

EU Rural Review

N°7
EN

Spring 2011

The Magazine from the European Network for Rural Development



Public Goods and Rural Development



European Commission
Agriculture and Rural Development



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EU Rural Review is published in 6 official languages (EN, DE, FR, ES, IT, PL) and available in electronic format on the EN RD website
Manuscript finalised in March 2011. Original version is the English text.

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Foreword





The phrase 'public goods' has been gaining popularity in recent years, both within the EU and elsewhere. Nevertheless, at times, the term still seems to be surrounded by a faint aura of 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? This seventh edition of the EU Rural Review provides answers to these questions and also explores other issues surrounding the ongoing debate on 'public goods'.

'Public goods' are essentially things of benefit to the public which cannot be bought in the marketplace and for which there is no incentive to pay (i.e. through the normal interplay between supply and demand) but which are valued by society as a whole. Policies need to be in place to fill this gap.

The role of EU agriculture and rural development policies is clearly vital in the delivery of a wide range of public goods in rural areas throughout Europe. These include providing incentives to: promote environmental actions that ensure the health and quality of the rural environment and the countryside; sustain the

viability and vibrancy of rural areas; ensure food security through appropriate husbandry of land and other resources and maintaining the necessary skills in rural areas; protect farmland biodiversity including the rich genetic diversity of local breeds of farm animals and varieties of crops; and many other areas.

The European Commission communication "The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future" which outlines options for the future CAP, expressly considers an increased role for EU Agriculture and Rural policy to support the provision of 'public goods', emphasising that 'Agriculture and forestry play a key role in producing public goods, notably environmental [goods] such as landscapes, farmland biodiversity, climate stability and greater resilience to natural disasters such as flooding, drought and fire'.

This seventh edition of the EU Rural Review therefore takes a closer look at how EU agriculture and rural development policies are promoting the provision of public goods in practice. We investigate progress being made in this area, explore the contributions made by the Member State Rural Development

Programmes (RDs) and consider possible implications for current and future rural policy.

Following a detailed introduction to the concept of 'public goods' in agriculture, this edition focuses on three major aspects of the linkage between rural development policy and the provision of public goods, namely:

- The importance of sustainable farming systems for the provision of environmental public goods;
- The role of forestry;
- The socio-economic and cultural value of public goods (i.e. rural vitality).

This edition also includes several case studies, which demonstrate successful projects and practical experiences of the provision of 'public goods' from Europe's countryside. They show how public goods play an important role in the long-term development of rural areas and sustainable socio-economic growth, as a result of the financial support provided by the current suite of RDP measures, either directly or indirectly.





European agriculture and public goods



The Agriculture sector is uniquely placed to supply a range of public goods which are highly valued in European societies. The pursuit of public goods, such as climate stability, the sustainable management of natural resources, and the preservation of biodiversity and valued landscapes should be a key objective of public intervention and an intrinsic part of EU policy targeted at agriculture and rural development under the Common Agricultural Policy (CAP).

As the debate on the future of the common agricultural and rural development policy got underway last year, the term 'public goods' has become increasingly popular. The term is used to describe goods, services and other matters that provide value to citizens which are not delivered through the market, and whose demand and supply is, therefore, not ensured by market forces. The term is borrowed from economic literature where it has considerable history and a very specific meaning. Although not yet familiar to everyone in the rural policy world, it is increasingly being employed as a way of explaining why there is need for public intervention and support in this area. This article explores what the term means and considers its implications on agriculture and rural policy generally.

It is frequently stated that the objectives of public goods is the ultimate purpose of public intervention, including measures addressed to agriculture and rural development under the CAP. Without appropriate governmental intervention, it cannot be expected that the demand for public goods will be met since, due to their very nature, these 'goods' cannot

be supplied through the market. This is in contrast to the supply of private goods, such as food and drink, which we consume ourselves, and can expect to acquire through the normal process of buying and selling in the market.

There are two very important characteristics defining the concept of public goods:

- Public goods are 'non-excludable' in the sense that, if the goods are available to one person, other people cannot be excluded from enjoying their benefits;
- They are also 'non-rival', meaning that one person's consumption does not reduce the amount available for others.

This can be illustrated by reference to a rural landscape, which has been shaped by agricultural management over a long period and is now valued for its cultural and aesthetic qualities, as well as the amenities it offers. The public cannot be excluded from appreciating and enjoying the landscape unless rather extreme measures are taken and it is entirely fenced off. Furthermore, one person's enjoyment of the landscape generally, does not diminish the enjoyment of others. Because of the fact it is 'public' it is not affected by continuous consumption.

These two characteristics of 'public goods', very much reflect the bio-physical character of the goods or services themselves. However, it is important to recognise that there are different degrees to which goods can be 'public', with some goods displaying both public and private characteristics.

In the case of rural landscapes, there is an element of private enjoyment and benefit by those owning and managing the land. Indeed they may have the option of excluding others from access to certain areas or using the landscape in particular ways. Rivalry in consumption also may occur if the landscape is popular and becomes congested, reducing individual opportunities and enjoyment and effectively introducing an element of rivalry.

The reasons for the failure of the market in these cases are not difficult to understand. The 'producers' of public goods have no incentive to supply them because they cannot obtain an economic return by doing so. Consumers on the other hand cannot be persuaded to pay for them because they already have access as 'free riders' and the supply is not

limited solely to them. Those who pay nothing can enjoy the benefits of provision as much as those who do pay, precisely because they cannot be excluded from 'consumption', so it is not possible to establish the price in a way that might occur in a normal market. Consequently, the market place does not provide a mechanism in which supply and demand can be balanced.

Thus, another approach is required. Intervention by governments, on behalf of the wider public interest, is necessary to ensure that those demands which are not met by the market can be addressed. Intervention may take different forms, including legislation, information and advice. In some cases, public expenditure to provide an incentive to the suppliers of the public good may be the

most appropriate way for governments to secure supply. This applies to public goods in the countryside as elsewhere and there are plenty of other examples of the State purchasing public goods. Just as we accept that a nation cannot rely for its defence on the operation of the market, the government needs to take the lead in determining the level of action required; once it is deemed affordable they should take appropriate action to preserve biodiversity, ensure the sustainable management of natural resources, or the provision of social public goods underpinning rural vitality.

Clearly there are limits to the possibilities in terms of appropriate response of governments to the variety of public demands for goods and services, not supplied by the market. The strength

of demand has to be established and choices must be made in the light of budgetary constraints. However, some demands may be supplied without cost. For example, frequently farmers will offer some public goods in the course of their routine operations, maintaining hedges to keep their livestock within fields but also enriching the landscape in the process. This incidental provision of public goods may not need to be paid for. However, where there is a conflict between the farmer's own economic interest and the public interest as regards certain 'goods', it is only to be expected that economic incentives should prevail. If the hedge is no longer needed for farming purposes, it may be removed. A risk then arises that there will be a shortfall in the supply of public goods. The lack of incentives to produce, manage or sustain various public goods in rural areas has, over time, strengthened the case for intervention by governments to redress the balance.

Agriculture and Public Goods

There are several reasons why agriculture has an important role in providing environmental public goods:

- European rural areas have unique landscapes, created by human endeavour over thousands of years. Moreover farm-specific habitats host a variety of wild species of birds and plants, and the need to manage land in a way that protects the environment and preserves natural resources, all render farming hugely beneficial as a supplier of public goods;
- In the long term, food security depends upon the preservation of natural resources and the capacity to produce food in sufficient quantities. Preserving these resources and managing the land accordingly is an important role of agriculture. The quality of life of people living in rural areas and rural vitality is also depending upon the preservation of their natural manmade environment and cultural heritage. Here again agriculture is recognised as having an important role to play.



Some, but not all, of these considerations also apply to woodlands and forests, which represent the second largest use of land in Europe and are of great environmental significance. For example, the benefits of forestry can extend to carbon sequestration, watershed management, biodiversity conservation, opportunities for recreation and, more broadly, human health.

It is not possible to provide an exhaustive list of public goods associated with agriculture in Europe but the main goods that are most widely recognised, both in literature and the current policy debate, can be summarised as follows:

- **Environmental:** including farmland biodiversity, agricultural landscapes, high water and air quality, water availability, the functionality of soils, climate stability and resilience to flooding and fire;
- **European food security:** in the sense of maintaining the long-term capacity to produce food, possibly on a larger scale in the future; this implies good husbandry of the necessary resources, including land, skills and essential infrastructure;
- **Rural vitality:** less easily defined but includes the essential social viability of communities in rural areas and the networks playing a role within it;

- **Farm animal health and welfare.** - ensuring the respect of certain standards in line with ethical considerations.

These public goods are distinctive but also linked. For example, good soil management contributes to both ecosystem stability and food security. Rural vitality can benefit from well managed agricultural landscapes and their associated recreational potential and this can also work in reverse, with attractive landscapes contributing to the economic potential of an area. However, conflicts may also arise. For example, a fall in numbers of beef cattle may reduce the emissions of methane in a region but lead to a decline in grazing pasture of high nature value (HNV).

Paying for Public Goods

The demand for public goods is expressed in different ways. Sometimes it is evident from observed behaviour, for instance when people visit areas of natural beauty or join rural clubs and NGOs. It is also channelled through the democratic process and translated into policies, laws and occasionally specific objectives, such as containing global warming below 2°C. In March 2010, the European Council confirmed the target

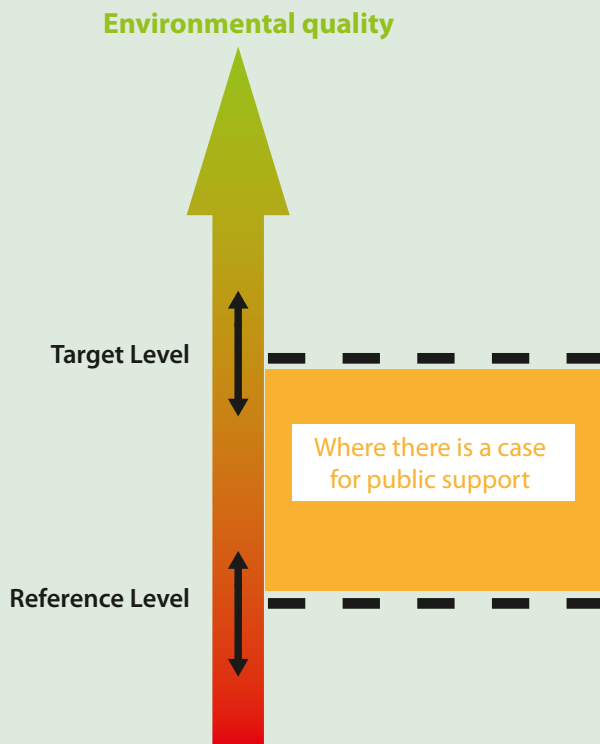
of halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020. This will only be possible if a significant effort is made in the agricultural sector.

Progress towards such targets can be made through the employing of a hierarchy of policy interventions. These may include binding rules or standards laid out in legislation, for example, when the use of a particular pesticide is restricted or banned. This creates an obligation on farmers, or others affected by the law, to take the necessary action and not to expect any payment for it. However, if farmers are to be encouraged to take further steps beyond this legal baseline or 'reference level' at their own expense, then they should expect to receive payment for it, which compensates for the associated costs incurred, as well as the income foregone. Such payments should be adjusted when the reference level changes.

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Figure 1 – Public support for public goods



Source: OECD

Figure 1 indicates the need for deploying public funds for encouraging farmers and land managers to provide environmental public goods beyond the level

of mandatory requirements, in order to reach the politically set target level. Below the 'reference level' society would expect farmers to bear the cost of observing

mandatory environmental requirements. Outcomes above the target level would be considered unnecessary or too costly.

Implications for the CAP

The provision of public goods is an important goal for both 'pillars' of the CAP. Direct payments under Pillar 1, which are critical for the economic viability of farms, are linked to the respect of requirements to keep the land in 'good agricultural and environmental conditions' (GAEC). This contributes to ensuring a basic level of environmental management on farms and to the continued presence of land managers as addressees of more targeted

incentives under Rural Development Policy (Pillar 2). Rural development policy offers a range of measures to support the provision of public goods and offers the flexibility to Member States to choose which measures to implement or target to reflect local needs, within a framework of strategic priorities set at EU level. EU policy should anticipate the level at which public goods will be required, the risks of undersupply and the consequent appropriate level of intervention. This is a more sophisticated exercise than simply

seeking a particular level of agricultural output. It is crucial to establish clear objectives and targets; policy instruments that are capable of delivering them; and appropriate monitoring and evaluation procedures. At this stage, securing the necessary resources to reach targets – and within an identified timeframe – needs to be achieved. This is central to the debate on current rural policy and may become even more significant in the discussion of the CAP beyond 2013.

PUBLIC GOODS AND PUBLIC INTERVENTION IN AGRICULTURE

ENRD Seminar, Brussels, 10 December 2010

At the end of a year in which the term “public goods” has attracted a lot of attention in agricultural policy circles, there was plenty of interest in discussing it further at a well-attended seminar in Brussels. More than a hundred participants from throughout the European Union attended an event that took stock of thinking on the concept of public goods and its policy applications, and examined a number of examples, case studies and concrete issues. With the debate on the future of the CAP and rural development policy gathering momentum, few questioned whether or not “public goods” was a term that was here to stay.

The seminar was organised by the European Network for Rural Development (ENRD) and presented the outcome of work by a Thematic Working Group (TWG) established in 2009. It was opened by Loretta Dormal-Marino, Deputy Director-General of DG Agriculture and Rural development. She remarked that use of the term public goods is no longer confined to the theoretical domain, but has found a place in a much wider public forum. There is considerable understanding of the point that public goods do not appear automatically, without any action being taken; rather public intervention is required. Indeed, the rationale for intervention in the CAP and elsewhere depends heavily on the supply of public goods. The precise link to rural development policy may not be apparent to everybody, but one of the aims of the seminar and other initiatives, such as the recently published brochure on the topic, was to spell out this relationship more clearly and examine its implications.

Definitions

Agricultural policy involves the disbursement of funds on a considerable scale, an increasing proportion of which are devoted to rural development. The justification for such expenditure needs to be clear, and the public goods arising from it must be identified and highlighted. Martin Scheele of DG AGRI, chairing the morning session, emphasised the significance of this for both the CAP and the farming community, since society wanted concrete benefits in return for the support provided from European and national sources.

Classically, pure public goods can be considered those that are both non-excludable and non-rival. In other words, if the good is provided to one person, others cannot be

excluded from the benefits which it confers, as is the case with national defence or open-access landscapes. Public goods are non-rival in the sense that if they are consumed by one individual, the amount available to others is not reduced and they are not prevented from enjoying the benefits of consumption themselves. This is in marked contrast to private goods, such as food and drink, which can be consumed only by one individual. These public “goods” are not all goods but also include a number of services; they are an important product of agricultural management. Many are not purely public and indeed goods can be placed along a “spectrum of publicness”. However, the critical point is that the market will not provide these goods and services; there is no incentive for farmers and other providers to supply them, unless this is arranged through public policy.

This analysis of public goods and the role of agriculture in providing them was widely accepted in the seminar. A lively debate developed about the questions of what qualifies as rural public goods and the policies required to generate them. They were issues which were raised by David Baldock, the Executive Director of the Institute for European Environmental Policy (IEEP) as part of his overall introduction to the concept of public goods and its importance. The list of environmental public goods includes climate stability, valued agricultural landscapes, biodiversity and high quality water, air and soils. These can be provided by different types of farming and land management in Europe, as was illustrated for less intensive High Nature Value (HNV) farmland in the Auvergne in France (presented by Kaley Hart, IEEP) and semi-subsistence pastoralism in Romania (presented by Mark Redman, ENRD) but also by more intensive forms of production, such as large scale mixed systems in the Czech Republic, as explained by Jaroslav Prazen of VUZE.

The role of policy measures

In all these cases the role of policy measures, particularly agri-environmental payments, was emphasised. The potential for targeting payments on particular issues and landscape types, to maximise effectiveness, was illustrated for the Czech Republic with a series of detailed maps. In the Auvergne, dairy and sheep farms are at the heart of public good provision and one of the themes to emerge was the functional relationships between the environment, high quality local food products and the maintenance of the cultural landscape. In central Romania the rich provision of landscape and biodiversity public goods is associated with a mixture of small semi-subsistence farms and communal

grazing. However, the socio-economic challenge must be seen alongside the environmental one. The alleviation of rural poverty is a priority for both local communities and rural development policy.

Public goods and rural vitality

The connection between environmental and social public goods was one of the main themes of the seminar. Specific social objectives related to agriculture and forestry, such as certain forms of employment, vary considerably within the regions of Europe, although there are common themes, such as the need for robust social networks, capacity building and the overall viability of rural populations and communities. These can be summarised as “rural vitality”, a public good that can be addressed directly through rural development policy in axes 3 and 4 for example, or indirectly through environmental measures. Kaley Hart gave some examples of this in a second presentation drawing on work in the UK and elsewhere. The Environmental Stewardship scheme in England has been credited with creating 665 full time equivalent jobs from 2005–2009, mostly for the direct employment of workers, contractors and advisers. Other social benefits of agri-environment measures may include the slowing down of out migration, improved tourism opportunities, the attraction of greater inward investment, some local income stabilisation, enhanced production of high quality food, and benefits for local cultural heritage.

Demetris Psaltopoulos of Patras University offered examples of different forms of rural vitality, assisted by rural development measures applied in France, Sweden, Austria, Greece and elsewhere. Aid for a local cheese factory in Gers in France aimed particularly to improve production of high quality cheese; boost sales to local consumers; improve agricultural income and farm succession; and strengthen animal welfare. However, there was also an emphasis on environmental sustainability, with the installation of photovoltaic panels and the encouragement of no-till farming techniques.

These presentations showed that well designed measures and programmes can capture both social and environmental public goods and address the trade-offs between them, when these arise. Measuring the outcomes precisely, can be challenging and this helps to explain the focus on employment creation in many of the examples given. Integrated programmes which combine measures from the rural development menu and address the needs of different stakeholders can be valuable in this regard. This theme was addressed by Francesco Mantino of INEA, Roma, whose presentation reflected on the identification of needs and the setting of appropriate SMART targets in rural development

programmes (RDPS). He suggested ways in which public goods could be incorporated more fully into the process of setting and using targets and indicators, emphasising the importance of governance issues, with examples drawn from Italy in particular. He suggested that the use of fewer indicators, but ones which were more finely tuned to the delivery of public goods, might be helpful. The debate on the precise definition of rural vitality is still evolving and more work in this area is required, as was confirmed by the afternoon debate.

Public goods and food security

The ENRD Thematic Working Group on public goods had given considerable thought to Food Security and concluded that the principal public good in this context, lay in retaining the capacity of the land, other resources and skills, to produce food into the future, rather than increasing EU food production in the short term. Although there were questions on this point, it was generally welcomed and the synergies between food security in this sense and good environmental management were highlighted. Allan Buckwell, representing the European Landowners’ Organisation went further, by emphasising the links between agriculture, public goods and the wider rural economy, pointing out the density of relationships at the farm level and at a series of higher tiers, including the European level. Further exploration of these linkages and the synergies and trade-offs incurred, was important. It might be difficult to arrive at an “equitable” policy solution when farmers of so many different types, sizes and preferences were delivering varied combinations of public and private goods. Should policy seek to accelerate or delay structural change for example?

Other issues in the debate about public goods and rural development

Some participants suggested that market mechanisms should be exploited to make a larger contribution to public good supply, especially if the price of agricultural products better reflected their impact on social and environmental outcomes. However, the discussion pointed towards clear limitations in this respect: whilst the market can reflect changing values and prices can be adjusted, the characteristics of the production process and the effects on the environment do not figure among the features which can be verified by the consumer. Therefore, public goods and services remain precisely those which by their essential character, will not be provided by normal operation of the market. Public interventions are required, to ensure transparency and credibility of product labels. Or course, there are certain possibilities to create conditions in which market characteristics can be mimicked to deliver incentives to suppliers, as occurs with emissions trading regimes,

and this may be an efficient form of delivery. But also in this case, target setting and control of compliance of operators with the limits reflected in their emission certificates would remain a matter of public policies. Thus, a market based solution should not be confused with "creating true markets".

Another line of debate focused on the specification of public goods. To what extent did they include restoration and the repair of damage and not merely maintenance of soil, landscape and other resources? Social choices are critical here, with the legal baselines of obligatory measures for land managers, known as the 'reference level', far from uniform within Europe. Where obligations are required by law, it is rarely acceptable for incentives to be provided through RDPs to meet those requirements.

Incentive measures have to be attractive for farmers, foresters and other providers, as several practitioners pointed out. This was not always the case and it was easy to underestimate transaction costs, for example. In Sweden, recently there has been a rising number of farmers choosing not to renew agri-environment agreements at the time of expiry, and in several countries the importance of excellent communication with farmers was emphasised. One point of contention for policy makers came up several times in the discussion. This was based on the discrepancy of fine-tuning and targeting of measures on the one hand, backed up by thorough monitoring to maximise the efficient provision of public goods; and the pursuit of simplification and low transaction costs for the benefit of both farmers and public administrations on the other hand. The question of whether key environmental public goods can be secured in relatively simple, purely annual measures in Pillar 1, without the advantages of rural development programming, has now been raised by the Commission's November Communication on the future of the CAP. There appeared to be a broad consensus that whatever could be achieved by simpler measures, a more sophisticated and holistic approach, within a programming framework, would be required alongside them. Different ways of addressing transaction costs would be required for example, promoting collective, landscape scale measures, in the place of individual farm agreements in some agri-environment schemes.

Policy effectiveness was one of the leading themes in the panel debate with the participation of four invited stakeholders in the afternoon (Ariel Brunner; Udo Hemmerling; Xavier Delmon; and Stephen Trow). There were discussions about avoiding 'deadweight' (paying beneficiaries for action that they would have undertaken anyway); appropriate "bundling" of interventions to avoid possible silo effects of a focus on single measures; capturing outcomes rather than outputs in monitoring

design; measuring social public goods more precisely; and the role of cross compliance. It was pointed out that we have to go further in defining the cultural dimension of public goods, which is difficult to measure but can represent a unifying thread, extending from environmental through social public goods. With growing political debate about paying for ecosystem services, we need to be clear about the appropriate level of payment for providers. Although it is important not to pay more than the full value of the service provided, payment should be on the basis of the marginal cost of delivering the public goods not on the value of the service provided. However, payments should not be too low; transaction costs could be higher than expected and needed to be taken into account, as experience in Germany had suggested.

Find out more...

Capturing public goods efficiently and with the willing support of farmers through a renewed rural development policy will clearly be a priority for the next round of rural development policy, as well as the CAP as a whole. The seminar put many of the issues on the table and underlined the depth of interest in the topic. For further details and the presentations of speakers see http://enrd.ec.europa.eu/en-rd-library/media-gallery/en/news_006.cfm



ROB PETERS

The provision of environmental public goods through agriculture





Agriculture in Europe plays an essential role in the provision of a wide variety of environmental public goods, demanded by society. These range from valued cultural landscapes such as the pastoral landscapes of Romania, Austria and France and the terraced landscapes of Italy and Spain, to providing the conditions needed for the protection of important habitats and species; carbon storage and helping to maintain high quality water and soils.

Over many centuries, agricultural management practices have transformed Europe's natural environment in order to produce materials for food, fibre and fuel. This has had both a positive and negative impact on the environment, because of the range of farming systems and agricultural management practices, farm sizes and structures. Such factors combine with local conditions, such as soil type, altitude and climate, to affect the environmental condition of the farmed landscape in many different ways.

Market forces and technological change led to the development of agriculture causing significant environmental damage, particularly in the more productive production systems where production emerged in competition to providing public goods. This development resulted in the loss of wildlife habitats and species, the deterioration of the quantity and quality of water, the degradation of soils and the loss of many distinctive traditional cultural landscapes. On the other hand, some types of farming, particularly extensive livestock, permanent crop and mixed systems in less productive areas, such as in upland areas and lowland areas

with less fertile soils, have continued to deliver a wide range of public goods.

However, ambitious European targets for climate change and biodiversity necessitate rebalancing resource use from the production of agricultural commodities to the provision of public goods. Efforts are needed to improve the status of most species and habitats and to address water scarcity and good soil management. Given the adverse consequences resulting from the marginalisation/abandonment of land, efforts are also needed to ensure continued land management in areas under risk.

There is significant variation in the degree to which environmental public goods are provided across different farming systems, with extensive livestock, mixed and less intensive permanent crop systems delivering the greatest range. However, given the challenges of food demand in the coming decades, there is a clear need for ecological intensification which must reconcile the need for better productivity with the demand for public goods. Farming systems characterised by low intensity land use will not necessarily

meet this requirement, although also in future a certain proportion of semi-natural vegetation and landscape features, as well as a diversity of land cover needs to be preserved.

More productive arable, livestock and permanent crop systems can provide environmental public goods. However, this requires the use of new technologies so as to improve soil and water management and reduce greenhouse gas emissions, or through the introduction of farming practices, which support biodiversity in more intensive agricultural landscapes.

Farm management practices providing environmental public goods

A considerable range of farming practices provide public goods, both in the crop and livestock sectors. Some are found throughout Europe, while others are associated with particular regions. The range of beneficial farming practices changes over time as new technologies are developed, providing increasing



opportunities for enhancing the environmental value of specific practices, for example, improving energy efficiency.

Two types of farming practice tend to be more aligned with the provision of public goods. Those farming systems include, firstly, low tillage practices, the sustainable use of water resources, and reduced levels of pesticides and fertilisers, the maintenance of stocking densities within the carrying capacity of the land, and the retention of landscape features and other semi-natural habitats. Many of these management practices correspond to those used in more traditional extensive farming systems, such as the maintenance of extensive livestock grazing, shepherding and transhumance practices, and the use of traditional breeds of livestock or types of crop. However, some of these practices may well be compatible with more productive types of farming systems, e.g. including incorporating fallow within the crop rotation, the use of green manures, as well as the application of technologies that improve the efficient use of resources, for example, drip irrigation.

Secondly, there are those management practices, designed to address a specific environmental concern, for example, creating buffer strips of natural vegetation around ploughed fields, leaving small areas of cropped areas unsown to encourage nesting birds, or leaving areas of semi-natural vegetation unfarmed, so as to provide a habitat for a wide range of wildlife to flourish.

Many of these management practices provide several environmental public goods, simultaneously. Some are used in a broad spectrum of farming systems over a large area of the farmed countryside, whereas others are associated with a more limited range of farming systems. The types of public goods that are most commonly provided include farmland biodiversity, water quality, soil functionality and agricultural landscapes. For example:

- Maintaining field boundaries, such as hedgerows, terraces or dry stone walls

can provide habitats for wildlife, help to prevent soil erosion, contribute to the control of landslides or flooding events, as well as being important components of the agricultural landscape;

- The use of crop rotations, including incorporating areas of fallow land within the rotation provides habitats for wildlife such as farmland birds, insects and small mammals and is associated with lower levels of chemical inputs, thereby reducing the potential for water pollution;



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- Extensive grazing practices are associated with higher levels of biodiversity, such as wildflowers, birds and butterflies, and represent important components of agricultural landscapes. The low stocking levels and the absence or low level of chemical inputs used on the land also help ensure high quality water and soils. In addition, permanent pastures perform an important role regarding carbon storage.

Incentivising the provision of environmental public goods

Because public goods cannot be provided through normal market mechanisms, public intervention is needed to encourage their supply. Public intervention can come in a number of forms, including regulation, advice and training, but financial means are also needed to pay farmers for undertaking management practices that might otherwise not be economically attractive.

There are many rural development measures under the Common Agricultural Policy (CAP) which can be used to incentivise these sorts of management practices in order to secure the provision of environmental public goods demanded by society. The agri-environment measure is the most important measure for achieving this purpose. By requiring Member States to introduce voluntary incentive schemes to encourage farmers to undertake management practices that benefit the environment, it is the single most significant measure for providing environmental public goods, across the farmed landscape, both in terms of the area of land covered and the level of funding available.

The design, targeting and delivery of agri-environment schemes differs between Member States, reflecting the various needs and environmental priorities, and hence the management practices which need to be incentivised. This freedom of choice is important, because achieving

the intended environmental objectives depends on matching the incentives offered to a wide range of local factors, which can vary enormously even within one region. Over time the environmental priorities addressed by agri-environment schemes have expanded from a focus on biodiversity and landscape, to promote management practices, which improve water quality and soil functionality, promote the sustainable use of water resources, and contribute to reducing greenhouse gas emissions, maintaining and improving the carbon storage potential of soils as well as improving the resilience of habitats to climate change.

In addition, natural handicap and Natura 2000 payments make an indirect contribution to the provision of environmental public goods, as well as rural vitality. The natural handicap measures provide support for farmers in areas with adverse natural conditions such as mountainous or remote areas, which help maintain the viability of their farming activity and





the vitality of the rural areas. The Natura 2000 measure also provides support to farmers to compensate for area-specific disadvantages, resulting from obligatory requirements that apply in Natura 2000 protected areas, designated under EU law as important for particular habitats and species. The main management practice supported under this measure is the continuation of extensive grazing practices to ensure the maintenance of species-rich permanent grassland.

In relation to the introduction of new technologies, such as drip irrigation or precision farming techniques, as well as improvements to manure storage or livestock management, the farm modernisation measure can be used to provide grants to farmers to help with the investments needed for new machinery, equipment, storage facilities and livestock housing.

In conclusion, agriculture in Europe provides society with a diverse range of public goods. However, these public goods are under-supplied as they cannot be bought and sold through normal market mechanisms. However, EU rural development policy has the potential to affect real positive change in this area, through its support of the provision of environmental public goods.

T. HUDSON





Rich Grassroots in Oak dehesas of Spain

The oak *dehesas* of Spain, open savannah-like woodlands, traditionally grazed by black pigs, sheep and cattle, contain some of the most species-rich grasslands in Europe. The *dehesas* are populated with cork oak (*Quercus suber*) and holm oak (*Quercus ilex*) trees and support a wide range of wildlife, including imperial eagles, the Iberian lynx and many reptiles and amphibians, alongside more common mammals such as otters, wild boar and deer. They are also an important cultural landscape. Very low levels of inputs are used

and the open landscape helps to prevent the spread of fire. Where pigs are grazed on the *dehesa* grassland, they have been used traditionally for the production of 'jamón ibérico' (cured ham). The pigs feed on the grass and the acorns that fall every autumn from the oak trees which give the ham its nutty flavor.



GUY BEAUFOY EFNCP



BIRDLIFE INTERNATIONAL

Grey partridges on the Sussex Downs, England (UK)

The grey partridge (*Perdix perdix*) was once a common farmland bird species in England, associated with open arable landscapes, but a reduction in nesting cover, food availability, combined with the popularity of the species for shooting for sport on modern, productive farms has led to their decline. However, successful breeding on an intensive arable estate near Arundel in the South East of England suggests that the introduction of a few simple management practices, within a productive farming system can reverse this decline.

For example, the introduction of a number of structural elements to the cropped area, such as beetle banks, hedgerows and conservation headlands has led to impressive results in terms of bird numbers. Autumn densities of grey partridges have increased from 1.2 to 64 birds per 100 hectares in only five years. The creation of conservation headlands with low inputs is key to this success, as they provide the habitat needed for the insects that the chicks feed on in the summer months. Payments are available to cover the costs of this kind of management, under agri-environment schemes.



A photograph of a traditional Dutch windmill with a thatched roof and four lattice-like sails, situated in a field of tall, golden-brown grasses. In the background, there are trees and a few buildings, including one with a red roof. The sky is a clear, pale blue. The overall scene is a rural landscape.

The importance of High Nature Value farming systems in providing public goods



High Nature Value (HNV) farming systems are inherently high in biodiversity. These systems have emerged from the interaction between area-specific natural conditions, the historical development of cultivated landscapes, and farming practices favourable to preserving high nature values. Thus, HNV farming systems are particularly important for the provision of environmental public goods.

Farming in Europe ranges from intensive production systems on more fertile land to low-intensity, more traditional systems, usually found on poorer land. Given the often negative consequences of highly productive farming systems on wildlife, soil fertility and structure, water regimes and structure less resilient to floods and fires, particular attention need to be given to the fact that the cost of remedial measures is considerably higher than the cost of action to preserve farming features that are particularly favourable in terms of their environmental outcomes.

Sustainable farming

Generally, the CAP strives to promote sustainable farming which might encompass both intensive and extensive farming systems. Sustainable farming can be defined as farming that delivers a satisfactory balance of economic, social, and environmental outcomes. Sustainable farming produces food that is healthy for consumers, respects the environment, treats workers and animals decently, provides landscape amenities and preserves valuable ecosystems and biodiversity to the benefit of urban and

rural communities. Thus, sustainable farming systems maintain “natural capital” to provide a continuous “dividend” of public goods. They are also naturally resilient, having the capacity to continue to produce public goods under changing conditions, for example climate change¹. However, the costs of maintaining these characteristics will only partly be covered by market returns. Thus, policy measures are needed to incentivize the delivery of outcomes which would otherwise render the farm economically unviable. As a result, sustainable agriculture represents farming systems that are economically viable in producing agricultural commodities and that deliver at the same time the public goods which are of value to society.

HNV farming systems

HNV farming corresponds to the expectations of sustainable farming as regards the environmental outcomes. However, most HNV farming systems are less strong as regards achieving satisfactory economic outcomes. HNV farming is characterised by a combination of low intensity land use (limited- or negligible-use of pesticides and of artificial fertilisers),

presence of semi-natural vegetation (for example, hay-meadows, pastures and orchards that are not heavily fertilised or regularly re-sown), and presence of a landscape mosaic. The mosaic and connected features of HNV landscapes provide them with a natural resilience that more intensive and monoculture systems have lost. Such areas support high species and habitat diversity, often including species of European concern.

HNV farmed landscapes are not only important for the biodiversity they sustain: rather, the presence of high biodiversity in these landscapes indicates the provision of a whole range of other public goods on which Europe’s urban as well as rural populations rely. They demonstrate the links between European farming practices, landscape, and provision of public goods. There is a growing recognition that the conservation of biodiversity and provision of other associated public goods in Europe depends on the continuation of these sustainable farming systems across large areas of the countryside.

The evolution of the HNV farmland concept over the last few years has led to the

(1) – TEEB (2010) *The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB*. Pavan Sukhdev, Heidi Wittmer, Christoph Schröter-Schlaack, Carsten Nesshöver, Joshua Bishop, Patrick ten Brink, Haripriya Gundimeda, Pushpam Kumar and Ben Simmons.



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development of HNV farmland indicators, which are important for measuring the socio-economic as well as biodiversity trends in Europe's farmed landscapes². This underlines the decline of, and to target timely support for, sustainable especially HNV farming practices. This is key to preventing the loss of "natural capital" and of supply of public goods.

What public goods do HNV farming systems provide?

HNV farming systems are strongly associated with the provision of an array of public goods. The most well-defined of these are environmental public goods. In addition, there are social public goods which are less easily defined but equally important.

Environmental public goods include:

- **Biodiversity:** Less intensive use of machinery, fertilisers, pesticides and livestock increases opportunities for wildlife on cropped and grazed land. Field margins and uncultivated patches associated with HNV farming form valuable refuges for wildlife. HNV farming landscapes provide food, shelter and breeding sites for birds, mammals and insects, and the conditions for native flowers and other plants to grow.

The fact that HNV farmed landscapes are more biodiverse than intensively farmed landscapes is not surprising. Perhaps more surprising is the fact that, as a result of its mosaic nature, HNV farmed landscapes commonly support greater species as well as habitat diversity as opposed to wilderness areas.

Wilderness areas have often reached a state of climax vegetation which is relatively uniform over large areas; the complex HNV mosaic is generally more biodiversity-friendly. Farmland biodiversity also includes 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 and important for long-term food security.

- **Climate change – carbon sequestration, reduction of greenhouse gas (GHG) emissions.** HNV permanent grassland locks up significant amounts of carbon above and below ground. Intensively managed grassland sequesters about half the amount of carbon. Permanent grassland also traps similar amounts of carbon below ground as do woodland soils. Ploughing of grassland,

(2) – IEEP, 2007. *HNV Indicators for Evaluation, Final report for DG Agriculture. Contract notice 2006-G4-04. Authors: Tamsin Cooper (IEEP), Kathryn Arblaster (IEEP), David Baldock (IEEP), Martin Farmer (IEEP), Guy Beaufoy (EFNCP), Gwyn Jones (EFNCP), Xavier Poux (EFNCP), Davy McCracken (EFNCP), Eric Signal (EFNCP), Berien Elbersen (Alterra), Dirk Wascher (Alterra), Per Angelstam (Swedish University of Agricultural Sciences), Jean-Michel Roberge (Swedish University of Agricultural Sciences), Philippe Pointereau (Solagro), Jan Seffer (Daphne), Dobromil Galvanek (Daphne).*

HNV farmland is characterised as follows

Type 1: wide expanses of semi-natural grazed vegetation managed for extensive livestock: grassland, scrub or woodland, or a combination of these.

Type 2: semi-natural vegetation in a mosaic with low intensity arable or permanent crops, providing a mix of habitats used by a range of wildlife species.

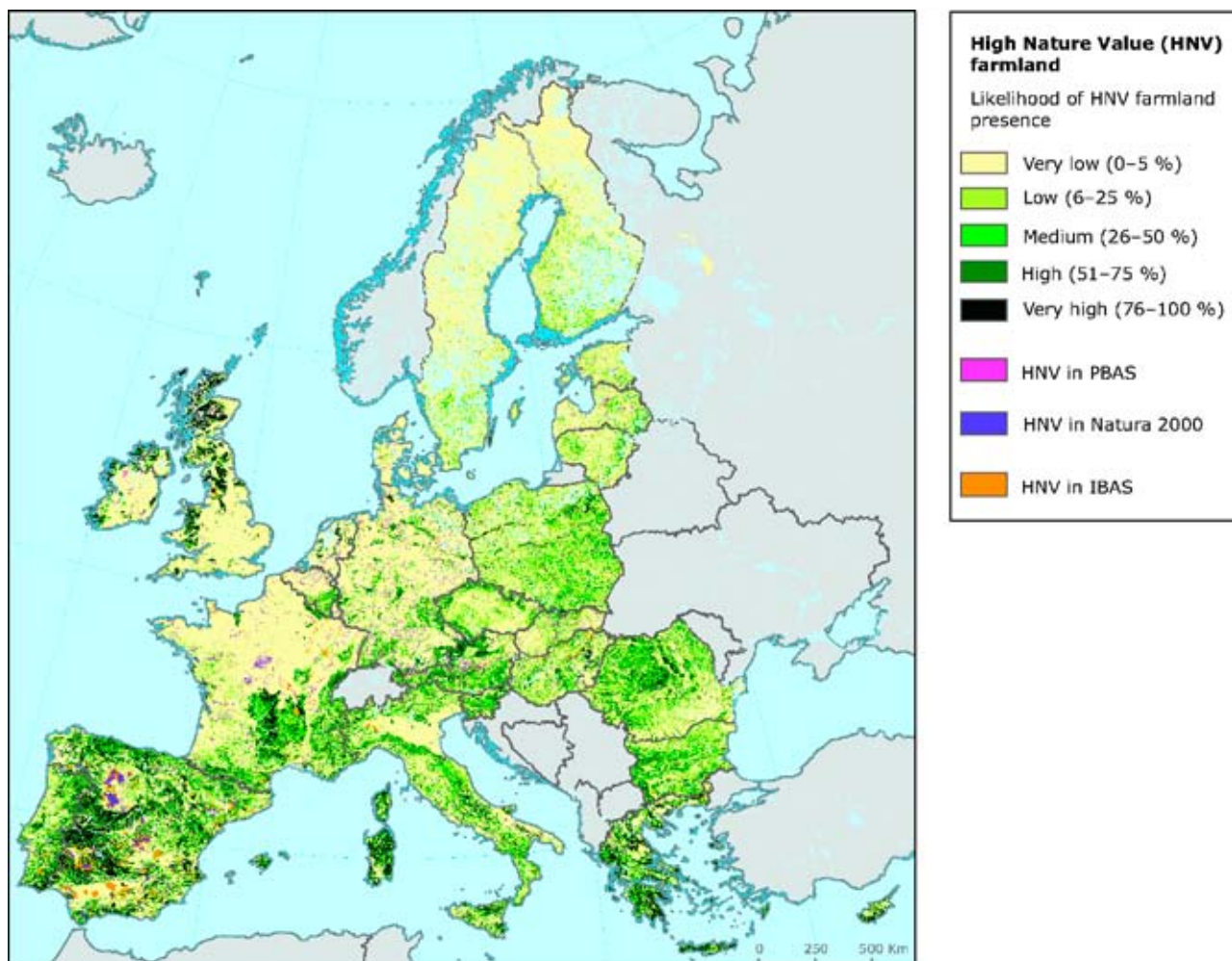
Type 3: more intensively managed often arable land, which does not suggest high nature value, may still support species of conservation concern, especially birds which rely on bare

ground for nesting or feeding, such as the threatened Great Bustard (*Otis tarda*).

Low-intensity farmland of HNV Types 1 and 2 still covers extensive areas of Europe's more marginal regions. Estimates by the European Environment Agency and the European Commission's Joint Research Centre suggest that over 30% of farmland in the EU may be HNV farmland. In several countries, the figure is over 50%³.

(3) – Andersen, E., Baldock, D., Bennett, H., Beaufoy, G., Bignal, E., Brouwer, F., Elbersen, B., Eiden, G., Godeschalk, F., Jones, G., McCracken, D.I., Nieuwenhuizen, W., van Eupen, M., Hennekens, S. & Zervas, G., 2003. Developing a high nature value indicator. Report for European Environment Agency, Copenhagen.
<http://eea.eionet.europa.eu/Public/irc/enviowindows/hnv/library>

Figure 2 – Likelihood of the presence of HNV farmland in the EU-27



Source: Paracchini, M.L., Petersen, J-E., Hoogeveen, Y., Bamps, C., Burfield, I. and van Swaay, C., 2008. High nature value farmland in Europe. An estimate of the distribution patterns on the basis of land cover and biodiversity data. European Commission Joint Research Centre.

<http://www.eea.europa.eu/data-and-maps/figures/high-nature-value-farmland-in-europe>



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especially unimproved grassland, and conversion to arable farming releases huge amounts of carbon.

As well as improving carbon storage, sustainable farming systems promote climate stability by reducing emissions of the greenhouse gases that are responsible for global warming. This is achieved mainly by the low use of artificial fertilizers and fossil fuels.

- **Disease and pest regulation, pollination services:** healthy communities of insect pollinators and natural predators of agricultural pests and diseases are vital for good yields and high agricultural production. These depend on structurally diverse and semi-natural habitats such as those found in HNV farmland Types 1 and 2.
- **Soil functionality:** soil is the basic resource of all food production, but intensive farming methods can damage soil structure. A well-functioning

soil maintained by low pesticide use, low stocking rates (reducing damage to soils by poaching), and in arable land by reduced tillage and crop rotation, has a good structure and sufficient organic matter, and is resilient to erosion.

- **Water quality, water security, flood prevention:** HNV landscapes provide regulated water supplies, in quality and quantity. Use of water to irrigate intensive farms is unsustainable, and is reducing aquifer levels. Also of urgent concern in Europe is the increase of catastrophic floods in lowland areas, which are associated largely with the result of the 'improvement' of drainage upstream, removing the beneficial gradual retention and discharge of high water levels offered by HNV landscapes.
- **Resistance to fires:** in central and southern Member States, 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 plantations. Devastating fires have become more common in southern Europe partly as a result of the discontinuation of the tradition of forest grazing.

And, beyond environmental public goods, there are important **Social Public Goods**

- **Rural Vitality:** HNV farming systems also fulfill social objectives, particularly in more marginal rural areas. These farming systems are more labour intensive, and generally offer greater and more varied rural employment. Traditionally-farmed HNV landscapes, especially in new member states, are maintained by small-scale farming communities that struggle to retain the critical mass necessary for socio-economic viability. This is often linked to social stability and maintenance of cultural traditions. These communities can act as a social safety-net in

times of unemployment, especially in new member states⁴. However, in many HNV areas, especially the more remote ones, rural communities are struggling with depopulation and land abandonment.

The importance of maintaining sustainable farming systems can be justified by the multiple public goods such systems produce. They contribute to attaining EU policy goals as regards halting the loss of biodiversity. Their precise value is very hard to estimate, but the economic, social and environmental costs of losing these farming systems can often far outweigh the costs of maintaining them.

The significance of HNV farming

HNV farming is a prominent feature in certain remote or less productive areas where HNV farming practices assures

the maintenance of the “natural capital” required for the continued provision of a range of public goods. However, given the limited geographical presence as well as the economic weaknesses of HNV farming systems, more thought needs to be given to improving its economic performance while preserving its environmental features. Furthermore, consideration needs to be given to how far farming practices associated with HNV farming can also be introduced into more intensive systems. Evidently, in order to ensure the provision of public goods in line with societal needs, the provision of public goods through agriculture must not be limited to certain designated “HNV areas”. Sustainable farming practices must be recognised and supported wherever they occur in Europe.

The next phase of the CAP is likely to place even greater emphasis on supporting sustainable farming practices. It

is important that the provision of public goods by farming is recognised and rewarded. Attention must be given to HNV systems, since they are particularly productive in terms of public goods and equally vulnerable to competition from less sustainable systems less productive to the provision of public goods.

If the new CAP strongly supports sustainable farming practices, and halts the decline of HNV farming systems, this will both promote Europe’s long-term food security and healthy environment, and also respond to the current concerns of Europe’s citizens about how the CAP should be used to the general benefit of society.



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(4) – See for example Cooper, T., Hart, K. and Baldock, D. (2009), *The Provision of Public Goods through Agriculture in the European Union*, Report Prepared for DG Agriculture and Rural Development, Contract No 30-CE-0233091/00-28, Institute for European Environmental Policy: London, p.25.



Fire prevention through extensive grazing in Castilla y León, Spain

Of the total 26 million hectares of monte (commonly translated as 'forest') in Spain, over 50% is actually made up of grassland - natural meadows, rough grazing, poorer rough grazing and open wood pasture - and an additional 24% is scrubby or wooded land also used regularly for grazing. Thus in 74% or 19.4 million hectares of land classified as forest in Spain, livestock grazing is one of the main land uses.

Traditionally, monte provided 50% of grazing in Spain. However, this has now fallen to 10% as a result of the abandonment of traditional grazing systems. This has led to a severe increase in forest fires; grazing acted to reduce the accumulation of dead woody material, and kept forests open, of great importance for reducing the incidence and spread of fires. Forest fires increased nationally tenfold between the 1960s and the 1990s (average fires/year for the decade 1961-1970 was 1,920, and in 1991-2000

was 19,272 fires/year). The total financial cost/year of these fires averaged € 0.8m/year in the 1960s, and € 325m/year in the 1970s⁵.

Plan 42 is the forest fire prevention strategy of Castilla y León, set up by the regional Ministry of Environment in 2002. It targets the 42 municipalities with the highest incidence of wild fires. One line of action is to work with livestock farmers. The aim is to maintain the crucial function of extensive grazing on forest lands, while changing the attitude of graziers who traditionally used fire as a pasture regeneration tool. Importantly, the project officers can provide a financial incentive in the form of a Rural Development Programme (RDP) grant for scrub clearance in the pastures, grazed scrub and woodland of *monte*. Under plan 42, fires in the region have decreased by 70% since 2002.

(5) – Ministerio de Medio Ambiente, y Medio Rural y Marino, Report on Forest Fires of Spain, 2008.





Biodiversity and water resources protected by mosaic farmed landscapes of Transylvania, Romania

The Tarnava Mare area of central Transylvania, Romania, is one of Europe's best preserved, lowland agricultural landscapes; typical Type 2 HNV farmland, but continuous on a landscape scale and still ecologically functional as it would have been hundreds of years ago. It is a powerful example of the multiple public goods that HNV farmed landscapes can provide.

Biodiversity: a fine patchwork of arable land and hay meadows, linked to small-scale land ownership, combined with pasture and scrub creates a complex web of habitats, ecotones and refuges for plant, vertebrate and invertebrate wildlife. The landscape is a haven for threatened species in Europe, including wolves, bears, and important bird and butterfly species, and is a potential source of re-population of such threatened species in Europe in the future. The landscape is also a pool of agro-biodiversity, especially local varieties of vegetables and fruits, which are important for our future food security.

Biological control and pollination: the landscape is a refuge for biological control species which limit plant diseases and pests which can only be controlled in more intensive systems through the use of potentially harmful pesticides.

The area also has strong populations of bees and other insect pollinators, which have collapsed in many parts of Europe. Each village in the Tarnava Mare area has hundreds of beehives, part of the continued agricultural tradition of the area. The value of public goods to the agriculture related to the pollination services of bees is considerably greater than the commercial value of the direct beekeeping products.

Water conservation and flood prevention: the area's mosaic landscapes, with winding streams, seasonally-flooded water meadows, and riverbank trees have a high capacity to absorb excess rainfall, which is then released slowly. This alleviates seasonal flooding, so that the towns and cities downstream are not damaged, and also prevents soil erosion and water quality. The capacity of HNV mosaic landscapes to store and slowly release water also alleviates the effects of drought in a changing climate.



The role of forestry in the production of public goods



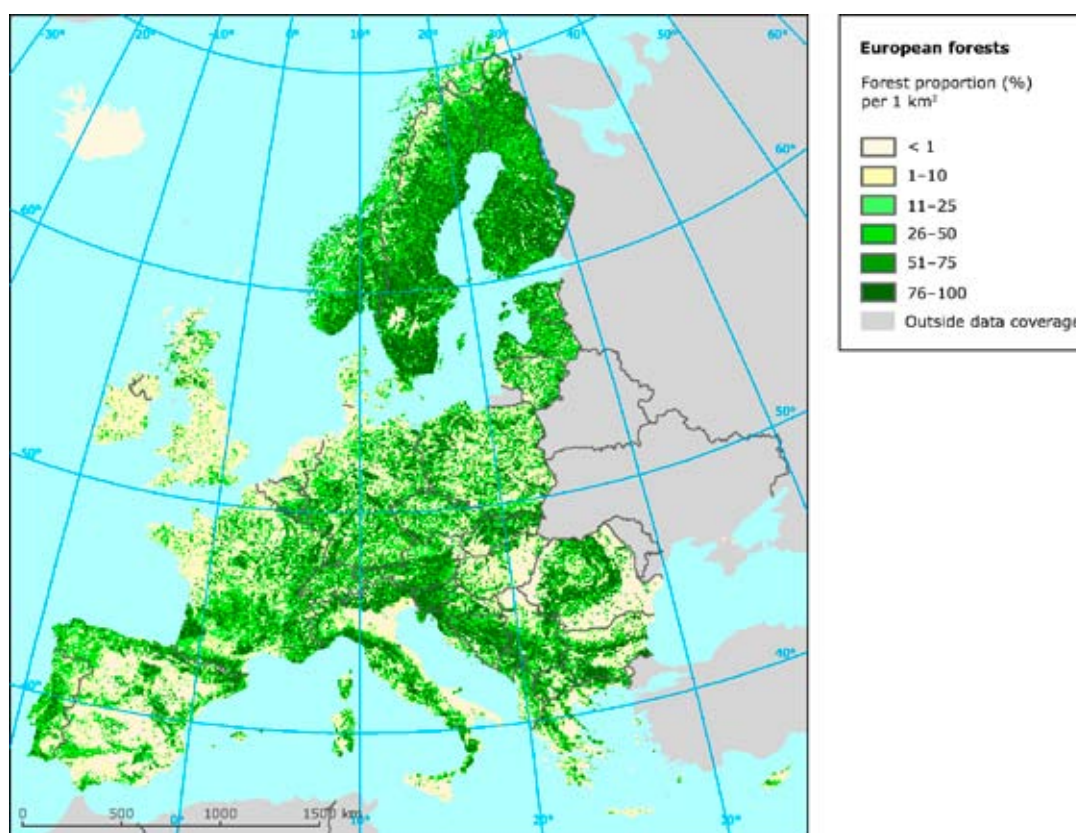
The forests and other wooded land of the EU are just as important as farmland in providing public goods. We need forests to meet current challenges, especially climate change and biodiversity loss. Rural Development Programmes (RDPs) are supporting the sustainable management of existing forests and the creation of new ones, with benefits both to our quality of life and the vitality of some of Europe's remotest rural areas.

Europe's forests cover 155 million hectares, 37% of the EU land area⁶, where they help to protect soil, water resources and biodiversity, store

carbon and provide raw materials and jobs for the renewable energy sector. And of course forests continue to provide sawn timber, wood-based panels, pulp

for paper-making, firewood and less well-known products too, such as berries and mushrooms, wild game and cork.

Figure 3 – Forest distribution in Europe based on Corine Land Cover 2000



Source: EC, 2007. Pan-European Forest/Non-Forest Map 2000. Joint Research Centre, Institute for Environment and Sustainability.

<http://www.eea.europa.eu/data-and-maps/figures/pan-european-forest-and-non-forest-map-2000>

(6) – European Commission (2009) Report on implementation of forestry measures under the Rural Development Regulation 1698/2005 for the period 2007-2013. DG Agri [Directorate H - Sustainability and Quality of Agriculture and Rural Development H.4. Bioenergy, biomass, forestry and climate change].

Of the total forest area, 129 million hectares are available for harvesting⁷. The biggest providers of forest timber are Sweden, Germany, France, Finland and Poland but in most EU forests the volume of timber removed is not keeping pace with the annual growth and some forests are no longer managed.

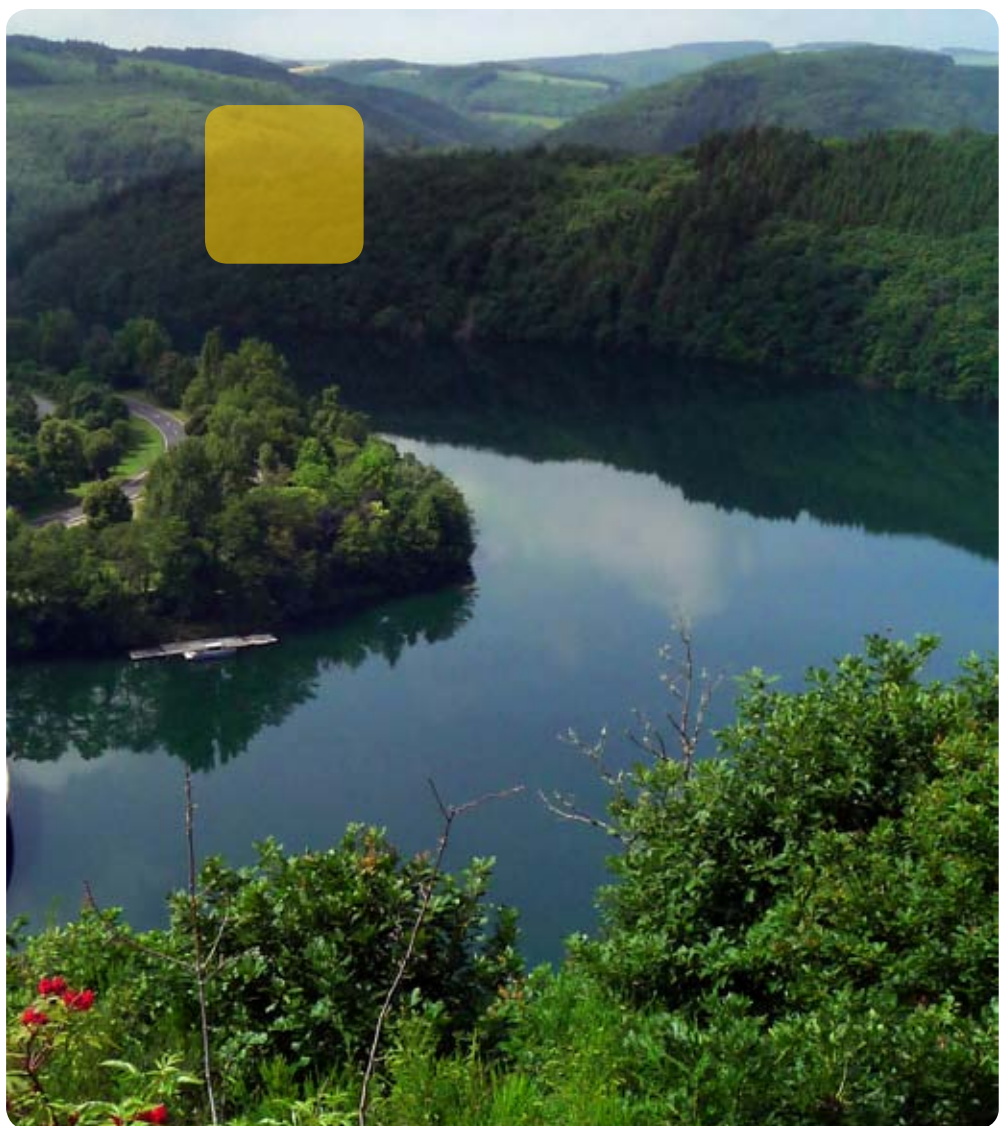
There is concern about the problems of deforestation in other parts of the world but forest cover in the EU has increased over the past few decades, as a result of public investment in afforestation and natural regeneration on marginal land. The largest forest areas are found in Sweden, Spain, Finland and France but, as Figure 1 shows, some parts of Europe now have very little wooded land.

There are many kinds of forest - from plantations managed intensively for timber and pulp, to 'old growth' natural or semi-natural forests which are harvested for timber to a lower extent but have rich stores of carbon, biodiversity, game, wild fruits and fungi. These forests are also an important reservoir of genetically diverse native trees, which could prove very useful as foresters adapt plantation forests to climate change.

The many ways in which forests can help to reduce atmospheric carbon are quite complex. While trees are actively growing they absorb atmospheric carbon, which is stored in the trees and in the forest soils. Some of this carbon is released to the atmosphere if the trees grow old

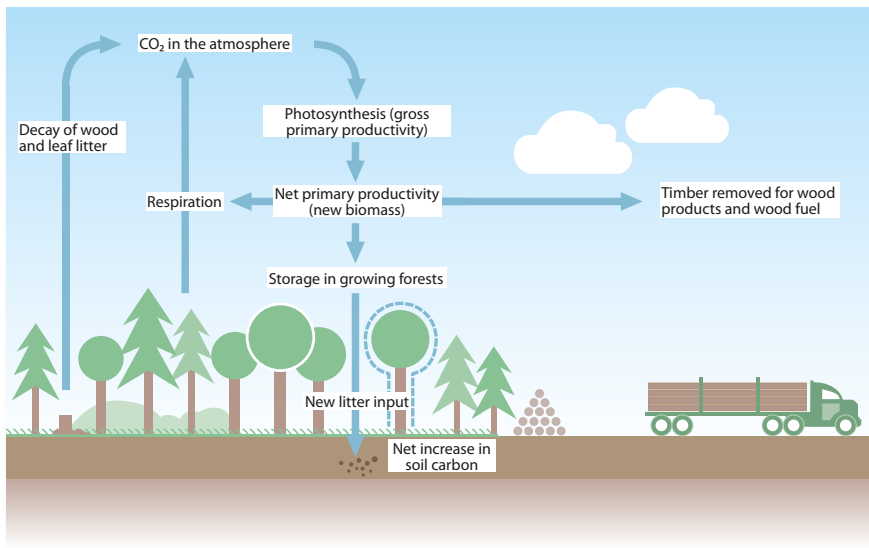
and decay, or if they are used as wood-fuel – but then another carbon absorption cycle begins, as new trees grow in their place.

Wood-fuel based renewable energy is only one of the ways in which forests help us to achieve our carbon targets. For example, using timber for construction and furniture can lock up new carbon stores for hundreds of years, and taking care of forest soils helps to maximise their carbon storage capacity.



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(7) – Data for 2005, from European Union (2010) Rural Development in the EU Statistical and Economic Information Report 2010. DG Agriculture.

Figure 4 – The forest carbon cycle

Source: Forestry Statistics 2010 – UK Forests and Climate Change.

Forest management

Forests are managed in different ways for a variety of purposes, but multi-functional forestry is particularly important in terms of the provision of public goods.

The relative importance of different public goods in a particular forest type will depend on the circumstances. Forests can protect soils from erosion, reduce variations in water flows in river catchments, and regulate the hydrological cycle. For example, in Spain the main function of 88% of forests⁸, is protection against soil erosion and desertification, in a country with steep slopes and scant, irregular rainfall.

Forest species make up an important assemblage of biodiversity in any terrestrial ecosystem. Of course they have occupied a place of great importance in our lives for such a long time that trees and forests are a treasured part of our cultural and historical heritage, and still shape our landscapes. But we cannot take the well-being of forest wildlife for granted.

Multi-functional forestry, which is perceived as forests with natural ecosystems of multiple productive and social functions, ensures the provision of environmental public goods (protection of air, soil, water, biodiversity conservation) and social public goods (cultural heritage, recreational use and aesthetic landscapes).

Around and within cities, where most people in Europe now live, forests provide fresh air and fresh water, reduce dust, heat and noise, and provide an ideal place for outdoor recreation and leisure.

The management of forests may vary by ownership. About 60% of the EU's forests are privately owned⁹, with the majority of forest holdings smaller than five hectares, but both the share and type of private ownership is very diverse across Europe. Portugal has the highest share of privately owned forests, over 90%, followed by Austria, Sweden and France¹⁰. Private owners may still live on their holdings, as in Sweden, or comprise of private companies with large holdings.

Publicly owned forests may belong to national or regional government bodies, or to other public institutions, such as cities, municipalities and communes. The objectives of public ownership may often be focused on multi-functional forestry, especially near towns and cities where forest recreation is important, or on conservation forestry, in areas with fragile soils, in the mountains and in old-growth forests. There are state-owned commercial forest enterprises too, as in Ireland, and in many rural areas forest employment contributes directly to rural vitality. In the UK, state-owned conifer plantations are managed primarily for public goods but still have an important role to play in the provision of a regular supply of raw materials to local processors.

(8) – FAO forestry country information – Spain. Available from <http://www.fao.org/forestry/country/en/esp/> (accessed 6 June 2010).

(9) – European Commission (2009) Report on implementation of forestry measures under the Rural Development Regulation 1698/2005 for the period 2007-2013. DG Agri [Directorate H - Sustainability and Quality of Agriculture and Rural Development H.4. Bioenergy, biomass, forestry and climate change].

(10) – FAO (2006) Global Forest Resources Assessment, Main Report, United Nations Food and Agriculture Organization (FAO), Rome, Italy.

The role of the rural development policy

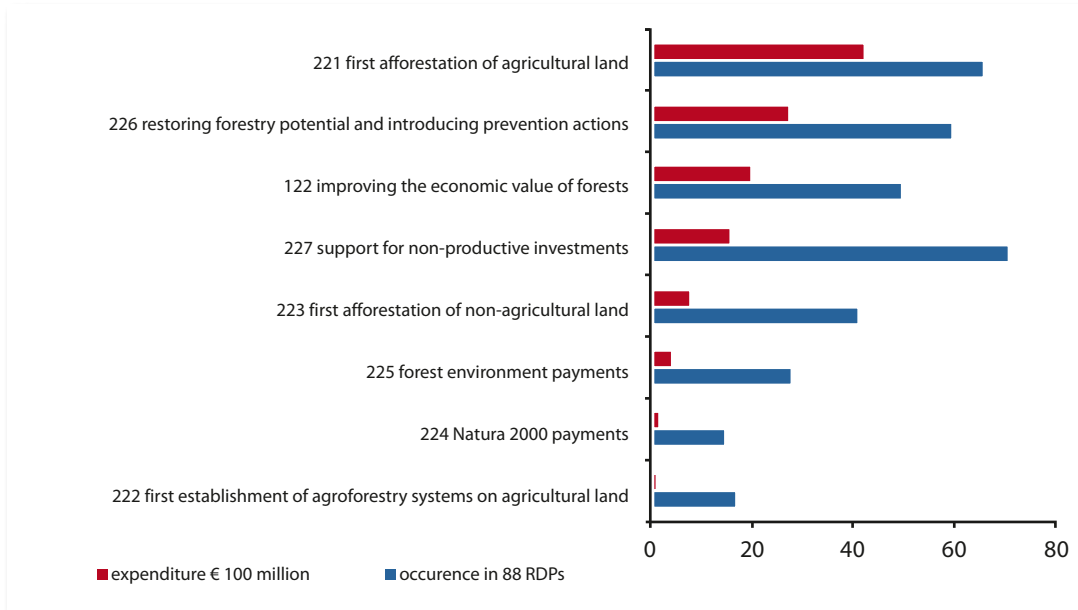
The EU has no 'Common Forest Policy' like those for agriculture or fisheries but there is still a common underlying principle of multi-functionality in EU forestry. This is made evident in the Forestry Strategy for the EU, which identifies sustainable forest

management as the key tool for delivering public goods.

The main funding mechanism to support forest management for public goods is Pillar 2 of the Common Agricultural Policy (CAP), although many Member States also use state aids. Member States can choose from eight RDP measures specifically for

forestry, most of them in axis 2 and with a strong emphasis on sustainable forest management. A total of € 12 billion public expenditure has been allocated to these measures for the 2007-13 period across the EU-27 but, as Figure 3 shows, the most widely used measures do not necessarily account for the majority of public funds.

Figure 5 – Forestry measures in all 2007-13 RDPs – occurrence and expenditure before the CAP Health Check



Source: ENRD Contact Point elaboration from European Commission (2009).



CLUNIE KEENLEYSIDE



T. HUDSON

One of the most popular measures is the afforestation of farmland, either by planting or by encouraging natural regeneration. Much of this new woodland will be on farmland currently used for grazing. Payments for establishing new agro-forestry systems, where extensive farming and forestry are combined on the same land, were only introduced in 2007, but are already being used in 17 RDPs, mainly in the Mediterranean, Hungary and the UK.

The widely used support for 'non-productive' environmental investments features in 71 of the 88 RDPs. In Sweden, this will be targeted at 65 000 ha of the most

environmentally valuable forests and woodland, and in Brandenburg-Berlin (Germany) the aim is to change the mono-structural character of the forests and preserve and develop Natura 2000 sites and protected areas.

Increasing the provision of environmental and social public goods from Europe's forests is not without challenges, for foresters, forest owners and governments. Providing public goods of high quality water, biodiversity and soils often requires a 'landscape scale' approach, when forest ownership may be fragmented. Choosing the best locations and forest

management for carbon storage and soil conservation, and making forests more resilient to the effects of climate change, may require more research, new expertise and careful targeting and monitoring. The RDP toolkit can help to meet these challenges by providing not just financial support for sustainable forest management, but assistance with advice, training and marketing also. The sharing of experiences between Member States will be an important aspect of the process and the ENRD Contact Point has set up a Thematic Initiative on Forestry to do just this.





HEDENÄSETS NÄRVÄRME AB



Forests supplying renewable energy in Sweden

Member States are using a wide range of RDP measures to make their forest owners more competitive in the renewable energy market. Increasing the use of wood energy in place of fossil fuels, will help to reduce overall greenhouse gas emissions.

In the cold climate of northern Sweden the local heating plant at Hedenäset provides heat from bio energy for all the municipal buildings in the village and about 40 private houses. Three years ago all these houses were heated by oil or electricity. The heating plant is owned by nine local business people, some of them are farmers and forest owners, who did most of the building work

themselves on both the plant and the heat distribution system. They manage the plant through their own businesses, keeping maintenance costs low. The plant cost € 694 000, and received € 192 000 RDP support.

Wood chips from local forest owners provide the fuel, but the plan is for wood chips to be fired in combination with reed canary grass, some of it delivered by partners from their own farms. The plant delivers about 1.6 MW but has the capacity to increase this to 2 MW, and other private house owners want to connect to the distribution network.



Protecting forests from fire and storm damage in Italy

Protecting forest resources so that they continue to provide marketable products and public goods has long been a priority for the EU. The main risks are damage from storms or floods in the northern and western Europe, and that from forest fires in the central and Mediterranean regions. The current RDPs are expected to support more than 120 000 actions protecting or restoring more than 2 million hectares of forest at risk of damage.

In Italy many native forests represent not only a rich source of biodiversity but also offer valuable protection from erosion for vulnerable soils. In Umbria, a very important Natura 2000 site damaged by fire is now recovering well after RDP funding helped to remove dead and damaged trees, replant the site with native oak trees (*Quercus cerris*, *Q. pubescens*) and convert an artificial plantation of pine (*Pinus nigra*) to mixed deciduous species. The ground is steep and much of the work had to be done by hand to avoid damaging the fragile habitat, but the RDP support helped the mountain community to restore this site, and provided local employment. The boundary of the restored area can be seen running diagonally across the photograph from top left to bottom right.



The socio-economic and cultural dimension of public goods provided by agriculture and rural development





Public goods play an important role as a core ingredient in the long-term development of rural areas. This concerns the enhancing of cultural, historical, human and environmental assets, and promoting their role in fostering sustainable socio-economic growth.

The provision of public goods in European rural areas can have a major impact on stimulating economic development in those areas. This is particularly valid in the case of public goods associated with agriculture, such as rural vitality, food security and farm animal welfare. Traditional local products or rural tourism may also build on public environmental features such as an outstanding natural landscape, air and soil quality or a region-specific bio-diversity. These features can play a key role in attracting investment and promoting economic activities, subsequently benefiting the local rural economy and the quality of life in the community. Some rural areas depend economically, partly or wholly, on their natural environments and the provision of these public goods may be linked, to a large degree, on preservation of their natural environments through appropriate agricultural practices.

EU Member States' Rural Development Programmes (RDPS) offer support towards promoting sustainable farming, improving the quality of life in rural areas

and encouraging diversification of economic activity. Many of those activities support rural communities and economies by enhancing the rural infrastructure and developing new services and products which build on unique, natural assets. By helping to sustain a critical mass of people in the countryside, these activities contribute towards providing the socio-economic public good of rural vitality

Rural vitality

Rural vitality is a composite of the economic, social and cultural dimensions of a rural development process. It builds largely on agricultural, environmental, cultural and historical assets in a given rural area. Agriculture helps preserve employment in rural areas, and together with activities which help to preserve and enhance the agricultural and environmental assets will bring socio-economic prosperity to the respective rural area. Rural vitality is usually a result of a long-term process which links the improvement of economic viability

with improvements in the agricultural output, local social infrastructure and an increased sense of local community and pride (i.e. 'regional/local identity').

Socio-economic challenges

Recent research suggests that rural vitality is crucial to sustaining rural economies and preserving rural skills and farming practices. Migration flows following the EU enlargement process in 2004 saw a rapid increase in the number of young people from poorer rural areas in central eastern Europe, and specifically in Poland, to western Europe – which resulted in skills deprivation.

As a result, many rural areas have become increasingly under-populated, faced with an ageing society and with traditional skills, products and practices fading away. With agriculture providing a key contribution to rural economies in many EU Member States, preserving agricultural heritage and employment helps sustain social capital. Rural Development



NATIONAL FUND WICKEN FEN



Wicken Fen Dragonfly Centre, UK

Wicken Fen is one of Britain's oldest nature reserves with international significance. It is also one of the best locations in the UK to spot dragonflies – 24 species have recently been listed as occurring on the fen, including the rare Emperor Dragonfly. The reserve, located in rural Cambridgeshire is a major tourism attraction, with more than 37 500 visitors per year (it helps that the town itself is famous and popular with visitors). While dragonflies are in decline nationally, the wetlands in the Wicken Fen area provide excellent habitat for their long-term survival. The extinction of dragonflies in the area would have a devastating effect on many other species.

The owner of the reserve is the National Trust, a charity which protects, maintains and opens to the public historic houses, gardens, ancient monuments, forests, nature reserves and farmlands. In 2009 the National Trust applied for an axis 3 grant from the English regional RDP to develop a new tourism product: a Dragonfly Centre. A grant of £ 36 900 (€ 41 870) was awarded to help towards the costs of setting up the Centre, and resourcing it with specialist equipment including microscopes, TV's and colourful displays and for constructing dragonfly ponds.

The Centre opened in July 2010, and has been hugely popular since. It is the only Dragonfly Centre in Europe, and it is also

been used to conduct dragonfly safaris, guided walks and tours, and general or tailored courses provided by the Dragonfly Partnership. It is estimated that the Centre will attract up to 3 000 additional visitors per annum, and bring in approximately £ 24 000 (€ 27 245) of revenue a year to Wicken Fen.

Fiona Bryant, Head of Sustainable and Rural Development for the East of England Development Agency said: *"The Dragonfly Centre is a good example of how the RDP funding can be used to build on the environmental assets of the Fens and develop the area as a high quality visitor destination. This project will also meet RDP objectives of improving access to the countryside and raising awareness of the importance of biodiversity."*

The Dragonfly Centre is contributing to the long-term sustainability and economic and social viability of Wicken Fen and the surrounding rural area. It attracts many visitors, which helps local businesses, it plays a key role in helping improve biodiversity and access to the countryside, and in the long term its clever commercial activities can potentially contribute to more inward investment and the subsequently improvement of local transportation, social and cultural infrastructure. For more information visit

http://www.wicken.org.uk/visit_dragonflycentre.htm



Clare Farm Heritage Tours in the Burren, Ireland

The Burren region in County Clare, Ireland, is one of the most unique landscapes in Ireland and in Europe, with huge pavements of limestone present containing clints and grikes. The place is rich in outstanding landscapes, ancient history, spectacular wildlife and culture. Much of the Burren has been designated as Special Areas of Conservation (SACs), under the EU Habitats Directive, and part of the exceptional environmental, historical and cultural heritage of the Burren is situated on private farms, where public access is restricted and farming remains strictly regulated.

Back in 2009, a number of local farmers came together and took a decision to establish a co-operative to open those sites to the public. All of the farmers have continued a tradition of farming dating back over 6000 years, on land where more than 100 archeological sites and monuments have been identified, and where much of the landscape remained unchanged over millennia.

In order to capitalise on this heritage, the Clare Farm Heritage Tours Co-operative was therefore founded by nine North Clare farmers. The objective of the Co-operative is two-fold: on-farm diversification, and development of a new tourism offering which can attract high interest and long-term benefits to the Clare County community. With support from axis 4 of the Irish RDP, the Co-op commenced its activity in 2009.

'Growing up in the Burren, the knowledge of its ancient history and the heritage farming practices used here were part of our everyday education since early childhood. We enjoy sharing that knowledge and are open and excited to learn bits of new information that other Burren experts can offer. Every farm tour is as much an experience to us as we are aspiring to make it a day to remember for our visitors' says one farmer, Frank O'Grady.

Clare Farm Heritage Tours is a member of the Burren Ecotourism Network and it employs local people to promote heritage, archaeology and ancient farming practices while educating tourists about the vulnerability of the Burren's landscape and the importance of its preservation. The tours are both educational and fun, and visitors are guided by people who have lived and worked in the Burren for generations. The Co-operative project, based only one hour away from Ireland's busy Shannon International Airport, is having a positive economic effect on the local area by bringing more visitors into the Clare County, and providing employment for local farmers. It is an example of how the provision of environmental public goods through agriculture can be the basis for wider rural development opportunities. This project also helps build an even stronger sense of place for the local community.

The project is a finalist of the JFC Innovation Awards for Rural Business in 2010.

For more information visit www.farmheritagetours.com



CLARE FARM HERITAGE TOURS CO-OP

Policy thus plays a key role in preserving those skills and in attracting people to settle and come back to rural areas. It provides a vehicle to encourage entrepreneurship, and to improve social and cultural infrastructure. Rural areas are expected to no longer be concerned with just one type of economic activity, typically agriculture. Rather, building on local public goods offers a sound alternative to agriculture.

The provision of public goods, and specifically environmental public goods, can have a major impact on the development of tourism services and rural vitality, especially in areas where many of the above mentioned challenges come together.

A recently observed trend in some Member States of young families and older people moving out of cities to quieter rural areas proves that an existence

of a viable infrastructure base, such as schools, health services, transport links, telecommunications as well as ICT is a major decision factor when moving to the countryside. A rural area which works on developing non-agricultural economic activity, in particular based on environmental assets, has a high potential of attracting younger people to settle.



Challenges for the CAP post-2013

The NRN contributions to the CAP post-2013 debate, collected by the European Network for Rural Development (ENRD) revealed a number of critical issues for rural areas. One of them refers to the scale of public goods and services and the required policy and funding response. The majority of the challenges faced by rural areas refer to the economic and

subsequently social objectives of Rural Development Policy, in particular the ageing society, rural area exodus, economic activity diversification, preservation of biodiversity and the countryside as well as climate change adaptation while maintaining and supporting rural vitality.

Maintaining rural vitality is closely linked to the existence and skilful use of local environmental assets and public goods

provided through agriculture to maintain a sustainable population in rural areas and encourage diversified economic activity. The EU's current Rural Development Policy is equipped with a number of tools to encourage such activities, with positive results as seen in the case studies here. Many stakeholders believe it is crucial that the future CAP continues with its efforts to allow rural communities to make effective socio-economic use of such public goods.

Busko Zdroj Municipality, Poland

Busko Zdroj is situated in the south part of Swietokrzyskie Region in Poland, 80 km north of Krakow. The municipality is home to one of Poland's top health resorts. It is famous for its sulphide springs, its unique location close to the Swietokrzyskie Mountains in the wide and scenic Ponidzie valley of the Nida River, and also on account of its mild climate. It is a major tourist attraction for those who want to improve their health in Busko's nine health spas.

Other tourist attractions include the municipality's Natura 2000 areas, nature reserves, national parks, resorts and pools, wild animal and tree sanctuaries, as well as many historical landmarks and cultural events organised to attract visitors. These include the Festival of Busko-Zdroj, the Ponidzie International Exhibition of Photography, the Florianski Fair, the International Music Festival, the International Folk Festival and The Summer with Chopin concerts.

Radzanow, a small village located 3 km south of Busko, is well known for its two pools - a swimming pool and a fishing pool of a total 23 ha. The Tourism Development Strategy of the Swietokrzyskie Region for 2006-2014 recognised the economic potential of Radzanow pools and made it one of its priorities to increase the attractiveness and condition of these

environmental assets. The Local Development Strategy of the Local Action Group (LAG) 'Sunny Leader' further emphasised the unique value of the pools to the rural tourism industry.

In 2009, the Busko Zdroj municipality applied for a grant from axis 3 of the Polish RDP to improve and develop the area around the Radzanow pools, in order to upgrade them and increase their value to the tourism industry.

A grant of PLN 500 000 (€ 128 125) has been used to improve and enlarge the beach areas, build handball pits, renovate the existing piers, create playgrounds, picnic areas and fencing. The new amenities, which opened in summer 2010, have already proven very popular with both tourists and locals, and are a valuable addition to the existing tourism infrastructure in the village. It has also contributed to the tourism value of Busko Zdroj and Radzanow. This type of enhanced public goods tourism attraction can be shown to have helped support local businesses, and due to its proximity to Busko, Radzanow is on its way to develop its own tourism infrastructure.

For more information visit www.busko.pl



Public policy in support of public goods: analysis by the European Network for Rural Development



The measures contained in the Rural Development Programmes (RDPs) contribute to the provision of public goods. A particular focus is on environmental public goods. Measures that have clear objectives in this regard account for the main part of the Rural Development budget, but there is still further potential to be realised.

In October 2008, the European Network for Rural Development (ENRD) established a special Thematic Working Group on public goods (TWG3) to consider the role and potential of rural development policy to deliver public goods

associated with agriculture. The group looked specifically at environmental public goods and rural vitality, which were considered to be the main public goods addressed by the RDPs (see Figure 6).

Under-supply of public goods

Reporting on the conclusions of its work, the expert group highlights the need for policy action in order to ensure a supply of public goods in line with societal needs. A particular problem of under-supply is stated concerning environmental public goods. This situation of under-supply is attributed to insufficient incentives for farmers to provide these public goods. Therefore, there is a need for targeted policy measures encouraging farmers to engage in the sustainable management of natural resources, and to preserve environmentally valuable habitats and countryside.

The group underlines the important potential of agriculture in providing public goods. In this respect, particular focus needs to be given to establishing sustainable farming practices and to ensuring continued land management in areas where marginalisation and land abandonment are a risk. Countering these risks, the group argues must be the focus of policy measures that seek to deliver public goods in line with societal demand.

Figure 6 – Selection of public goods considered by TWG3

Examples of public goods

1	Agricultural landscapes
2	Farmland biodiversity
3	Water quality
4	Water availability
5	Soil functionality
6	Climate stability – carbon storage
7	Climate stability – greenhouse gas emissions
8	Air quality
9	Resilience to flooding and fire
10	Rural Vitality

Source: ENRD TWG 3 – Public Goods and public intervention.

Potential of rural development policy

Based on a review of 88 national and regional RDPs, the group found that out of the 38 measures available for co-financing from the European Agricultural Fund for Rural Development (EAFRD), 31 measures aimed to encourage rural vitality, 30 aimed to benefit agricultural landscapes, and 29 to benefit farmland biodiversity. Many of these measures have the potential to deliver environmental public goods in particular.

EAFRD measures with the potential to deliver public goods were divided into three broad categories:

- *Area-based payments* that provide incentives to farmers to carry out beneficial land management practices (e.g. agri-environment measure, natural handicap measures) or facilitate the implementation of mandatory Natura

2000 measures by offering compensation for area-specific economic disadvantages;

- *Investment aid* that provides assistance with the costs of physical capital investment (e.g. the farm modernisation and infrastructure development measures) and grants for funding other activities in rural areas, such as farm diversification or tourism activities;
- *Measures that provide advice, training and capacity building* to improve human capital.

Targeting sustainable land management

The most significant proportion of total planned expenditure in all the RDPs relates to the area based land management measures. These measures tend to focus on maintaining sustainable land management practices, which benefit farmland biodiversity and agricultural

landscapes in particular, with some measures also focusing on water quality, soil functionality and carbon storage.

The working group concludes that, while these measures address the risk of land abandonment and encourage sustainable practices, there is also considerable scope for more focused/targeted options to be used to enhance and restore degraded areas or to focus on the needs of specific species/habitats, and for these to be targeted at particular areas.

Promoting synergies

A range of measures also exist which provide support for investments in infrastructure that has the potential to improve the state of a range of environmental and social public goods. While the primary objective of some of these measures is largely economic (improving the competitiveness of the





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agricultural sector), they also deliver benefits for the environment, particularly as regards areas such as water quality, soil functionality, water availability, and reductions in greenhouse gas emissions. However, the working group believes that more emphasis should be given to improving design and targeting in this respect.

Support for capital investment can also contribute to rural vitality, either by helping to maintain the economic viability of farms or by providing opportunities for diversification, thereby creating new economic opportunities in rural areas.

A concern, however, is that measures targeting economic, environmental, and social objectives do not always do so in

a mutually reinforcing manner. Capital investment aiming to enhance the competitiveness of farming can conflict with environmental priorities, and some examples of conflicting impacts were found with regard to biodiversity and landscape in particular. This highlights the need to strike the right balance between the different objectives of Rural Development measures and for appropriate and effectively enforced safeguards to be put in place.

Building knowledge and capacity

Knowledge is an important driver of behaviour and the working group found that advice, information provision and training all have an important role to play

in encouraging farmers to apply sustainable farming practices. Expenditure on measures aiming to enhance human capital and knowledge transfer is still limited in all RDPs and the working group underlines the importance of increasing the budgetary allocation in this respect. Particular attention should be given to actions which help to convey information on the relationship between land management practices and the environment and efficient ways of increasing agriculture's positive environmental contribution.

Spin-off benefits

The working group also discussed the importance of spin-off benefits associated with rural development measures

focusing on the delivery of environmental outcomes. These measures can have indirect socio-economic impacts, by stimulating employment, tourism and the production of local products, as well as through building capacity amongst farmers and other local actors. This in turn helps to support rural vitality.

Targeting essential to securing sustainable outcomes

With € 153 billion allocated to rural development over the 2007-13 programming

period, including national co-financing, it is clear that the design, targeting and delivery of these programmes is an important means of supporting the maintenance or improvement of many environmental and social public goods.

The present suite of RDP measures contributing to the provision of environmental public goods and rural vitality comprises some that are aimed at specific targets, such as agri-environment schemes, while others concern a wider range of objectives, such as semi-subsistence farming or farm modernisation. The

working group concludes that, achieving satisfactory results and an efficient use of resources requires particular efforts to improve the targeting of measures, considering the possible synergies among measures. Objectives need to be specified precisely, and particular efforts are needed to target the use of these measures on specific public good outcomes in order to deliver enhanced benefits.



A view from the chairman

TWG3 is chaired by **Martin Scheele**, who heads up the Environment, GMO and Genetic Resources Unit at the European Commission's Directorate General for Agricultural and Rural development. Here he gives some further insights into the work of the group:

The working group's conclusions suggest that the delivery of public goods requires policy measures as demand will not happen via markets alone. Will this not consign European agriculture to a permanent state of dependency on public funds instead of striving for market competitiveness?

On the one hand, farming in the EU must of course be responsive to market signals. But certainly, if we left everything to market signals, we would be left with a pretty stark picture: intensification in some places and yes, land marginalisation and abandonment in others, and society in general would not be happy about it.

In other words, the farm sector would still provide private goods for the market but the provision of public goods (for example, care for the countryside) would fall dramatically. This is hardly surprising: if public goods aren't paid for, they won't be provided! But let's look at the issue more positively. There are lots of public goods which can be provided through policy measures. But of course we need to design the policy well!

If such ongoing intervention is to become part of EU agricultural policy, how do you think this could be acceptable for EU taxpayers, already suffering from the effects of the economic crisis?

Most people understand that nothing comes for free! So we just have to explain to them how that fact applies in this case. We will keep paying for the private goods which farmers produce – like food and raw materials – out of our wallets when we go to the supermarket. But public goods – like good management of natural resources and care for the countryside, biodiversity and habitats – must also be paid for, through policy mechanisms. These public goods will simply not be provided without a well-funded policy. Of course, that policy must provide the best possible value for money.

From your participation in TWG3 what conclusions do you draw on the future of EU farming?

My belief now is that the EU's farm sector has the potential to hold its own in the market place as a provider of food and other private goods, while also caring for the countryside, managing natural resources, and in many cases continuing to play a strong role in rural society. If we want it to fulfil that potential – especially with regard to the public goods that society wants – we need a strong, well-designed policy.



The Thematic Working Group on Public Goods

The Thematic Working Group on Public Goods (TWG3) is one of four thematic working groups established within the framework of the ENRD. The 12 member group brings together experts from across the EU, including from national ministries, universities and research centres, NGOs and stakeholder groups, as well as from the European Commission itself. The work of the TWG3 began in April 2009 and concluded with a seminar, supported by the publication of a report on public goods in agriculture, on 10th December 2010.

Further details at:

http://enrd.ec.europa.eu/thematic-initiatives/twg3/en/twg3_home_en.cfm

EN RD CONTACT POINT



Developing Estonia's semi-natural habitats as public goods



Pille Koorberg, head of agri-environmental monitoring bureau at the Estonian Agricultural Research Centre, has worked for the past 10 years as an independent advisor on rural development issues. She is a member of several working groups, including the ENRD Thematic Working Group (TWG 3) on ‘public goods and public intervention’.

The evaluation of agri-environmental (AE) measures has been a key part of Ms Koorberg's work at the Estonian Agricultural Research Centre (ARC). She provides data for Ministry of Agriculture colleagues and other government ministries on the impact of the policy measures on the environment of rural areas in Estonia. Her bureau is also responsible for the coordination of evaluation of all axis 2 measures from the Estonian Rural Development Programme (RDP) focusing on the environment and land management (e.g. the Agri-environment scheme, support for less-favoured areas, Natura 2000 payments etc).

A key focus of her work is on developing the indicator for high nature value (HNV) farming for Estonia. The concept provides new opportunities for identifying and safeguarding valuable areas and traditional farming activities in Estonia. But there are problems which need to be addressed – i.e. concerning actual land use structure, or related to Natura 2000 – the EU's network of nature conservation sites.

During the ENRD TWG 3 discussions on public goods Ms Koorberg sought to highlight some of Estonia's most significant public goods provided through agriculture, such as semi-natural habitats (wooded meadows and pastures, alvars, coastal

meadows, alluvial (flooded) meadows etc). Her aim was to demonstrate how these public goods are currently supported through EU Rural Development Policy from the perspective of a smaller Member State like Estonia.

Land use structure

In order to understand farming in Estonia today, she says it's important to look at the farming and land use structure in general – agricultural land forms less than 20% of total area in Estonia (one half of its territory comprises forests, nearly a quarter is covered by bogs) and is rather unevenly distributed. Also, agriculture is not the main activity for most rural people, but there has always been a combination of farming and forestry activities: *“Fields and agricultural practices ‘in the middle of forests’ have completely different functions and need handling differently”*, Ms Koorberg says.

Ms Koorberg believes that in the current situation in agriculture the sustainable provision of public goods is not assured. For example, instead of grazing land or producing grass for feed as a part of normal management practice, she says that: *“Grass is just chopped and left in the fields without trying to link this activity with an overall farming concept!”*

Although the land use situation has been significantly improved in recent years, mainly due to several support systems, she says there are still threats to land abandonment that are bound to occur after implementation of the CAP changes.

This applies especially to those areas currently maintained only because of the support system – e.g. semi-natural habitats, where production can never be competitive, if left to market forces. But it also applies to areas that are maintained to be eligible for SAPS, rather than for production purposes. *“Decreasing support levels and declining rural vitality (e.g. lack of investment in these areas) make them very vulnerable to abandonment,”* Ms Koorberg warns, *“Supporting maintenance and development of infrastructure (especially in marginal areas) is crucial”*- she says.

HNV farming in Estonia

Developing the HNV farming concept is still “problematic” in some cases, because of a lack of quality data sources, she says, explaining that the actual land use structure is only well known for areas that are registered under the land parcel identification system (LPIS) and agricultural support system (IACS). Not all agricultural areas in Estonia, however, are considered as utilised agricultural areas (UAAs) and reflected under the IACS/LPIS.



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For example, during the period 2004-2005 “quite a significant share” of woodland pastures and woodland meadows, particularly in western Estonia, were excluded from receiving CAP hectare payments because they didn’t meet the SAPS requirements related to normal production land (e.g. they had more than 50 trees/bushes per hectare etc). *“This resulted in excluding those areas from support and the land register systems, but not immediately from actual use by the farmers”* adds Ms Koorberg.

Estonian farmers have been sometimes “confused” by EU rules which exclude areas that are very directly related to the provision of many public goods. *“Traditional farming is not valued enough through different policies – species-rich wooded meadows have historically not been managed because of nature conservation purposes, but they are by-products of traditional farming systems”* explains Ms Koorberg.

Other challenges

While semi-natural habitats are the most clear-cut element in the HNV farming concept, there are also still “significant shortages” in terms of levels of support for those areas through policy instruments at EU and Member State level. More and more farmland is managed with minimum level (less and less grazing etc.) because there are not enough people living in rural areas, she notes. Ms Koorberg suggests more efforts should be targeted at encouraging people back to rural areas via supporting day-to-day life (e.g. infrastructure, schools, shops etc).

Another challenge is that only semi-natural habitats in Natura 2000 areas are considered as supported HNV areas in the current Estonian RDP context. Yet according to several data sources, there are some 100 000 hectares of semi-natural habitats in Estonia including the areas that need restoration. Of this, only 73 000 hectares are included in the Natura 2000 network, and the maintenance of only 23 500 hectares was supported within the framework of RDP in 2010.

The Natura 2000 network is a priority. But there are other important areas that have HNV (e.g. further semi-natural habitats and especially important are mosaic agricultural landscapes with small fields and abundant landscape elements). *“It is important to also support farmers outside the Natura 2000 network so as to encourage the creation and maintenance of diverse agricultural landscapes in an environmentally friendly way”*.

Finally, Ms Koorberg says, more needs to be done, especially in terms of communication, to change people’s perception of land management in Estonia: *“Because of our history and low/ negative image of farming, rural areas aren’t attractive enough to young people... Farmers’ identity is still strongly linked with producing a product, rather than selling a service or an image”*. She suggests that besides competing on the food market, Estonia should start marketing its products and the touristic values of its countryside on the basis of the public goods delivered by farming such as the high species richness of its meadows and its valuable landscapes.

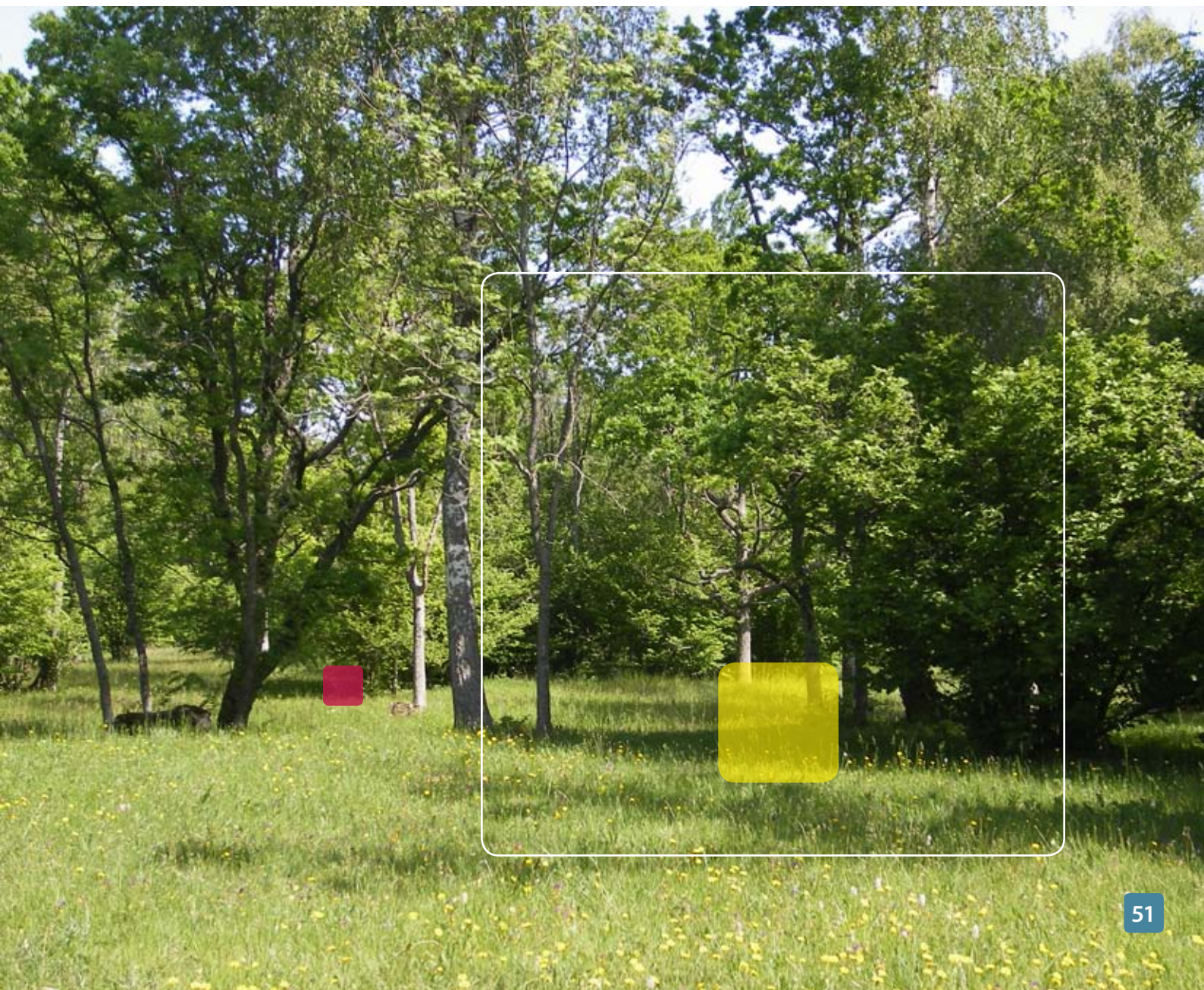
“ ...Estonia should start marketing the public goods delivered by farming such as the high species richness of its meadows and its valuable landscapes... ”

Pille Koorberg, Estonian Agricultural Research Centre

Useful links

Estonian Ministry of Agriculture
<http://www.agri.ee/?lang=en>

ENRD Thematic Working Group 3 `Public Goods and Public Intervention`
http://enrd.ec.europa.eu/thematic-initiatives/twg3/en/twg3_home_en.cfm



Promoting quality of life in rural areas of Greece





Fotini Epiphaniou is municipal councillor for a peripheral municipality in Greece, whose commitment, drive and persistence has contributed to restoring the wealth and heritage as well as improving the quality of life, in an area that suffered massive destruction as a result of natural disasters. Ms Epiphaniou has supported initiatives which promote rural vitality in Greece, including an innovative system for waste storage and treatment in rural areas, a rural museum, cultural centre and theatre, cultural events and seminars, as well as agro-tourism projects.

The background

A frequent challenge in peripheral rural areas is the introduction of modernisation and innovation in the implementation of rural development measures with a view to providing public goods, such as cultural heritage aspects of landscapes, water quality and other non-farm related investments which enhance rural vitality.

Nevertheless, the small municipality of Argalasti in mount Pilio, home of the centaurs in Greek mythology and close to the famous port where Jason and his Argonauts started their trip in their quest for the Golden Fleece, is an example of how renovation and innovation in the provision of public goods can be achieved as a result of personal perseverance in the identification and prioritisation of rural development needs and the pursuit of funding opportunities.

The municipality of Argalasti suffered from floods and forest fires during 2006 and 2007, which produced immense damages in the fishing village and resulted in large extensions of fields being totally destroyed by fire. Adding to these unexpected events, the neglect of traditional heritage and service infrastructure combined with a rather traditionalist approach to innovation intensified the decline of the rural vitality of the area.

The achievements

During the time that followed these disasters, rural development projects worth around five million euro were implemented in the area under the guidance and coordination of the municipal councillor, Ms Epiphaniou. The interventions focused on improving the quality of life of local inhabitants and promoting the area as a tourist attraction once again.

Innovation was introduced in the area with the design and setting up of a new digital library, addressed primarily to the young population of the area. The objective was to use rural development funding to introduce a new way of research and studying support in local schools, whilst also making the library available to the general public, especially to tourists during the summer months. According to Ms Epiphaniou, *“special care was given not only to the scope and content of the digital library but also to its physical location”*, a renovated attractive building in the village square, as well as its promotion through the municipality’s website, a tourist guide and signposting. Synergies were also sought with experienced institutions, namely, the digital library of the region’s capital Volos, which provided technical assistance through studies and the installation of equipment. The digital library complemented and enhanced



the provision of educational and tourism services thus generating social benefits for the area and contributing to its vitality.

Environmental public goods were also provided through the establishment of a waste storage system which covers the wider South Pilon area, extending beyond the municipality's limits. Although the waste storage unit has only recently started functioning, biogas produced will be collected and used in the future. Further innovation in the area linked to the production of renewable energy is evident in the design of energy generating windmills. They will be established by private companies that will supply the municipality with 100 000-200 000 euro worth of either energy or income. Ms Epiphaniou claims *"this will enable the municipality to cover a significant proportion of its energy consumption costs"* while *"securing lower pollution levels"*.

Further provision of environmental public goods relates to water quantity. A persistent problem of the past, namely water shortage, particularly acute during summer months, has been addressed with new water storage units, drilling wells and the replacement of water pipes with modern ones. As a consequence, the local population and tourists alike, now profit from a steady and improved water supply.

A number of non-farm investments promoted rural vitality by supporting the improvement of public service infrastructure and cultural heritage landscapes. These include the restoration of damaged public spaces and buildings, the renovation of churches, the installation of lighting in seaside villages as well as the lighting and promotion of heritage elements such as traditional squares, fountains, bridges

and paths. Improvement works have not only brought back and increased the tourist flow into the area, but have significantly improved quality of life for the local population. In addition, farmers can now access their fields through new and better rural roads or enjoy leisure time in public spaces previously "littered" by illegal activities such as drug consumption. Furthermore, local school children can now benefit from new infrastructure such as school toilets (non-existent in the past) or gates and fences which ensure more safety in playgrounds and schools.

Local tradition and culture has always been at the heart of rural development in the area, albeit somehow neglected in recent years. New projects in this field reinforce cultural growth, according to Ms Epiphaniou, *"a driving force for rural vitality"*. Such projects promote existing



FOTINI EPIFANIYOU

“ Commitment to serve and promote the area is what counts, not commitment expecting local recognition and titles ”

Ms Epiphaniou Epiphaniou, Municipal Counsellor, Argalasti, Greece

architectural heritage, including the restoration and renovation of a traditional school building, currently used as an exhibition centre and popular art museum.

The lessons learned

The achievements of such distinct rural development initiatives in the municipality of Argalasti demonstrate the multifaceted processes through which rural development contributes to the provision of public goods.

When asked what advice Ms Epiphaniou would give to others in peripheral rural areas for the improvement of public services and the promotion of rural vitality, she identified four key aspects that underpin her own qualities as a supporter of rural and local development. First, the identification of rural development needs and their prioritisation; second,

the elaboration of integrated and mature studies early on that will serve as a sound basis for the pursuit of funding; third, the persistent and continuous search and follow-up of funding opportunities; and fourth, transparency both in the design and implementation phases, including effective communication with local actors and players.

Ms Epiphaniou is a living example of the virtues a rural citizen should possess: *“commitment to serve and promote the area is what counts, not commitment expecting local recognition and titles”*. She stresses the importance of having a *“daily presence in local rural life”* and engaging in a constant quest for achieving goals. The profile of a distinguished rural citizen should also include communication skills in order to effectively communicate on a continuous basis with local citizens and therefore bring their needs to the

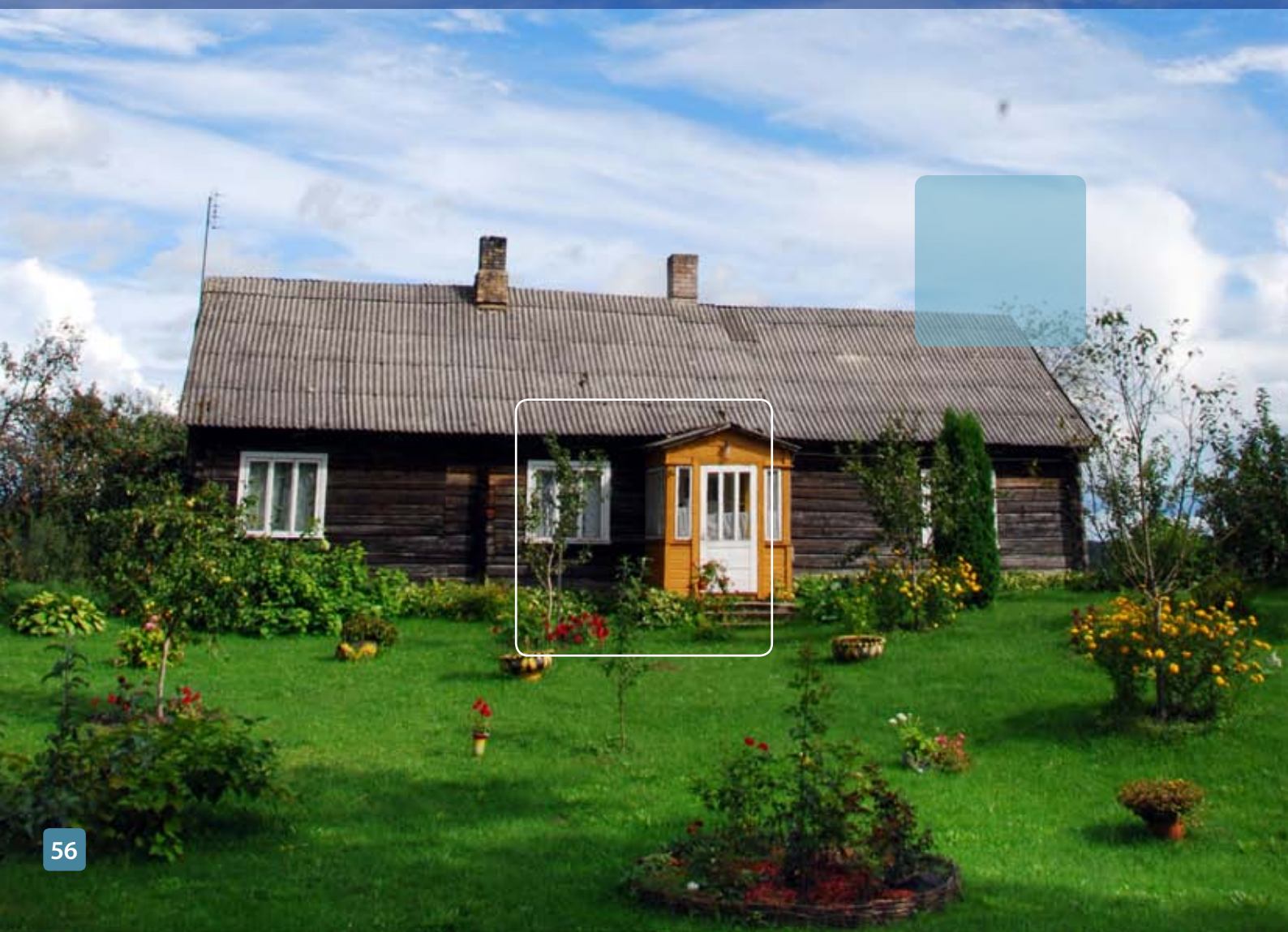
forefront of new rural development initiatives. Communication should address both local players involved in implementation as well as regional players (prefecture and regional authorities) whose role is key for the identification and pursuit of funding opportunities and the implementation of projects which promote a healthy and attractive environment and -more generally- *“rural vitality”*.

With a four year mandate, Ms Epiphaniou has learned that the way forward is to *“spend the first couple of years on studies and pursuit of funding and the remaining couple of years on implementation”*. She claims that *“keeping a close eye on any works until its completion”* is the only guarantee that implementation will be completed on time and in accordance with the rural development objectives established.

MILTADIS GAITANAS



Recognising regional diversity is key for rural development policy - TERESA Project





Europe's agricultural policy makers and stakeholders are benefitting the findings of an EU research project, which looks at types of interaction between the environment, rural development, society and agriculture in the EU. The TERESA project, co-funded under the EU's 6th Framework Programme, and involving 12 research institutes, has made some progress in uncovering some of the complex interactions between the environment, the rural economy and socio-economic issues.

The overall aim of TERESA is to improve policy making for sustainable and integrated rural development. Importantly, it identifies a current deficit in the ability of agricultural, rural and regional policy to recognise and animate these interdependencies. However, it provides various potential policy recommendations to address these issues. As such, the goals of the project are to:

- Identify interrelationships in rural areas predominantly between farming activities, rural economy, rural society and the environment.
- Develop an 'agent-based model' to demonstrate the typical interrelations between agriculture, the rest of rural economy and the environment, in different types of rural areas in Europe, as well as the impact of policies on their development.
- Assess and identify different integration policies regarding their effectiveness in generating public goods through farming activities and rural development.

Regional Diversity and interaction

Given the focus of TERESA's research on uncovering rural interdependencies, the project explored ways in which regions could further strengthen their activities towards a 'cooperative and territorial' model which encompasses networks of activities, localities and/or ecosystems, so as to engender multiple approaches to integrated agriculture and rural development. The outcomes of this kind of approach include products and services with broad economic, social and environmental benefits such as tourism and renewable energy production.

In their search for empirical evidence of tangible rural interrelationships, the research team undertook a 'cluster analysis' of European regions, which enabled them to identify specific regional needs and different supply chains in certain regions. The supply chains were then further explored through eleven case

studies, examining two types of products: specific products which are identified by their territory (e.g. origin labelled products); and standardised products which tend to be conventional items whose consumption may vary across local, national or global markets.

Consequently the analysis succeeded in formulating a 'typology' of eight EU rural regions. Each region is distinguished by their specific characteristics which include: the types of products they produce; the length of their supply chains; the distance to and extent of urban areas; employment levels and profitability of agricultural activities; the extent of the integration of agriculture into the regional development of rural areas; the nature of agricultural production, whether intensive or extensive; population density and level of out-migration; the extent of land and other resource conflicts; cooperation or competition with other sectors; the level of economic development; the extent and role of high nature value



T. HUDSON

features; the significance of tourism and the role of local networks etc.

Within each of the eight rural regions identified, the research team analysed how interactions and interdependencies between different agricultural network structures and the rest of the rural economy affect rural development. Sebastian Beiglböck, from the Austrian Institute for Regional Studies and Spatial Planning makes clear that this analysis *“demonstrated that the interplay of rural actors and the decisions they take play a very vital role for rural development and should be taken into account when designing strategies. This would also strengthen the local level in rural development policies”*.

Policy recommendations including greater provision of public goods

As a result of their extensive work, the research team developed a series of policy recommendations and strategies for fostering integrated rural development.

Firstly, the need to design a common and enlarged definition of rural areas and rural development generally was identified, with the overall aim of encouraging the adapting of EU policy to taken current economic and social dynamics of rural areas into account. This includes the consideration of new connections between rural and urban areas, stakeholder

networks, new environmental concerns (biodiversity losses and climate change), governance and self-empowerment of rural areas, trends in supply chain organisation etc.

Secondly, in terms of designing better targeted policy with greater impact, rural territories should be differentiated through a typology of rural regions, which acknowledges their diversity, the type of regional development required and links policies with their specific needs and attributes. This would ensure policy addresses the broader needs of EU regions and could, for example, include a unique set of policies for ‘rural regions in transition’, ‘tourism based rural areas’,

“ The positive effects would lead to a better integration of agriculture with the goal of sustainable (environmental, economic and societal) rural development ”

Phillippe Fleury, Researcher at ISARA-Lyon

'peri-urban rural areas' and other types of rural regions.

Thirdly, the ongoing shift away from market support provided through the Common Agricultural Policy (CAP) requires investment and further capacity building, to improve the functioning of the rural economy. Policy interventions therefore should seek to develop regional capacity such as regional supply chains and cooperative regional systems. This could be achieved through the setting up of 'upper level' local action groups (LAGs) which link wholesalers with representatives from the city and the countryside.

Fourthly, multi-functionality and the provision of public goods will have to play a more central role in development strategies. As such, the provision of public goods through agricultural

activities should receive more attention. Interestingly, the research team confirmed that actions which lead to sustainable resource consumption can be very beneficial economically. Finally, the notion of territorial projects and contracts was promoted to foster a 'place based' approach for the support of public goods, including environmental and social concerns, as well as for the development products covered by EU quality schemes.

A new policy for rural development

The outcome of TERESA suggests that if different regions are better addressed according to their broader needs, the policy results will lead to a more sustainable future. Regional policy and the CAP could then further shift away from top down subsidy

approaches to a more broadly integrated approach, which recognises the multiple interdependencies which exist in rural areas and which better supports their development. Phillippe Fleury, Researcher at ISARA (Engineering school in agriculture, alimentation, rural development and environment) in Lyon, France believes that *"the positive effects would lead to a better integration of agriculture with the goal of sustainable (environmental, economic and societal) rural development, along with greater regional diversity and greater purpose from regions to define their own future"*.

More on the TERESA project can be found at: <http://www.teresa-eu.info/>

RALUCA BARBU





The possible impact of CAP reform post 2013 Top-Mard project



A project which focused on moving towards an EU policy model of multi-functionality of agriculture and rural development (TOP-MARD) ran from March 2005 until June 2008. It set out to examine how agricultural multifunctionality affects the sustainable development of rural regions, and how different policy reforms might influence this relationship.

The project involved 11 research partners from different European countries and one of the 11 European case studies involved an analysis of links between the European Model of Agriculture (which is focused on multi-functional agriculture) and rural development policy. This case study targeted the UK's Caithness and Sutherland area, a remote rural part of Scotland's far north territory. The region is an example of how the concepts of multi-functionality of agriculture and pluri-activity merge in reality. Caithness and Sutherland have a long history of making an effort to support socio-economic regeneration, and these continue through bodies such as the Caithness and Sutherland Leader groups, among others.

In particular, the project analysed how change in land use alters the local and rural economy and how different factors (e.g. demography) are affected by such changes. The research was based on a

model which provided the possibility of examining different policy scenarios over approximately 20 years and to compare these with current policies.

More specifically, the model of analysis used by TOP-MARD - called 'POMMARD' (or Policy Model of Multifunctional Agriculture and Rural Development) encompasses the complex inter-relationships between the different public and private functions of farming and farm households, regional economic development, quality of life, demographics, and public policies.

The preparation of the project and building of the model and its adaptation to 11 regions involved team work, including the collation of public data sets, previous research, and surveys of farmers, rural entrepreneurs, households and regional experts. Regional stakeholder groups provided advice, contacts, and

feedback at every stage, and played a key role in discussing and standardising results.

How POMMARD works

According to the POMMARD model, policy changes affect farmer behaviour through changing incentives and disincentives, as well as altering 'external' regional financial flows. Therefore, farmers adjust land use and production systems, hence altering commodity and non-commodity production, inputs used, and incomes. These, together with changes in external financial flows, impact the regional economy and quality of life, as well as regional attractiveness for tourism. As a result, changes in the regional economy (through shifting labour demand) and quality of life alter migration decisions. The ultimate impact of any policy change is therefore traced through to a set of outcome indicators reflecting changes

in economic, socio-demographic, quality of life, agricultural and environmental variables.

The policy scenario analysis and conclusions

The main focus in TOP-MARD was on the possible impact of CAP Reform post-2013. The main questions addressed regarded farming, regional economies and quality of life, and regional natural environments in different contexts if there is (a) a major reduction in the Pillar 1 budget, without reallocation to Pillar 2, or (b)

a reallocation of a significant part of the Pillar 1 budget to Pillar 2 either through 'modulation' or otherwise, with or without (c) major reallocations between the axes within Pillar 2.

In general TOPMARD finds that the problem with shifting resources from Pillar 1 to Pillar 2 is that national co-financing is required, and this discriminates against poorer countries and regions. National and regional allocations to Pillar 2 should therefore move in parallel with any such reform, and remove links to previous funding from either Pillar.

The integration of Non-Commodity Outputs (NCOs), quality of life, and demography (including migration) within a system dynamics model is unique, and although some regard POMMARD as reflecting the limits of large-scale modelling when confronted with the diversity and complexity of rural regions in Europe, others consider it as a first step in developing more realistic models.

Furthermore, it is notable that POMMARD does not always produce the same results (and hence policy 'advice') as more conventional analysis. For example, most





“ It is at regional and local levels also that agricultural rural policies can be best coordinated with national and EU regional, social and environmental policies, and better coordination is greatly needed at this time ”

Dr John Bryden, TOP-MARD coordinator and research professor, NILF

conventional analyses of agricultural policy changes, involving reduced subsidies to farmers, almost invariably conclude that farm and regional incomes will decline. However, the POMMARD model results show how - and why - this is not necessarily the case when the *whole* regional system is considered.

The approach used by TOP-MARD of a system dynamics model raises new issues and questions, requiring new and better data, and improved understanding

of on-the-ground responses to policy and market changes, as well as on the effectiveness and efficiency of policy implementation. The new policy concerns, as well as the increased diversity of rural regions in Europe, seem to demand the development of more devolved, complex, holistic and dynamic modelling of sustainable rural development, and related policy outcomes.

Research in this field is ongoing (without EU funding) with the Royal Norwegian

Ministry of Agriculture having commissioned NILF (Norwegian Agricultural Economics Research Institute), where Dr John Bryden, TOP-MARD project coordinator, is currently a Research Professor, to develop a white paper on multi-functionality in agriculture and rural development policy.

More on the TOP-MARD project can be found at:

<http://www.abdn.ac.uk/~pec208/>



Views on public goods in agriculture



The increasing importance of public goods in agriculture and rural development has sparked an EU-wide debate, and a host of different organisations representing different interests have been able to voice their opinions on the matter during these discussions.

Farmers have many roles to play. They are the producers of affordable food, contributing to global food security, and they are the standard bearers of quality, safeguarding Europe's extraordinary range of high value traditional produce. More and more their role as providers of public goods is also now acknowledged.

They may be relatively small in number but farmers look after a huge proportion of the land from which humans must obtain not only food but also environmental services such as clean air and water. Farmers are the stewards of vast areas, and are under pressure to ensure that their stewardship delivers the maximum level of public goods, in addition to guaranteeing food quantity and quality.

Pressure is being applied by different groups. Consumers increasingly want food to be produced in ways which are seen as less harmful and ideally more friendly to the environment.

Governments are highly conscious of the threats posed by climate change, environmental degradation and biodiversity loss, and see agriculture as a key sector that can help head off those threats. Campaign groups continually push farmers to be sustainable in their production.

Trees Robijns, EU agriculture policy officer with BirdLife International, says that *"society at large is going in a green direction. Farmers are one of the basic groups who can provide ecosystem services. It is not only about what is growing in the fields and what they can sell afterwards"*. She argues that *"a range of species have developed in agricultural landscapes"*, and protection of this heritage should also be part of the farmer's remit. *"It's easy to destroy but it takes a long time to build it back up"* she concludes.

A question of economics

The debate about public goods in agriculture quickly becomes an economic

discussion. Ms Robijns adds that the main pillar of BirdLife International's campaigning on the issue is *"public money for public goods. The environment is a public good. If we want farmers to provide public goods they should be remunerated for this. We look at it as a contract: farmers engage with society in a contract"*.

This is a view that farming groups can endorse. The French National Federation of Farmers' Unions (FNSEA – *Fédération nationale des syndicats d'exploitants agricoles*) says that the concept of public goods is *"often reduced in the end to the single concept of 'environmental services'". But to us it is much broader, ranging from food security first, to air quality, water quality and soil, but also traceability of products, and our role in the planning and preservation of rural areas. We are sometimes accused of not providing sufficient public goods, in relation to society's demands. There are greater and greater expectations, but at the same time, society does not pay more for food. We must find*

a balance: more public goods, but subject to the availability of additional resources”.

It is a view echoed by COPA-COGECA, the representative body in Brussels for farmers and agricultural cooperatives. COPA-COGECA states that *“we are clearly not opposed to the idea of prioritising public goods but this should not make the lives of the farmers impossible. European farmers already work hard. So if we place more demands on them, they will require greater support”.*

CAP considerations

These considerations feed into the discussion about the future of the EU’s

Common Agricultural Policy (CAP), though that is only one part of a broader conversation about how the provision of public goods should be paid for more generally. Mr Buckwell says *“people won’t pay for [public goods] through food prices. EU and world citizens are not paying the real social cost of their food”.*

He adds that around half a percent of Gross Domestic Product (GDP) should be dedicated to environmental remediation and management, and that this does not sound much when one considers, for example, that many developed countries commit between 1.5% to 4% of GDP to military spending. Nevertheless, he says, increasing expenditure on agricultural

public goods will be a “big jump” for society. *“The only remedy is either to jack up food prices, or to do it through taxation. I would argue that putting up food prices is a regressive tax, though some price rises will be needed”.*

COPA-COGECA argues that farm incomes should not be compromised by changes to the CAP, because *“without money, you cannot do more”.* The organisation’s position is that *“food security must remain the primary public good and the main condition for payment of aid [to farmers]”.* Because of this, the first pillar of the CAP, which deals with income support and market safety net measures, should not be made subject to additional

Useful links

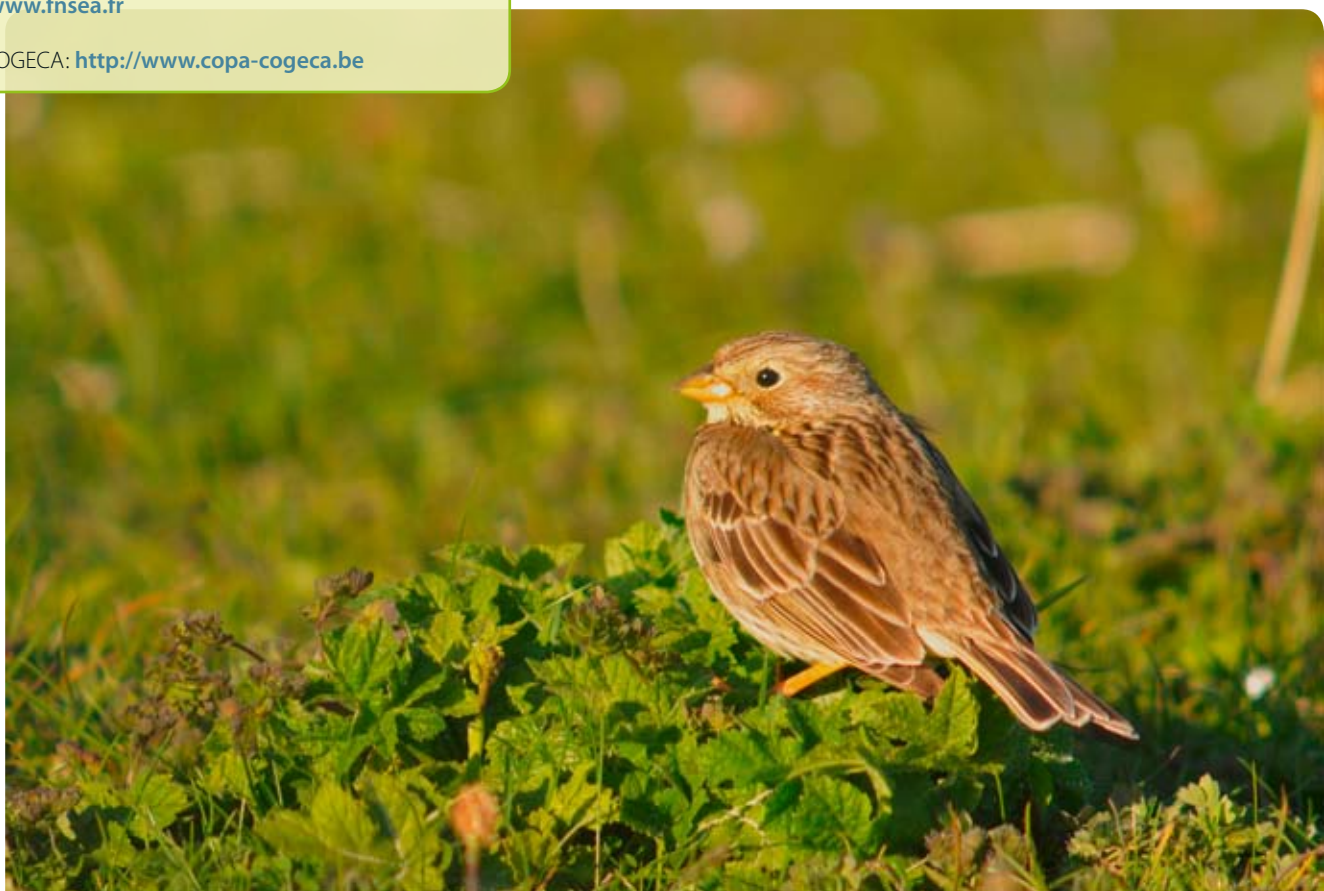
BirdLife International: <http://www.birdlife.org/>

Country Land & Business Association: <http://www.cla.org.uk/>

Fédération nationale des syndicats d'exploitants agricoles: <http://www.fnsea.fr>

COPA-COGECA: <http://www.copa-cogeca.be>

JOHN CAREY



conditionality linked to the provision of public goods. However, the CAP's second pillar, which deals with rural development and environmental management, could be strengthened. *"The second pillar has more flexibility; we can use it for the required additional public goods"*.

Changes ahead

BirdLife International's Ms Robijns says that agricultural subsidies can be more explicitly linked to the provision of public goods. *"If farmers want to keep the budget, they need to have a good rationale for it"*, she says. *"There is an environmental problem out there that needs to be fixed"*. But, she adds, in the long term *"it's about*

the functioning of the system. There are a lot of good agri-environmental schemes that work". Sustainability, she argues, is not about *"more rules"* but about *"basic good economic practices"*. She points to the example of Hope Farm, which is managed in England by the Royal Society for the Protection of Birds. Farmed sustainably since 2000, the farm has made good profits, while substantially increasing its farmland bird population.

Aiming for the greater good, and the provision of more public goods through agriculture will require *"a whole change in thinking"*, Ms Robijns concedes. Farmers should be *"paid for doing sound policy"*, and should *"spend on the right thing and*

have enough to make it work". Changes to the CAP can help with this.

FNSEA says that changes to the way Europe does agriculture must be carefully thought through. *"If the direction of the future CAP should be resolutely environmental, then let's go!"* the organisation says, adding *"let us find new ways to implement it without removing the support that is now devoted to the economic viability of farms"*.

Land owner and manager's perspective on public goods in agriculture

Allan Buckwell (European Landowners' Organisation, Chair of Policy Group)

It may sound like rhetoric, but rural landowners genuinely are concerned about sustainable development – in all its economic, environmental and social aspects. They really do want to pass on their land to the next generation, in at least as good condition as they inherited it themselves. However, they face the tremendous challenge of just how much we want from our land: primarily food of course, but also renewable energy, and these days a long list of other services: landscape and biodiversity protection, soil, water and climate protection and rural vitality too.

There are complex public and private interactions here. But we are increasingly realising that agricultural production depends critically on the condition of the environment. Conversely, the state of much of the environment depends equally critically on how we 'do' our farming. There are some really difficult tradeoffs here. The more intensively we can farm the land to produce the, still growing, demand for food, the less land we occupy for farming and the more can be managed for 'nature'. The trick is to try and find production systems which intrude less on the environment... and then incentivise their use.

So it has become quite clear that in order to deliver the high environmental standards demanded by citizens, that we have to find ways to incentivise the delivery of services, for which

markets do not exist – these are what we mean by the 'public goods'. It is equally clear that the main providers of these services have to be land managers. This is why the language of public goods is so useful. Once explained, it is a clear enough technical economic concept, but the language too can convey to citizens that it is not so strange that we might have to find ways, either through policies like the CAP or through private transfers, to pay farmers and other land managers to provide public environmental and rural community services for which their markets simply do not spontaneously manifest.

Once we embark on this venture – which we have been slowly doing for over a decade now in the EU, through a range of agri-environment and other measures in the CAP – it creates many more practical challenges. One is to persuade our international trading partners that paying farmers to provide public goods is a correction of market failures and not a distortion of markets. Another is to fit such EU-wide schemes into a workable common framework which can be applied in the very different conditions of the 27 Member States. This really is a multi-dimensional Rubik cube! We should not expect to find the perfect balance at once, but gradually evolve policy to do a better job. There can be little doubt that the reform of the CAP currently under active discussion will be a very important step in steering European land management down a path towards greater food and environmental security.

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The March issue of the EN RD newsletter 'Star@ News' is now available in English. This month we take a closer look at ICT in Rural Areas, visit Slovenia in the 'Country Focus' section and celebrate the launch of DG AGRI's Facebook Page! [Click here](#)
- 21 March, 2011: Turkish Cypriot study group visit EN RD Contact Point**
A group of Turkish Cypriot stakeholders, involved in the formulation of a Rural Development Policy in the northern part of Cyprus, visited the EN RD CP on 18 March, 2011. They were interested in EN RD activities including Leader, LAGs etc. [Click here](#)
- 11 March, 2011: Stakeholder survey on the future of pre-accession assistance (PAA2)**
DG AGRI has launched a stakeholder survey as part of a broader consultation process on the future of post 2013 pre-accession assistance in the area of agriculture and rural development (PAA2). All interested in this issue are invited to complete the survey. [Click here](#)
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Publications Office

ISSN 1831-5321



771831 532008