the local community. The arable part of the farm is managed using a minimum tillage approach to reduce the impacts on soil erosion and pesticide and fertiliser run-off. Another project is looking at the development of practical means of reducing the impact of farming on water quality that are compatible with the requirements of farmers. Other aspects of research involve creating a flower and grass seed mix that is cost effective but supports a wide diversity of pollinating insects and beneficial predators.

A particularly successful project has looked at ways of reversing the decline of the grey partridge (*Perdix perdix*). It was found that the introduction of a few simple structural elements into the cropped area, such as beetle banks, hedgerows and grass strips along the edges of fields have provided the habitat needed for the insects that the chicks feed on in the summer months. This has led to an increase in autumn densities of grey partridge from 1.2 to 64 birds per 100 hectares in only five years. Modernisation on the farm has also reduced the number of machines needed, thereby reducing costs. However the labour force has been maintained to help with other farm operations as well as conservation management in the agricultural area, in woodland and other non-cropped habitats.

## 8.2 / Wider benefits for the rural economy and local communities: rural vitality

### Agri-environment payments create local jobs

On a remote, 1,400 hectare 'Less Favoured Area' livestock farm in the North West of England, a farmer entered a variety of agri-environment schemes. In addition to changes to his farming system (reducing the number of sheep, and moving them off the moorland more often), he also opted for payments for dry-stone walls, hedgerows, woodland restoration, in-field trees, traditional farm buildings and the management of archaeological features on grassland, and the reseeded of depleted moorland habitat. The farmer uses a local contractor for the moorland restoration, which is technically challenging and requires specialist

equipment. For every €1 of scheme payment, €3.70 ends up in the local economy. This has helped the business to develop expertise and created at least 10 new jobs in the local area. This illustrates the growing market for contractors specialising in landscape and habitat restoration work.



© T. Hudson

### Farmland biodiversity generates income from tourism

Several agri-environment schemes in the UK compensate farmers for damage caused to grazing land and crops by over-wintering wild geese. Although the payments have little or no effect on direct or indirect farm employment, the presence of the geese can attract visitors. Research in Scotland in 1998 estimated that these visitors spent a total of €6.5 million per year in local economies around goose sites, providing an injection of spending into the Scottish economy. Of this total, approximately €4.4 million can be attributed to the presence of the geese, supporting more than 100 local jobs.



© T. Hudson

# The European Network for Rural Development ONLINE

<http://enrd.ec.europa.eu/>

**European Network for Rural Development**

The European Network for Rural Development (ENRD) contributes to the efficient implementation of Rural Development Programmes throughout the European Union (EU). Each Member State has established a National Rural Network (NRR) which brings together the institutions and administrations involved in rural development. At EU level, the European Network for Rural Development ensures the networking of these national networks, organisations and administrators. [Read more about the ENRD](#)

**EN RD news**

**REGISTRATION:** Registrations open for "Smart-subsistence farming" seminar in Nîmes  
The open call for the registration for the "Smart-subsistence farming" seminar in Nîmes, France has been launched. The seminar, which will be organised due to tight constraints in April, will now be held on the 19-20 October. [Click here](#) for further information.

**19th August 2010:** Issue 3 of Rural Review now available in 8 languages  
Issue 3 of EU Rural Review – which examines diversity in Europe's countryside, is now available in the following languages: English, German, French, Spanish, Italian, Polish, [Click here](#)

**16th August 2010:** ENRD News Issue 9 now available in 8 languages  
The 9th issue of the ENRD newsletter (ENRD News) is available for download in the following languages: English, German, French, Spanish, Italian, Polish. The newsletter contains updated information on rural development policy and EN RD activities. [Click here](#)

**16th July 2010:** LAGs invited to attend Rural Cooperation Fair  
The Scottish NRR is delighted to invite Local Action Groups (LAGs) to attend the ENRD supported EU Rural Cooperation Fair, taking place in Edinburgh on 23-24 September 2010. However, LAGs are advised that places are limited and they must book directly with their respective NRR in their region. [Click here](#) for further information.

**29th July 2010:** Thematic Working Group 4 meets in Brussels  
The second meeting of the ENRD Thematic Working Group 4 (TWG4) took place in Brussels on July 27th. Four TWG4 case studies, relating to the present analysis of the reform implications of EU rural development policy were presented. For further information [click here](#).

**22nd July 2010:** Rural Development Day at Limerick Fair  
A Rural Development Day, organised by the ENRD Contact Point, took place on July 16th, as part of the Limerick Agricultural, Forestry and AgriFood Fair (22-28 July). The huge outdoor exhibition provided a showcase for all things 'rural'. For further information [click here](#).

**16th July 2010:** CAP post 2010 debate held in Brussels  
CG AGRI hosted the CAP post 2010 conference on the patio terrace in Brussels on 15-16 July. The ENRD Contact Point was in attendance to present the contributions to the debate from ENRD coordinators, including NRRs and other organisations. For further information [click here](#).

**15th July 2010:** Survey on LAGs dealing with farms  
The Walloon Farming Association (Chambre Wallonne) in Belgium is compiling a database of LAGs currently involved in the area of industrial farms. Contact the NRR of Wallonia for further info, or [click here](#) to complete the questionnaire.

[View ENRD news](#)

**EN RD News Statement**

**EN RD News Statement**

**CALENDAR**

**JOIN OUR MAILING LIST**

**EU PUBLIC DEBATE POST 2010**

**RURAL DEVELOPMENT PROGRAMME SUMMARIES**

**SPECIAL RURAL NETWORKS LITERARY**

**EU RURAL REVIEW**

**SEARCH COOPERATION GUIDE**

**LEADER COOPERATION OFFERS**



Publications Office

DOI 10.2762/21600

ISBN 978-92-79-17870-2



9 789279 178702