



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

18 - 20 April 2011



What role for public goods in the future of CAP?

[David Harvey](#) & Attila Jambor

Abstract

The European Union's Common Agricultural Policy continues to evolve. The public debate about its future post 2013 was launched in April 2010 and a formal Commission Communication on the future of the Common Agriculture Policy (CAP) was published in November 2010 (European Commission, 2010). The Commission's detailed legislative proposals are now expected in [October 2011](#). We focus here on one of the most important parts of the debate – public goods and the 'greening of the CAP'. A major rationale for the large sums spent under the CAP each year appears now to be centred on the provision of public goods. We review the Commission's proposals for the provision of public goods and raise questions about the apparent justification for the general approach. We question whether this logic properly appreciates the nature of public good problems and whether the apparently obvious solution – provision of compensatory payments from the public purse – actually solves any of the underlying public good problems.

Introduction

The European Union's Common Agricultural Policy (CAP) is currently under debate about the challenges it faces as well how to prepare it for the next multi-annual financial period. The [European Commission](#) has, as both expected and required, played a key role in framing the debate. It first launched a public debate in April 2010, inviting all possible stakeholders to join the discussion and share their views on the objectives and principles of the future policy. Lessons learned from the debate were summarised at a conference on the CAP post-2013, held in July 2010 in Brussels, which brought together the numerous contributions expressed during the public debate. The conference was also an important step in the Commission's preparations for its official Communication (EC, 2010) on the future of the CAP, which was presented on 18 November 2010. The purpose of the Communication was to suggest changes and to set priorities for the CAP after 2013 on the basis of the public debate and the various options and opinions expressed since the Health Check, the last stage of the CAP reform process. The Communication can be interpreted as a move to reorient the CAP towards a policy to meet the economic, environmental and social challenges that European agriculture and rural development face. Others, perhaps, might suggest that rather than re-orienting, the sun should be allowed to set on the policy (as in occident). Having arisen largely as a result of historical accident (being best fitted to its previous socio-economic and political conditions), and having shown remarkable resilience in adapting and adjusting to changing conditions, it

18 - 20 April 2011

has now become too fossilised and encumbered with its ancestral baggage to be capable of further sensible or sustainable evolution or reformation. In any event, the Commission had planned to publish its legislative proposals in July 2011, but this has now been effectively delayed until mid October.¹

This paper addresses one of the most important issues in the debate: public goods. Policy makers and stakeholders, in searching for a new and more legitimate rationale for the large annual sums spent on the CAP, have already focused on the provision of public goods as being such a rationale. There is a growing socio-political consensus on the need for public support for farming's green contributions and activities. But the logical or economic justification is less clear. We examine the alternative justifications, which have received limited criticism so far in the policy literature. Our paper is structured as follows. First, the public goods concept is outlined for the cases of public goods provided by agriculture. Second, policy tools to encourage the provision of public goods are reviewed, followed by the overview of current public goods support in the CAP. Part III reflects on the contents of the Communication, especially focusing on direct payments and public goods. These reflections provide the basis for identifying the major problems behind the "public goods provision concept", followed by some policy recommendations for the future. Part IV concludes.

The public goods concept

The theory of public goods is well-developed in the welfare economics and public policy literature, where the concept is characterised by non-excludability and non-rivalry. Non-excludability means that if the good is available to one person, others cannot be excluded from its benefits, while non-rivalry refers to the fact that a good consumed by one person does not reduce the availability to others. In other words, excludability determines whether or not access to ecosystem services can be rationed (and thus priced by a provider), while rivalry determines whether or not it should be (Farley-Constanza, 2010). A common example for public goods is street lighting or air as people cannot be excluded from breathing the air and one person's enjoyment does not reduce the enjoyment of others. The dimensions of non-excludability and non-rivalry define a simple matrix where public goods can be easily located (Table 1).

Table 1: Types of goods with examples

Dimension	Excludable	Non-excludable
Rival	Private goods (food, clothing)	Common goods (grazing, fish)
Non-rival	Club goods (cinemas, private parks)	Public goods (air, national defense)

¹ As reported in [Agra Europe, March 11, 2011](#), „Commissioner “Ciolos has pledged to carry out an impact assessment (IA) to test the effects of various CAP redistribution scenarios before working these into concrete proposals; the budget plans will lay out the total figure available per annum for the CAP, and DG Agri will seek to produce an IA which divvies up the money which is *actually* on the table. These time demands, coupled with the obligatory six-week period of inter-service consultation - during which other Commission departments scrutinise the plans - make mid-October the earliest realistic date for releasing the proposals, sources said.”

18 - 20 April 2011

The opposite of a public good is a private good, totally excludable and rival. A cup of coffee, for example, is a private good as its owner can exclude others from using it, and once it has been consumed, it cannot be used again. A good which is rival but non-excludable is termed common, such as deep sea fishing. This case is mainly visualised by the well-known example of the tragedy of the commons (although by no means all commons end in tragedy). The fourth element of the matrix consists of club goods, characterised as non-rival but excludable. These goods have various forms like cinemas or private parks, where those having enough money can enjoy the benefits of the provision without rivalry, subject to the capacity of the provision.

Under the free market system, private goods are supplied through market interactions, provided that there is an efficient functioning of the market mechanisms. However, these mechanisms do not function well in the case of public goods since consumers and users cannot be excluded from the benefits of the good but do not have full (selfish) incentives to pay for it. This usually leads to “free-rider” behaviour where everyone expects the public good to be supplied but no one wants to pay for it. However, providers (farmers or land managers) do not have an incentive to supply them without reward – a classical situation leading to undersupply. It follows that public goods have no observed prices and are difficult to measure in economic terms. While much of the current economic effort on the issue is devoted to establishing reliable estimates of the public’s willingness to pay for public goods (e.g. Kumar, 2010)², others (e.g. Norgaard, 2010) question this approach, suggesting in essence that the force of the bazaar may supplant the tragedy of the commons.

For specific public goods (e.g. climate stability, air quality, etc.), more complex mechanisms are needed to coordinate supply and demand. A critical issue here is the articulation of collective demand, which is often expressed in political targets to stipulate the level of provision required. There exist a number of policy tools to enhance the provision of public goods (see below).

Public goods provided by agriculture

Agriculture and the environment are inextricably linked as through farming practices. Agriculture has always played a major role in shaping the environment, while external environmental conditions also have their impacts on agriculture. Public goods provided through European agriculture can take the form of capacities or capitals (e.g. cultural landscapes) or services (e.g. resilience to flooding or fire). Public goods can also be classified as environmental (biodiversity, air quality, etc.) or social (rural vitality, food security). As to environmental public goods, there is significant variation in the scale at which they are provided across different farming systems.

Agriculture currently accounts for approximately a half of the territory of the EU-27 Member States. As a productive activity, it has always had a considerable impact on the natural environment. However, the technologies of the last two centuries, especially those developed in the last fifty years, resulted in the growth of harmful agricultural impacts on the environment. Searching for efficiency gains and increasing intensification have not been

² Kumar, 2010 is the first of a series of outputs from The Economics of Ecosystems and Biodiversity (TEEB) programme, hosted by UNEP, with the initial aim of valuing global natural capital.

**85th Annual Conference of the Agricultural Economics Society
Warwick University**

18 - 20 April 2011

without environmental and social costs. There is widespread evidence of adverse environmental impacts, resulting in, *inter alia*, loss of habitats, declines in species, air and water pollution and extensive soil degradation. Low intensity farming systems, in particular, are supposed to provide a suite of public goods, by maintaining and enhancing biodiversity and landscape and by having good soil and water management practices. In addition to these environmental public goods, agriculture has played an important role in Europe in shaping the cultural heritage and sustaining social capital in rural areas (Cooper et al, 2009). A wide range of economic activities such as rural tourism and recreation also said to depend on the existence and continued provision of public goods.

Multifunctionality of agriculture entered the policy agenda lexicon almost a decade ago, stressing the various roles of agriculture playing in rural areas. A common definition of multifunctionality used by economists is the joint production of commodities and public goods, implying that the term encompasses elements that range from private good provision to goods with public good attributes. Although 'multifunctionality' now seems to have disappeared from the CAP rhetoric, it is clear that the idea of certain forms and patterns of farming being worth preserving for their social, cultural and environmental benefits continues to be an important part of the CAP debate. The multifunctional role of agriculture provides several public goods as by-products to its market commodities (e.g. Romstad, 2002). Landscape management, biodiversity, wildlife habitat preservation and water-land-air management are all common examples of 'goods' provided (mostly as a by-product) by agriculture. However, the lack of a market to provide these public goods creates a need for public policy to intervene and an associated spending programme in order to support the farming systems which deliver these goods (Romstad, 2002). The delivery of public goods is still being used as a justification for the direct payments: "At the same time, the provision of a basic income payment to all farmers ensures the basic provision of public goods throughout Europe, by encouraging them to stay in farming" (EC, 2009, p.11).

Certain forms of agricultural production provide a wide range of public goods for the society. The most significant public goods associated with EU agriculture do not all share the same characteristics, though they are all linked to certain types of agricultural activities. Cooper et al. (2009), in a recent report to the European Commission, define and classify the most relevant public goods provided by EU agriculture as follows: agricultural landscapes; farmland biodiversity; water quality and availability; soil functionality; climate stability; air quality; resilience to flooding; resilience to fire; rural vitality; food security; animal welfare.

It is clear that these diverse public goods have different characteristics and also cater for different needs of European society. Some of them meet environmental needs, while others respond to social necessities. It is also evident that public goods associated with agriculture do not all share the same underlying relationship with agricultural production. On the one hand, the existence of certain public goods – such as landscapes or farmland biodiversity - is inherently linked to agricultural activity and possibilities to provide them through alternative land use practices are limited. On the other hand, in case of rural vitality or air quality, the provision is not necessarily dependent on agricultural activity and can also be provided by alternative forms of land use. Preparing for the future requires that the complexity of the system is recognised by agricultural policy, applying differentiated and targeted policies rather than seeking a one-size-fits-all solution.

18 - 20 April 2011

It is widely argued that provision of public goods provides a justification for public intervention in Europe (Cooper et al., 2009). This argument is usually underpinned by the special characteristics of agriculture such as the high level of interaction with the environment or its large share of the European land area and the fact that there is a shortfall in the provision of environmental public goods in Europe. The reason for this under-provision is that public goods are not supplied adequately through the market and without a so called “proper allocation mechanism”, public goods will remain at a lower level than desired by the society.

Policy tools for the provision of public goods

Various agricultural policy tools exist to encourage landowners to internalise the benefits provided by the natural capital on their property, encouraging them to provide public goods. These tools are well classified by Kemkes et al. (2010) into 5Ps – prescription, penalty, property rights, payments and public information (persuasion). Table 2, *(ibid)* defines the policy tools and their associated dimensions available for ecosystem service provision on private property. Whether a given policy tool is efficient, equitable, and effective depends on public goals as priorities may change over time and differ across regions. Prescriptive policies for the provision of ecosystem services on private property, such as various regulations on land use and management, are necessarily highly coercive, and are often considered politically infeasible or costly to implement. However, these policies can be highly effective when enforced and justified when marginal damage to an ecosystem is high.

Table 2: Policy tools to encourage the provision of public goods and degree of each dimension

Policy tool /dimension	Coerciveness	Visibility	Automaticity	Directness
Prescription				
Regulation	High	Low	Low	Medium
Penalty				
Taxes	Medium	Medium	High	Medium
Property rights				
Land use moratorium	High	Low	Low	High
Tradeable permits	Medium	Medium	Medium	Medium
Payments				
Tax	Low	Medium	High	Medium
Expenditures	Medium	High	High	Low
Grants	Low	Medium	Low	Medium
Easements	Low	High	Low	High
Direct payments	NA.	NA.	NA.	NA.
Public information	Low	Medium	Low	Low to High

Source: Kemkes et al., 2010

Penalties, such as taxes, charges, etc. are highly automatic and efficient in encouraging land management practices providing public goods. Such policies are not equitable, though, as landowners are required to pay for the benefit of the entire society. The alteration of property

**85th Annual Conference of the Agricultural Economics Society
Warwick University**

18 - 20 April 2011

rights, such as land use moratorium and tradable permits, are highly coercive and efficient in high priority cases, though these tools are less visible and automatic. Payments for disseminating public information in an effort to change landowner behaviour have low levels of coerciveness, though may capture a high level of political support and can directly target potential providers. However, this might not be enough to induce changes in behaviour.

Payments for ecosystem services (PES) have been defined as voluntary transactions where an ecosystem service is bought by at least one buyer from at least one provider, if and only if a provider secures the provision of the service (Wunder, 2005). If an option (e.g. grants, easements, direct payments, etc.) is present, landowners can voluntarily supply ecosystem services and be compensated for this activity. These payments are effective when transaction and implementation costs are low and benefits can be captured by the 'buyers' (Kenkes et al., 2010).

However, there is no reason to intervene to secure the provision of all public goods in Europe. This would be prohibitively costly and public finance is limited. Public intervention is only needed in those cases when public demand is greater than the level of provision. In other words, public intervention is only needed when the supply of public goods is inadequate or expected to decline. This point raises a number of questions. First, it is a difficult, and thus contentious exercise to measure overall demand for European public goods, especially given the diversity of the public goods outlined above. Second, it is seldom clear how any demand in excess of current provision can be linked to quantifiable targets. Which indicators should be chosen so as to best reflect the overall status of the provision of European public goods? Third, many of these indicators only provide information at a pan-European scale and trends at the European level may mask considerable differences between and within Member States. Fourth, given the multifaceted nature of certain of these public goods, indicators relating to a single parameter are often an inadequate measure of the composite whole. Fifth, for many indicators, data have not been collected over time, meaning that we do not have a full picture of the current level of provision. What we have instead are just "snap-shots", making it nearly impossible to assess whether the environmental state is improving or declining.

Nevertheless, most commentators appear to agree that environmental payments are justified by the public good market failure, and continue the logic to recommend closely targeted payments made to those actually providing the goods (and services). However, Harvey (2003) questions whether there are strong grounds to believe that government, especially central EU government, is necessarily better than the market at solving the failure. He points out that the market failure results from the fact that the necessary transactions between the providers of the widely heterogeneous public goods and those willing to pay for their provision are prohibitively costly. As Coase (1960) pointed out, if transactions costs are low, public goods are not a problem. In this sense, the market does not fail, it simply records the fact that the effort to solve the problem is not worthwhile – the benefits of solution do not outweigh the costs of doing so. Of course, even when (as is increasingly the case) the market does consider it worthwhile, there is the 'free rider' problem – those who are willing to pay in principle choose not to on the grounds that the public goods and services will be provided by others and there is no need for their own individual contribution. Harvey (*ibid.*) argues that the free-rider problem does justify some public (government) contribution towards the provision of public goods by land users. However, he also argues that the problems of aligning willingness to pay for them with the costs of provision cannot be solved effectively (still less, efficiently) by

18 - 20 April 2011

bureaucracies. There is no necessary correspondence between the need for government support and the requirement for government provision. He argues that we need to encourage quasi-market solutions to the problem, rather than yet more public programmes.

Moreover, we should be aware that agricultural policies creating artificial markets (demand) for public goods have two important drawbacks: (1) direct interaction between supply and demand is still absent with all its problems and (2) there is no possibility to check the quality of public goods, compared to an open market system. These characteristics run the risk of creating artificial but inefficient markets for the provision of public goods that could be supplied by non-market or quasi-market mechanisms at lower cost.

Public support for public goods in Europe: A brief history

The CAP has addressed the undersupply of public goods both directly and indirectly through a range of policy measures, though to a different extent. Current policy instruments for the provision of public goods can be classified into three broad groups, according to Cooper et al (2009): (1) measures where the provision of public goods is the primary rationale, (2) measures containing reference to improving the sustainability of agriculture or enhancing natural capital and (3) measures where the environment is much more indirect in nature (Table 3).

Table 3: CAP measures supporting the provision of public goods

Measures with a direct focus on the provision of public goods (Category 1)	Measures with a partial focus on the provision of public goods (Category 2)	Measures with a no direct focus on the provision of public goods (Category 3)
Agri-environmental measures	CAP specific rural development measures (Farm modernisation, LFA payments, NATURA 2000, etc.)	CAP specific rural development measures (value added, diversification, etc.)
Cross-compliance and GAEC standards		Direct payments
Article 68 measures		
LIFE+		
Structural Funds		

Source: Own composition based on Cooper et al., 2009

As to the first group of measures, these usually subsidise environmentally beneficial land management practices. The most common are agri-environmental (AE) measures, directly focusing on the maintenance and improvement of agricultural landscapes and biodiversity and thereby assisting in the provision of public goods. The role of agri-environmental measures, in operation since 1992, has significantly increased during the various CAP reforms and has given a major focus of rural development in many countries with the key priorities of protection of cultural landscapes and biodiversity.

18 - 20 April 2011

Besides agri-environmental measures, cross-compliance and GAEC standards also play a role in keeping agricultural lands in good environmental shape. As these standards are compulsory in order to receive the full amount of decoupled direct payments, they have high coercive power and impact on the majority of agricultural producers, at least potentially, given the extent of monitoring and policing of the standards. Article 68 payments seek to target specific types of environmentally important farming, though to a limited extent. It serves as a tool to redirect first pillar instruments for environmental purposes. Besides these agriculture-related programmes, LIFE+ and Structural Funds might also have direct impacts on the provision of public goods through co-financing projects aiming to improve natural conditions, biodiversity as well as environment policy and governance in different regions across Europe.

As for the second group, a range of rural development measures seek to support actions that bring about environmental improvements. Although environment is not a central objective for these measures, they seek to improve environmental sustainability of farms. Such measures include, *inter alia*, payments for training and advice, LFA and Natura 2000 areas, training and information and the conservation and upgrading of the rural heritage (Cooper et al., 2009). Payments for natural handicap and NATURA 2000 areas are probably one of the best designated and managed programmes under the second axis aiming to increase biodiversity and restore natural habitats in a wide range of agricultural areas throughout Europe.

Measures pertaining to the third group, such as direct payments or farm diversification, do not have any environmental objectives but they might have impacts on the provision of public goods through Europe by maintaining economic viability and thereby enabling farmers to continue to provide public goods. With its 73-80% share of agricultural budget each year, decoupled direct payments, designed to support and stabilise farm incomes, seek to keep farming activity in place, providing a precondition for the provision of public goods. Though these payments have a huge geographical coverage, they are not specifically targeted (at least until now) at those farms that are the most environmentally vulnerable. Besides direct payments, specific rural development measures, including support for value added activities and diversification of farming also have the potential to provide indirect support for the provision of public goods.

On the whole, it is apparent that few measures (with the exception of AE schemes) within the current CAP framework have a direct focus on encouraging the provision of public goods in Europe. Agri-environmental measures seem to play the most significant role in this regard by delivering substantial benefits for the environment. It is also apparent that second pillar measures are given the primary focus, while first pillar measures have limited impacts in the provision of public goods. However, existing measures seem not to have achieved the improvement in the provision of public goods on the scale that is required, as well discussed by Cooper et al (2009). Therefore, there is a clear need to change current policies and next section focuses on the way the Commission plans to do so.

Public goods and the CAP post 2013

The term public goods first entered into the CAP debate in 2007 when it was used in an agricultural context by the environmental NGOs (IEEP, 2010). Since then it has gradually infiltrated the mainstream policy debate appearing in many papers and speeches from research papers to the highest level of decision making. The need for securing mainly environmental

18 - 20 April 2011

public goods in the future CAP is echoed by an increasing number of stakeholders, rallying behind the slogan of “Public Money for Public Goods”, developed by Zahrt (2009). Becoming the primary focus, the concept is now used more generally to refer to any sort of public benefit from agriculture, thereby justifying the need for public support, as expressed by various stakeholders. There is a clear danger of misusing the term as a justification for supporting anything that is in the “public interest” (IEEP, 2010).

The latest proposals of the Commission on the future of public goods are in its official Communication on the future CAP (EC, 2010). Here, the Commission is keen to link the provision of public goods to an existing policy instrument – direct payments. By using the slogan of “greening the first pillar”, adjustments to the current configuration of direct payments are envisaged, which would represent a very important innovation in the history of the CAP. It appears that the present system of direct payments would be separated into a flat rate basic payment, available to all farmers, and a number of additional payments (a green component, a “natural constraints” component and limited voluntary coupled support), not available to everyone. The basic payment component would be subject to a ceiling per farm and to cross compliance, while the mandatory greening component would apparently be delivered through the implementation of simple, year-by-year, agri-environment actions. With a clear and positive message that redistribution, redesign and better targeting of support is needed, the new system would limit the gains and losses of Member States by guaranteeing an average level of direct payments to all farmers, implying that a significant redistribution of the level of support is needed both between farms as well as between Member States. However, the Communication lacks many details on design and implementation and thereby it remains unclear whether proposals represent a major change in the first pillar or only a very light greening (Jambor, 2011).

Latest reports of the discussions surrounding the re-definition of the basis of direct payments, and their consequent redistribution between both member states and farms, strongly suggest that the search for an acceptable and ‘objective’ basis for DPs is at a dead-end (Agra Europe, 2450)³

Critiques of proposals associated with direct payments

The combined model of direct payments (flat rate + specific components) only partially addresses the principal problems of the present system. On the one hand, the unequal distribution of these payments amongst countries and farms of various sizes appears to be solved by “limiting the gains and losses of Member States” and introducing an “upper ceiling” of payments. On the other hand, it seems that the Communication fails to address the fundamental problem behind direct payments: their ineffectiveness in the long run due to their support for the agricultural industry (processor, input supplier, landowner, etc.) instead of the farmer. As is well recognised in the academic debate (Jambor-Harvey, 2010), the current system of direct payments supports the whole agricultural sector (and not individual farmers),

³ [AE 2450, 11.2.2011](#). says: „DG Agri is currently putting together an impact assessment which will map out the potential effects of modifying national P1 envelopes on the basis of various 'objective' criteria – thought to include surface area, production conditions, employment and purchasing power. .. A diplomat from one EU15 state told *Agra Europe* that the idea of seeking 'objective criteria' may be a dead end; internal calculations in this member state on the basis of various potential criteria have yielded unsatisfactory distribution results.”

18 - 20 April 2011

as revenue increases are capitalised in the value of farm assets or spent on increased production costs. In effect, the benefits of support are frozen into higher costs for the sector and its businesses.⁴

There have been no reactions to this problem within any of the Communication proposals. Moreover, it is also questionable as to how redefined direct payments would provide food security (a social public good). As the current system of decoupled direct support suggests, a farmer need not even produce to receive a fixed income. If a farmer does not produce agricultural commodities, it is hard to imagine how he or she contributes towards ensuring food security. Consequently, stabilising farmers' incomes does not necessarily mean guaranteeing food security, despite the fact that food security still remains the Commission's major reason for maintaining farm income support. By seeking to stabilise all farmers' incomes, current direct payments seem to focus on social issues (pertaining to the second pillar) instead of focusing on enhancing the competitiveness of farmers.

Direct payments lack several important elements (Jambor, 2011). First, the share of each component within direct payments is not defined, nor is it clear whether there will be any binding requirements making farmers ineligible for the basic component if requirements for the other components are not met. Second, regarding the proposal of "limiting the gains and losses of Member States", it is not clear how these limitations are to be made and on what basis national allocations are to be defined. It seems that the future system of direct payments will allow greater flexibility for Member States in distributing these payments, the details of which (especially the objective criteria determining the reallocation procedure and the exact degree of flexibility in implementation) are left unclear. Third, the Communication clearly states that the beneficiaries of direct payments should be "active farmers", the definition of which is questionable. Furthermore, no performance indicator is attached to "active farmers", meaning that all farmers living from agriculture have the right to receive income support. This logic will leave those "embedded" in agriculture in the same position in the next programme period, without their production performance being questioned (either for commodity or non-commodity production). Fourth, the proposed new structure for direct payments contains components of the current second pillar (e.g. a greening component, areas with natural constraints), though it remains unclear whether this will result in any reallocation of resources from the second to the first pillar (an issue that emerges in many contexts throughout the Communication). Fifth, proposals regarding the "natural constraints" component are also problematic. It is not clear how this category would be defined nor is the exact implementation mechanism obvious (e.g. flat rate or more targeted payments). It also remains unclear how this new category would go together with Less Favoured Area (LFA) payments or support for High Nature Value (HNV) areas.

Critiques of proposals associated with the provision of public goods

A rich economic literature underlines the fact that securing the provision of public goods provides a valid reason for public intervention in a market economy. Although the Communication also uses this argument when elaborating its proposals on the provision of public goods in the CAP, these proposals have many deficiencies. First, the Communication

⁴ These points are also made forcefully by Gardner ([AE2453, 4.3.2011](#)), referring especially to a prestantion made to the European Parliament by [Tangermann \(7.2.11\)](#).

**85th Annual Conference of the Agricultural Economics Society
Warwick University**

18 - 20 April 2011

seems to focus exclusively on environmental public goods, though, as well-stated by the European Parliament (EP, 2010), non-environmental public goods (e.g. rural vitality, farm and animal welfare, food security) also exist. However, no reference is made in the text to public goods related to social externalities and the Communication does not make proposals on non-environmental public goods.

Second, although the Commission calls for the “enhanced provision of environmental public goods” via the “greening component” of direct payments, the way of accomplishing this remains substantially unclear. The design of a simple, contractual, annual payments scheme, together with its monitoring support and penalty regimes, is unlikely to be straightforward. Of those mentioned, permanent pasture, green cover, crop rotation and ecological set-aside might have the potential to deliver a range of additional environmental benefits and can have their role in the delivery of environmental public goods.

Third, the provision of public goods seems to require significant institutional and administrative support for the management of these programmes. It is doubtful that these programmes can be well-administered without a substantial increase in bureaucracy. However, such an increase would result in cost increases and work against the “cutting the red tape” principle, as both argued for in the Communication and by a recent Dutch/Danish position paper on reducing bureaucracy.⁵

Apart from this, the greening component of direct payments is proposed as “a compulsory additional aid for specific “greening” public goods through simple, generalized, annual and non-contractual agri-environmental actions based on the supplementary costs for carrying out these actions” (EC, 2010, p15). However, the coherence between this compulsory new element and the current GAEC, Natura 2000 and cross-compliance requirements is unclear. How will NATURA 2000 payments and GAEC standards be included in the greening component? What is the difference between cross-compliance, the environmental requirements in the greening component and agri-environmental measures funded by the second pillar? It is also very doubtful whether the “greening” component in the first pillar could deliver public goods more efficiently or effectively than more targeted schemes in the second pillar (as also argued by Tangermann, 2011).

Given these problems, a logical question arises as to what effect the “greening component” would have on the expenditure balance between the two pillars. Current proposals seem to have many overlaps. Agri-environmental issues, though not mentioned by name in the main text, are to be dealt with under both pillars, contrary to the present system in which agri-environment is represented in the second axis of the second pillar. If a change in this situation is introduced, it is not clear whether this transfer of function is also accompanied by a transfer of resources from the second to the first pillar, which would completely contradict the apparent logic of the CAP reform path to date. This question concerns payments for areas with specific

⁵ As reported in [AgraEurope](#) (08.03.11): “The Netherlands and Denmark have rallied near unanimous support from member states for calls to cut red tape from all elements of the CAP. The paper urges the Commission to formulate the entirety of its CAP reform plans with an eye to simplicity, lower administrative costs, proportional risk and granting member states administrative freedom where possible. The paper, likely to be discussed further at the March 17 Farm Council, already carries the support of almost all member states, this week’s Special Committee on Agriculture (SCA) meeting revealed.”

18 - 20 April 2011

natural constraints where it is also unclear which elements of these payments, if any, will remain in the second pillar. It is also unclear which agri-environmental activities will stay within the second pillar and which will be transferred into the first pillar, and in addition, the implementation of such a “dual” system is also dubious. On the whole, the “greening” of the first pillar and existing second pillar agri-environmental instruments appear to have much in common, and a lack of detail means the document falls short of providing clear justification for the distinction (Jambor, 2011).

These deficiencies in the present proposals are perhaps understandable, since the Commission’s Communication represents an outline of possible future directions, still subject to substantial debate and negotiation, rather than a definitive statement of policy principles and operational details. Nevertheless, they do illustrate the difficulties of arriving at an agreed and sensible way forward, and also strike a receptive chord amongst many stakeholders, who are likely to agree with the general principle that farmers and land users should be paid for their provision of public goods. However serious questions are raised by this common presumption.

The real problem behind: Powerless valuation of ecosystem services

The services of natural ecosystems have always been of great importance to our societies as they are essential to human survival and wellbeing. Nowadays, there is a clear trend towards the monetization and commodification of ecosystem services (Gómez-Baggethun et al., 2010), though it is questionable how the importance of these services translates into economic value. As economics is more concerned with prices than with values or importance, one might think that the price of a good reflects its importance in social sense – but this is not true. As Heal (2000) puts it, there is no clear relation between the prices of goods and their associated social importance. Diamonds are priced more highly than socially important goods such as water. Moreover, prices change significantly with supply-demand conditions and it is impossible to define a constant value for ecosystem services, including public goods. If supply or demand for public goods changes significantly, price changes will follow. Therefore, present prices reflect present market conditions and they tell us nothing about how things would be if much less is available, or as they become more socially valuable.

There are various methods in economics for estimating prices (willingness to pay, or provide) for services with no market price, including: hedonic prices; replacement costs; travel and visit costs; contingent valuation. All methods deal with an extremely complex socio-economic environment where changes are due to many internal and external factors which are practically impossible to capture or control. Ecosystems are a particular configuration of resources that provide various services which are almost impossible to measure. Even if measured, assessing the value of changes in service provision at the European level poses huge challenges as non-constancy of marginal utilities need to be taken into account (Pascual et al., 2010). What is more, forecasting models frequently fail to anticipate important social and technological developments that can influence the long-term value of natural ecosystems (Gowdy, 2007).

It is apparent that we can only make educated guesses about the value of a landscape or the value of biodiversity. As a result, any estimates will be subject to ongoing contest and dispute and it is unclear how the Commission proposes to deal with these problems. There is no

18 - 20 April 2011

meaningful common value for public goods throughout Europe. There is no reason to suppose that the same public goods policy should apply to Established and New Member States still less for each and every region or farm. Moreover, without knowing the proper indicators and measurement methodology, the efficiency of the delivery of environmental public goods can hardly be evident. Questions arise as to who will evaluate (and on what basis) whether public money spent on the provision of public goods has led to the achievement of the policy's aims or not. Going further, if we cannot measure the outcome, it is impossible for taxpayers to understand exactly what they are paying for.

The efficiency of policies providing public goods also rests on dubious grounds as ecosystem services are normally characterised by complex ecological processes and functions. The relationship between land use change and the provision of ecosystem services, for instance, is often context dependent and hard to demonstrate. In any case, valuation itself is not necessary for conservation - we conserve much that we do not value and do not conserve much that we do value (Heal, 2000). It is incentives not valuation that encourage owners to conserve public goods. Valuation is the outcome of the socio-economic mechanisms we use to organise provision and supply with requirements and demand, not a pre-requisite for these mechanisms. The emphasis on valuing public goods as part of ecosystem services is misplaced – it puts the cart before the horse. We need to think more clearly about the design and encouragement of institutions that will generate both the incentives and penalties, and the social mechanisms for the participation and engagement of the beneficiaries with the providers. Valuation is the outcome of these processes, not the input.

Setting the incentives – policy recommendations

Public goods have special natural characteristics and their problems cannot be solved by compensatory payments. In particular there is no reason to suppose that “the correct payment to farmers for the delivery of public goods and services will be a key element in a reformed CAP” (EC, 2010, p 36). What suggestions have been made for the provision of public goods in the future?

1. Outcome based approaches

Current agri-environment schemes are designed to meet environmental objectives through prescribing and paying for a set of management practices rather than making payments conditional on achieving the environmental outcomes themselves. Moving from a prescription-based approach towards outcome-oriented measures might provide a more cost effective way of delivering the desired public goods. Outcome based approaches directly reward the desired result without imposing prescriptions, thereby giving farmers the flexibility to choose the most cost effective way to provide the necessary public goods. Such an approach would be in line with a more effective evaluation and monitoring system as well as with the need for EU and programme level quantified targets, linked to priorities. However, so long as the ecological and socio-economic mechanisms linking actions to outcomes remain largely unknown or at least uncertain, the efficacy of outcome-related payments on achieving the desired levels and mixes of public goods is also likely to be poor.

2. Focus on local needs

18 - 20 April 2011

A positive change in the provision of public goods takes place if these programs catalyse sustainable practices desired by those providing these services. Examples include the increase in farm profitability by improving soil and water conditions or the various benefits accrued by reforestation (e.g. firewood supply, biodiversity growth, air quality increase, etc.).

3. Integrated and cooperative approaches are needed

Many approaches to encourage the provision of public goods tend to take rather diffuse steps towards their delivery when targeting a particular beneficiary. However, greater environmental benefits may be accrued if delivery takes place at a broader geographic scale, particularly where the territory-specific response is needed. This requires policy measures to be integrated but also relies on the cooperation of land managers, and often local communities, for enhanced environmental benefits (Cooper et al, 2009).

4. Enhance the use of auctions

In order to increase the cost effectiveness of agri-environment schemes, the auctioning of agri-environmental contracts is recommended to a certain extent. Through competitive bidding for a limited number of contracts, farmers offer the lowest rational price and this reduces public expenditure in relation to the desired outcomes, while increasing the targeting of agreements. Therefore, auctions have the potential to either achieve the same level of scheme uptake at a lower total cost or to expand uptake within a given budget (Cooper et al, 2009).

5. Reward outstanding performance

As an incentive to manage successful programmes, a reward for outstanding performance should be considered. A so called performance reserve, originally proposed in 1999 by the Commission, should be allocated to successful programmes, providing an additional percentage of their initial budgetary appropriation, thereby serving as an incentive to others to manage successful programmes.

6. Support private programmes

Given the uncertainty of the appropriate mechanisms for linking providers with beneficiaries, it makes sense to encourage experiment to explore the possibilities – to mimic the evolution of the market mechanism itself. NGOs and not-for-profit organisations already exist to express the voluntary demand for non-market goods and services and organise their provision and delivery. These organisations can be encouraged with appropriate grant-in-aid payments to offset the inevitable, but possibly over-emphasised free-rider problem. Competition between such organisations for support from the general public and cooperation from the providers would be expected to encourage innovation and adaptation so as to develop mechanisms and procedures to overcome and reduce the otherwise prohibitive transactions costs which underpin the public goods problems. In addition, R&D and extension support is needed to provide the necessary information and understandings on which these resolutions depend. At root, it is the information and understandings which are the real and undeniable public goods which need and deserve both public funding and public provision, not the quasi public goods supposed to be associated with land use.

18 - 20 April 2011

Conclusions

From a consideration of the role of public goods in the future CAP we reach a number of conclusions.

1. The diverse range of public goods provided by agriculture have different characteristics as well as reflecting different aspects of the needs of the European society. Readyng us for the future requires that the complexity of the system is recognised by agricultural policy applying differentiated and targeted policies rather than attempt to find a one-size-fits-all approach.

2. It is widely argued that the provision of public goods provides a valid reason for public intervention in Europe. However, there is no reason to intervene to secure the provision of all public goods in Europe. This would be prohibitively costly and public finance is limited. Public intervention is only needed in those cases when public demand is greater than the level of provision. Furthermore, arguments in favour public support are not the same as arguments for government or bureaucratic provision.

3. Various agricultural policy tools exist to encourage landowners to internalise the benefits provided by the natural capital on their property but few of these within the current CAP framework have a direct focus on encouraging the provision of public goods in Europe. Existing measures seem not to have achieved the improvement in the provision of public goods on the scale that is required.

4. Neither the provision of compensatory payments nor a greened first pillar solve any of the underlying problems of public goods. Direct payments to farmers may be as likely to worsen as to improve multifunctional benefits. The real problem lies in difficulties of evaluating ecosystems services.

5. It is incentives and appropriate mechanisms, not valuation, which encourage owners to conserve and provide public goods. The emphasis on valuing public goods as part of ecosystem services is misplaced as economics should help design institutions that will provide incentives and mechanisms for the conservation of such goods. In order to help this process, various policy recommendations are given in the paper.

6. In the design of future programs for public goods, we should be also aware that transaction costs and trade-offs are of utmost importance and payments for a single service might have perverse outcomes to another. Due to very high transaction costs of ecosystem services as well as realities of human behaviour, there is no particular reason to believe that a market based approach for the provision of public goods will be more efficient or sustainable than non-market alternatives. Socio-economic institutions need to be adapted to ecosystems, not *vice versa*.

References

**85th Annual Conference of the Agricultural Economics Society
Warwick University**

18 - 20 April 2011

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.

Coase, R.H., 1960 "The problem of social cost" *Journal of Law and Economics* 3 (1), 1–44.

European Commission (2010). *Communication on "The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future"* COM (2010) 672 final, Brussels

European Commission (2009). *The CAP in perspective: from market intervention to policy innovation*. European Commission DG Agriculture and Rural Development, Agricultural Policy Perspectives Briefs, no.1, December

European Parliament (2010). *The CAP towards 2020: Working Paper on the EC Communication of 18 November 2010*, EP Note, IP/B/AGRI/NT/2010_17.

Farley, J. and Costanza, R. (2010). Payments for ecosystem services: From local to global. *Ecological Economics*, 69 (2010), pp. 2060-2068

Gómez-Baggethun, E., de Groot, R., Lomas, P.L. and Montes, C. (2010). The history of ecosystem services in economic theory and practice: From early notions to markets and payment schemes. *Ecological Economics*, 69 (2010), pp. 1209-1218

Gowdy, J.M. (2007). Toward an experimental foundation for benefit-cost analysis. *Ecological Economics*, 63 (2007), pp. 649-655.

Harvey, D. R. (2003). Agri-environmental relationships and multi-functionality, *The World Economy*, 26(5), pp.705–725.

Heal, G. (2000). Valuing Ecosystem Services. *Ecosystems*, 3 (1), pp. 24-30

IIEP (2010). *Public Goods Emerging as a Central Rationale for Future CAP Support*. CAP2020 Policy Briefing, 07/2010

Jambor, A. (2011). *Rural Development in the CAP post 2013*. European Parliament note, IP/B/AGRI/IC/2011_005, pp. 38

Jambor, A. and Harvey, D. (2010). *Review of the Challenges of CAP Reform*. Centre for Rural Economy Discussion Paper Series No. 27, Newcastle University, UK

Kemkes, R.J., Farley, J. and Koliba, C.J. (2010). "Determining when payments are an effective policy approach to ecosystem service provision" *Ecological Economics*, 69 (2010), pp. 2069-2074

Kumar, P. (Ed.) 2010, *The Economics of Ecosystems and Biodiversity: Ecological and Economic Foundations*, Earthscan, London

**85th Annual Conference of the Agricultural Economics Society
Warwick University**

18 - 20 April 2011

Norgaard, R. B., 2010, "Ecosystem services: From eye-opening metaphor to complexity blinder", *Ecological Economics*, 69 (2010), pp. 1228 - 1236

Pascual, U., Muradian, R., Rodríguez, L.C. and Duraiappah, A. (2010) "Exploring the links between equity and efficiency in payments for environmental services: A conceptual approach" *Ecological Economics*, 69 (2010), pp. 1237-1244

Romstad, E. (2002). *Policies for Promoting Public Goods in Agriculture*. Paper presented at the 10th Congress of EAAE, 28-31 August, 2002, Zaragoza, Spain.

Tangermann, S., 2011, "Direct payments in the CAP post 2013", presentation to European Parliament Workshop: CAP towards 2020, Brussels, February (available at: <http://www.europarl.europa.eu/activities/committees/publicationsCom.do?language=EN&body=AGRI>, accessed 1.04.11)

Wunder, S. (2005). *Payments for environmental services: some nuts and bolts*. CIFOR Occasional Paper, no. 42.

Zahrnt, V. (2009). *Public Money for Public Goods: Winners and Losers from CAP Reform*. ECIPE Working Paper, No. 08/2009, Brussels, Belgium

Subject to revision - please check with authors prior to citation