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AGRICULTURAL COMPETITIVENESS: MARKET FORCES AND POLICY CHOICE

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*Valuation and Remuneration of
Countryside Stewardship Performed by Agriculture and Forestry*

The scope of this paper is to clarify the concept of countryside stewardship. Attention is focused on Western Europe, where the concept has political, legal and economic connotations, and where ethical and cultural values are also important. The economic nature and value of stewardship are examined, and the policy instruments aimed at inducing countryside stewardship are probed. This paper refers to the benefits of stewardship, defined as the production of positive environmental effects or safeguards from negative effects. Agricultural practices which may cause negative externalities are not considered.

THE CONCEPT OF COUNTRYSIDE STEWARDSHIP

To some extent, the concept of countryside stewardship, or the management and conservation of land, is part of natural law. The Roman *bonus pater familias* (the good father of the family) was conceived to be a steward entrusted with management of the family estate, looking after his children's welfare. Thomas Aquinas, in his Scholastic philosophy, pointed out that land ownership is a concession which should be exercised in the manner of a service: *potestas procurandi et dispensandi* (the duty to manage and conserve the land), rather than *ius utendi, fruendi et abutendi* (right to use or abuse the land). This concept was later taken up by the philosophers of Natural Law (de Groot, Hobbes, Locke, Pufendorf). The French Constitution of 1791 stated the public ends of private property. However, it has also been argued (Newby, 1979) that stewardship was a 'philosophy' which once supported the rights of the landed gentry on the basis of their duties: stewardship was a duty of aristocracy as well as a means to legitimize private landownership.

Now stewardship is seen as an entrustment to agriculture and forestry (not necessarily to the land owners) to provide a range of benefits to society, in addition to food and fibre. The nature of this trust is not well defined, however. It is unclear which objectives and rights are at stake and whether the steward should be rewarded. These points are gaining importance in the political agenda of various European countries and, indeed, in the European Union (EU).

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The economic nature of stewardship

The rural population has always carried out stewardship tasks aimed at conserving the productive base, while simultaneously providing rural services (Table 1). Stewardship represented one of the various inputs, employed to realize balanced and sustainable agroforestry production. The relationship between stewardship and other inputs has evolved over time, following developments in agricultural practices and in relative input prices. In particular, the costs of mechanical and chemical inputs have fallen, while those of stewardship have risen. There is consequently less utilization of stewardship in agricultural production, apart from certain marginal areas, where it cannot be replaced by mechanized inputs.

Economic development and higher living standards have brought about radical changes in the perception of the countryside. From being a factor of

TABLE 1 *Examples of the content of countryside stewardship*

Traditional: productive base conservation and enhancement	New perceptions: amenities and environmental conservation
(1) Watershed management	(5) Scenic values
(2) Erosion control	(6) Recreation
(3) Drainage	(7) Rural life and culture
(4) Roads and footpaths maintenance	(8) Wildlife and habitats
	(9) Pollution prevention
	(10) Animal welfare

TABLE 2 *The changing economic nature of countryside stewardship*

Countryside stewardship	{ Input to farming and forestry (factor of production mainly private) Output of farming and forestry (consumption good with notable public good characteristics, input to the social welfare function)	{ By-product (incidental positive externality, not competitive with food and fibre)
		{ Joint product (intentional, generally not competitive with food and fibre)
		{ Main product (intentional, generally competitive with food and fibre)

production, man-made rural landscape and land capital have become a durable consumption good. The countryside is now also valued for its sometimes unique, aesthetic, scenic and environmental attributes. As a consequence the amenities, natural resource conservation and other services provided by stewardship have fully emerged as outputs of farming and forestry (Table 2).

The explicit demand for countryside benefits has highlighted the interconnections between stewardship and farming and forestry, in terms both of input and of output (Bowes and Krutilla, 1989). However, whereas input prices are explicit, stewardship output often has just an implicit, non-market value. As shown in Table 2, the countryside stewardship output is related to agricultural and forestry production as a by-product, a joint product, as well as a main product, these being successive stages of higher social importance. Moreover, to a certain extent, the evolution from being an input to becoming an output (though an input of the social welfare function) marks a transition from private to public good status. Stewardship can also be considered a positive externality, depending, however, on prevailing property rights (Hodge, 1991).

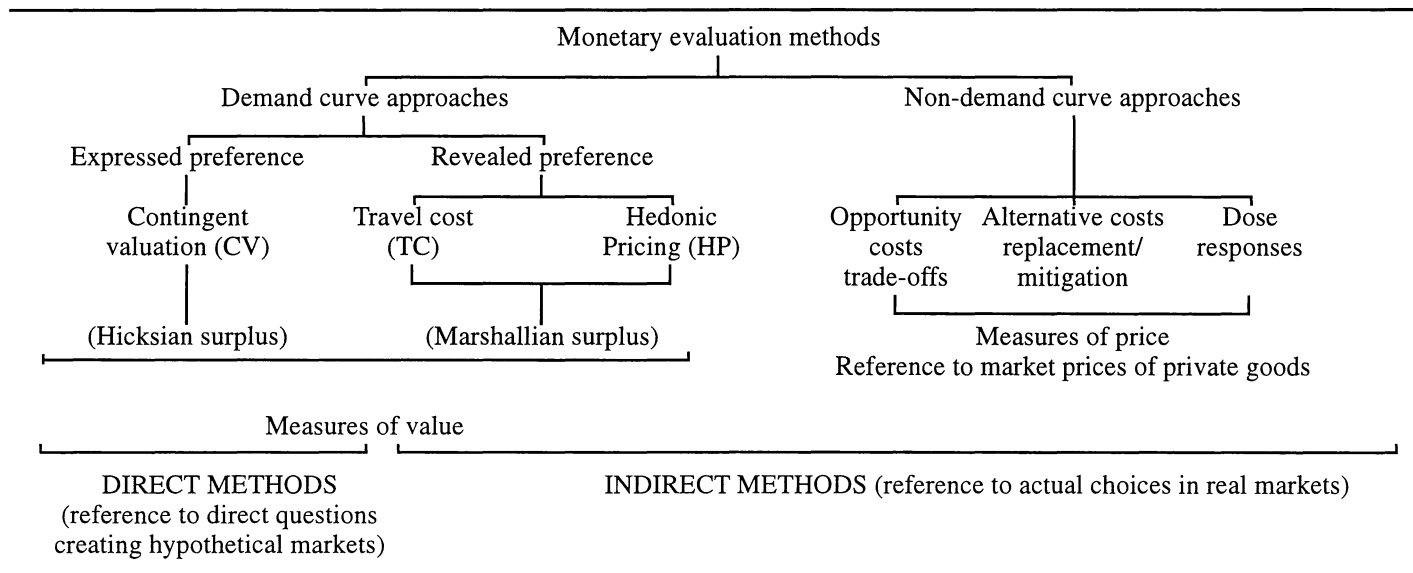
Values involved and valuation techniques

The value of environmental goods is generally expressed as the multifaceted concept of total economic value (TEV). Its basic components are illustrated in Table 3, which distinguishes between 'use', 'option' and 'non-use' values. Though there is widespread consensus regarding the concept of TEV, the boundary between its various components remains somewhat less clear (Randall, 1991; Bateman, 1994). There may be various overlaps, if not double counting.

TABLE 3 *The total economic value of countryside stewardship*

Use value	$\left\{ \begin{array}{l} \text{direct} \\ \text{indirect} \end{array} \right.$	e.g. – food and fibre – recreation
		e.g. – flood protection – rural services
Option value	$\left\{ \begin{array}{l} \text{future use} \end{array} \right.$	e.g. – possible visit to a certain landscape or use of a certain species once the appropriate information becomes available
Non-use value (passive)	$\left\{ \begin{array}{l} \text{vicarious} \\ \text{existence} \\ \text{bequest} \end{array} \right.$	e.g. – pictures or videos of landscapes
		e.g. – satisfaction from rural habitats conservation
		e.g. – landscape enjoyed by future generations

TABLE 4 *Methods for the valuation and 'pricing' of environmental goods and services*



Source: Adapted from Bateman (1994).

The concept of TEV has evolved along with methodologies attempting to estimate the value of environmental goods. Given the lack of specific markets, these methodologies may refer indirectly to markets in goods connected with the environment (substitutes or complements), or they 'construct' hypothetical markets directly through surveys (Cropper and Oates, 1992). Some authors (Bateman, 1994) point out that the full value of a good can only be calculated by examining the demand curve showing how much of it people would use at varying prices. Thus they distinguish (Table 4) between the 'pricing' (or non-demand curve) approaches and those based on surplus measures derived from the demand curves. The discussion of methods and meaning of results is, however, wide open and there is much debate about the possibility of measuring non-use values (Arrow *et al.*, 1993; Carson *et al.*, 1993). Some Europeans remain sceptical. Weinschenck (1994) has drastically classified economists as 'believers' and 'non-believers' in monetary valuation of environmental goods.

The main challenge to such monetary evaluation comes, however, from biologists and engineers. A quite interesting, although tentative, development can be found in multi-criteria analysis in which shadow values (trade-offs) can bridge the differences between economic values and other physical parameters (for example, Romero, 1994).

THE DEMAND FOR COUNTRYSIDE STEWARDSHIP: GROWTH AND CONTRASTS

In recent decades there has been a clear increase in the demand for countryside stewardship owing to the strong positive relationship between environmental quality and income level (Beckerman, 1992). This demand is highly dynamic, diversified and fragmented with regard to both user typologies and specific interests. Within a generation, attitudes have changed from indifference to convinced environmentalism, expressed by the so-called 'green consumerism'.

With regard to the demand for countryside stewardship in the EU, one should first consider the 50 per cent of the population living in rural areas (EC, 1988). Only a small minority (around 10 per cent) actually work in agriculture and forestry. Just a few decades ago, the current minority formed the majority. Then there is the demand from visitors, associated with the general growth in tourism. A survey of 44 studies shows a rather high income elasticity of demand for tourism: a value of 1.8 is quoted by Crouch and Shaw (1990). As far as Europe is concerned, annual increases of 2–3 per cent are expected, assuming the supply is growing to meet new consumer needs; the natural environment takes first place on the quality agenda (Croize, 1992). It has been calculated that actual farm tourism in France, Italy and Spain represents just 2–4 per cent of total tourism. Of course, daily excursions to the countryside should be added. Apart from the search for quiet and contact with nature, considered the main reasons for countryside tourism, little is known about the behaviour of visitors (Blaine *et al.*, 1993). They appear to be rather differentiated: day visitors, weekenders, holiday-makers and owners of second homes. Moreover, interests are varied, including birdwatching, hunting, landscape viewing and sport. There are thus contrasts among the various demands (Osti, 1992).

Empirical evidence of countryside benefits

Since the 1970s, and particularly in the 1980s, numerous writers have tried to assess the value of countryside benefits (Table 5). Just from consulting two sources, 152 cases can be counted referring to 11 European countries. Among these applications, forestry and farming are certainly well represented.

TABLE 5 *Examples of countryside benefit valuations in Europe*

Countryside benefits	Methods (number of applications)			Total
	TCM	CV	HP	
<i>Close relation to stewardship</i>				
Forestry recreation	25	16	1	42
Agricultural landscape	–	2	2	4
Game hunting	–	4	–	4
Nature reserves & parks	9	25	–	34
<i>Weak relation to stewardship</i>				
Water	10	21	1	32
Angling	11	7	–	18
Pollution prevention	–	3	–	3
Air quality	–	6	–	6
Noise prevention	–	2	7	9
Total	55	86	11	152

Sources: Navrud (1992); Della Puppa and Merlo (1994).

The salient features of these studies are as follows:

- (1) Valuation techniques developed 30–40 years ago in the United States have become widespread in the UK and northern European countries. Numerous applications have also been carried out in southern countries. In central Europe (Germany in particular) attention has been focused especially on the costs of stewardship (Bartelheim, 1991; Werner, 1994).
- (2) A considerable number of valuations refer to man-made features of the countryside; consequently, an element of stewardship can be found in almost 50 per cent of cases reported. Southern European applications dealing with forestry and parks recreation focus attention on wilderness areas, while scenic values of landscapes have been overlooked. Water recreation seems to be emphasized in the northern countries.
- (3) The majority of valuations have referred to the environment in a broad sense, including recreation, conservation and scenic values. Only the

TABLE 6 *Selected values of countryside benefits*

Country	Site & function	Method	Value (ECU per capita)	Sources
Denmark	Mols Bjerger: recreation	CV	<i>day</i> 3–6	Dubgaard (1994)
Italy	Val Rosandra: recreation	TCM	1	Della Puppa & Merlo (1994)
Italy	Cansiglio: recreation– conservation	TCM CV	4 2	Della Puppa & Merlo (1994)
Spain	Pallas Sobira: recreation	CV	6	Riera (1994)
Sweden	Agricultural landscape: recreation	CV	<i>year</i> 68	Drake (1992)
UK	Yorkshire Dales: recreation	CV	20	Willis & Garrod (1991)
UK	Windsor Forest footpath: recreation	CV	7	Beard <i>et al.</i> (1994)

most recent applications try to estimate very specific benefits and value types; it is not clear, however, to what extent these uses can be separated from the rural environment as a whole.

- (4) The valuations seem to aim mainly at environmental management, land use and arbitration between conflicting interests. Evidence in courts of justice, though not codified, may be considered. A recent seminar of the EU Commission has pointed out the importance of evaluating countryside benefits in order to define payments under the agrienvironmental measures advanced by common agricultural policy (CAP) reform (Dubgaard, 1994).
- (5) Travel cost (TCM) was the most frequently applied method until some years ago; now contingent valuation (CV) is more widespread, being flexible across a range of different situations. Most valuations deal with use values, overlooking option and existence values.
- (6) The relationships between countryside benefit values derived from different methodologies in the EU appear in line with those in the United States: willingness to pay is lower than acceptance of compensation, with the TCM value generally between these two. However, notable differences emerge within European applications owing to methodologies and the value types actually investigated. For example, in Table 6, note the results obtained by Drake, (1992); and Willis and Garrod, (1991). In general, countryside benefits in Europe are lower than 10 ECU per day, in contrast to those in the United States, where they are generally higher (Walsh, 1986). This is probably due to shorter travel distances and Europeans' unfamiliarity with having to pay for public goods such as countryside benefits. However, what has been valued in the United States is above all wilderness and natural beauty, rather than man-made countryside, as in Europe.

The numerous valuations of countryside benefits and further demand analysis led Whitby (1994) to point out the lack of analytical attention being paid to the supply side. It must be acknowledged, however, that in the second half of the 1980s the EU has been particularly concerned with supply; in particular, the 1985 *Green Book* was followed by various environmentally oriented agricultural policies, in particular the 1992 CAP reform.

THE SUPPLY OF COUNTRYSIDE STEWARDSHIP: AN UNCLEAR PICTURE

The decline in the supply of countryside stewardship has been shown by various surveys carried out all over Europe considering items such as hedgerow length and the visual quality of landscapes. Stewardship supply may be considered from the point of view of designated areas as well as the attitudes and behaviour of farmers and foresters.

TABLE 7 *Attempts to quantify the supply of countryside stewardship in EU countries (000 hectares) and the percentage by total country area*

	Protected areas (parks and reserves (IUCN 1991))		High-value farming systems		ESAs (EC Reg. 797/85)				Less favoured areas (EC Reg. 268/75)	
		%		%	Designated		Currently operative (1991)		%	
Belgium	72	2	—		—		—	441	13	
Denmark	410	10	—		128	3	28	—		
France	5 857	11	13 500	24	115	1	37	14 008	25	
Germany	5 729	23	—		2 560	10	292	6 534	26	
Greece	104	1	—		—		—	7 246	55	
Ireland	27	0	—		1	1	—	4 075	58	
Italy	2 240	7	—		944	3	229	8 736	29	
Netherlands	353	9	200	5	756	20	27	48	1	
Portugal	551	6	—		—		—	3 312	36	
Spain	3 505	7	9 000	18	—		—	18 427	36	
UK	4 636	19	7 600	31	741	3	282	9 895	40	

Designated areas

Actions aimed at encouraging countryside stewardship have concentrated especially on limited designated areas such as parks, protected areas and the so-called 'EU environmentally sensitive areas' (ESAs). Attention has also been paid, indirectly, to less favoured areas, through subsidies for maintaining agriculture and forestry which would otherwise have been neglected. An attempt to quantify these areas is reported in Table 7. It is not clear, however, what weight is given to stewardship within the various types of areas. It should be explicit particularly in the high natural value farming systems, defined as 'low-intensity farming systems which often involve a relatively complex inter-relationship with the natural environment' (Baldock and Beaufoy, 1993). The agri-environmental plans set up by 1992 CAP reform should provide indications of the areas where stewardship is needed in the whole of the EU countryside.

Attitudes of farmers and foresters

Some authors, mainly of British origin, give evidence of the commitment of farmers and foresters to countryside stewardship (Gasson and Hill, 1990; Ni Dhubhain and Gardiner, 1994). According to Newby *et al.* (1977), family farmers and the so-called 'gentlemen farmers' are those most inclined towards conservation. In the former case, the profit motive is attenuated by objectives of risk reduction and land capital conservation. Gentlemen farmers, on the other hand, attach intrinsic importance to preserving the agricultural and natural landscape. Meanwhile, agribusiness farmers are in the opposite position, being exclusively interested in profit. This category is, however, the largest in terms of cultivated areas and members respond more readily to conservation incentives. Gasson and Potter (1988) point out the negative correlation between conservation attitudes and financial constraints, above all in farms with medium to low endowment. Again conservation incentives are seen more favourably by large farmers. Volker (1992) underlines that mixed holding farmers are more inclined towards conservation, if provided with financial compensation. Examining a sample of contracts signed by French farmers belonging to a protected area, Bonnieux *et al.* (1993) found a relatively high percentage of young farmers with a good level of professional training who are dynamic and more in touch with extension services.

An attempt to estimate the farmers' supply curve of environmental goods has been published by Whitby and Saunders (1994). Reference was made to farmers' negotiated compensation for not undertaking 'damaging operations' prohibited by law within classified sites of special scientific interest (SSSI). The compensation was considered as a proxy of marginal cost of stewardship (Figure 1). According to the authors, the curve 'reflects the increasing willingness of farmers and landowners to enter into such agreements as the compensation offered grows'.

The fact that only 8.4 per cent of this land has been threatened with damaging operations, obtaining compensation (on average £95.7/ha) could be a sign,

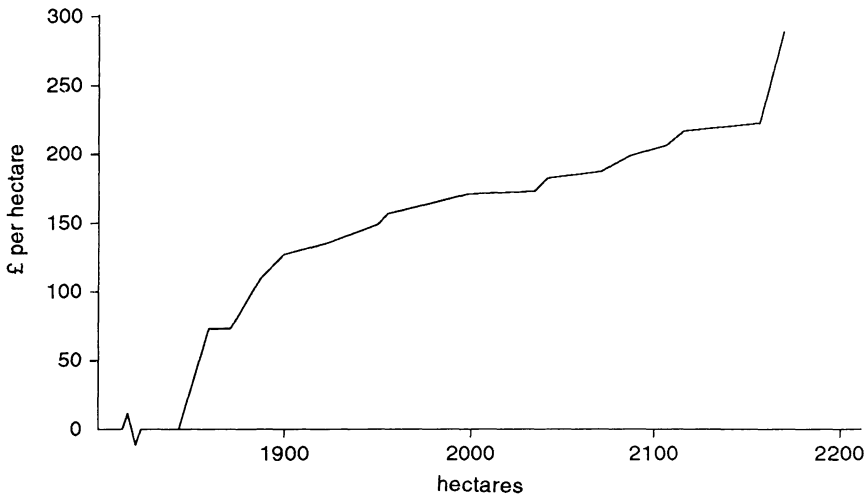


FIGURE 1 *Cost per hectare of selected management agreements*

Source: Whitby and Saunders (1994).

according to Colman (1994), of commitment to stewardship. By contrast, the majority of farmers within ESAs agreed to receive payments for undertaking non-compulsory environmentally beneficial operations (on average around £100/ha). It could be argued that the extent of 'commitment' also depends upon the assignment of property rights (Whitby and Saunders, 1994).

Stewardship and tourism

The farmers' response to the increasing environmental demand is basically the supply of tourist facilities. Economic motives such as additional farm income, the use of idle land or additional employment explain the farmers' interest. Tourism is increasingly regarded as a short-term, low-cost, labour-intensive option for rural development. The data presented in Table 8 show its relevance in European countries.

Rural tourism is deemed to form a significant percentage of the added value produced in agriculture and indeed in the countryside. With regard to Italy, Leon (1989) estimates that new jobs created by rural tourism will represent 4 per cent of the entire agricultural employment. Analysing French data, Thiébaud (1993) found that the quality of landscapes brings about a turnover of around 75 billion francs in the tourist industry as a whole, equal to 20 per cent of the final agricultural output. There could, however, be harmful consequences for stewardship in terms of congestion and landscape degradation. From being complementary, tourism and agriculture may become competitive, particularly

TABLE 8 *Agritourism supply from selected European countries*

Countries	Farms	% of total farms	Beds	Nights
Austria (1991)	28 000	8.0	300 000	
Finland (1982)	2 000	1.0		
	4 000 ¹			630 000
France (1990)	20 000	2.0		10 000 000
Germany (1991)	23 000	3.0		
Ireland (1982)	500	0.2		
Italy (1990)	7 000	0.4	100 000	8 000 000
Spain (1980)	8 000	0.4	32 000	7 000 000
UK (1990)	10 000	4.0		
	10 000 ²			

Notes: ¹Farmer-owned cottages.

²catering accommodation.

in terms of family labour. Besides, the lack of stewardship could begin to have an adverse impact on tourism, creating a vicious circle within the rural economy.

A REVIEW OF POLICY TOOLS TO INDUCE COUNTRYSIDE STEWARDSHIP

Countryside stewardship has been historically ensured by the framework of property rights, regulations and, in some countries, through state purchases and management of land, especially forests. As agricultural practices and the perception of countryside benefits developed, information and advice have also been used to stimulate stewardship. More recently, as the demand for amenities has increased while the supply has decreased, financial instruments and market-led measures have become more popular. Trusts and amenity societies also play an important role. At present, countryside stewardship is promoted by the set of tools reported in Table 9. Property rights, however, remain the overall framework within which the other tools operate.

Property rights and regulations

Property rights and regulations, though dynamic and evolving in step with socioeconomic development, derive from ethical and cultural traditions. Land use definitions and codes of practice are the oldest and most tested tools. Changes, particularly to forests and meadows, can be prohibited. Certain practices can be made compulsory, often through collective organizations, for soil protection and watershed management. In the mountain areas of

TABLE 9 *Mechanisms designed to induce countryside stewardship*

PROPERTY RIGHTS	DEFINITION AND ASSIGNMENT		
Regulations	Standards, licences, etc	M A N D A T O R Y	
	Planning		
	Public bodies: purchase and land management		
Persuasion	Information	V O L U N T A R Y	
	Advice		
	Extension		
	Cross-compliance		
Financial Instruments	Compensation	V O L U N T A R Y	
	Grants and incentives		
	Tax concessions		
Market-led measures	Management agreements and covenants	V O L U N T A R Y	
	Auction of incentives		
	Commoditization		(Direct)
			marketing of environmental goods
			(Indirect)
marketing of products jointed with stewardship			
	Conservation amenity recreation trusts purchase and/or land management		

countries like France, Italy and Switzerland, these regulations have been applied for centuries. Forestry, water and soil protection administrations were set up to enforce them. In addition to the more general legislation, a series of environmental standards, and sometimes licences, have been established more recently to deal with specific problems. These measures are often integrated within land use planning processes generally managed by local authorities. Forestry planning is perhaps the oldest example, though urban development planning, given its economic and environmental impact, is the most well known. In some European countries it also involves rural landscapes. Little has been done, however, in agriculture. There have been attempts to develop agricultural zonal plans (in Italy in the 1960s and 1970s)

intended to combine economic and physical planning. Their complexity, and inadequate financial support, soon led to their being abandoned. The idea of an agri-environmental zonal plan has nevertheless been taken up in the 1992 CAP reform.

Purchases and land management by public bodies

State purchase and management, especially of forest land, has been used to protect designated areas of high natural value. Public agencies such as the forestry enterprises of France, Italy and the UK have been set up to manage this land. The experience in general has been positive; however, devolution has often taken place from state to regional and local authorities. Although this land is still, and will remain, in public hands, neither purchase nor management are now considered the most effective tool for maintaining stewardship. Administrative costs are generally reckoned too high.

Persuasion and cross-compliance

Measures of persuasion, through information, advice and extension services, have been developed to facilitate the implementation of various tools. Generally, this task has been assigned to the administrations responsible for enforcement. In some cases para-state bodies have been employed (such as the Countryside Commission in the UK). Thanks to modern mass-media, persuasion has become more effective in modifying farmers' and foresters' behaviour. An equally important role is played by general public information. Demand for stewardship and behaviour in the market are therefore influenced. Where persuasion does not work, cross-compliance (that is, respect for countryside stewardship as a condition for gaining access to other support schemes) has emerged as a powerful instrument to induce stewardship, thereby 'coercing' farmers and foresters. Elements of the cross-compliance approach were included in the 1992 CAP reform which allows higher rates of compensation, providing certain environmental standards are met (for example, as regards livestock density).

Financial instruments

Financial instruments have also been used for many years in order to guarantee traditional stewardship. At least since the beginning of this century, subsidies have been employed to ensure land afforestation and watershed management, and more recently to promote amenities. Quite clearly, the financial instruments follow a Pigouvian rationale aimed at internalizing positive stewardship externalities. Payments provided to farmers and foresters can take the following forms:

- (1) Compensation to make up for higher costs and/or lower revenues to

attain stewardship; for example, from wildlife and sport damage, adoption of cultivation standards and conservation practices. Compensation schemes have been applied in many areas where farming is profitable.

- (2) Grants and incentives (lump sums or annual payments) to encourage farming and forestry practices which would otherwise be neglected. Grants and incentives schemes have been applied above all in mountain and less favoured areas where farming is not so profitable.
- (3) Tax concessions are perhaps the oldest financial instrument applied to secure both traditional stewardship and amenities. They reflect the same rationale as grants and incentives.

It is sometimes difficult to frame the exact nature of the various financial instruments, in particular the difference between compensation aimed at re-establishing the status quo, and grants, incentives or tax concessions aimed at encouraging otherwise neglected practices. An example is the 1992 CAP reform agrienvironmental measures providing payments to farmers who undertake certain practices or forestry investments. It is clearly stated that these payments have to be proportional to any increase in costs or loss of income. However, their application according to a flat rate in each region inevitably gives some farmers and foresters compensation higher than their forgone income. In other words, their revenue for producing environmental goods contains a certain amount of producers' surplus. This fact has been demonstrated by Whitby and Saunders (1994) by comparing codified and standard rate payments with differentiated compensation agreed with individual farmers. Quite clearly, codification and standard rates constitute the main shortcomings of financial instruments (Colman *et al.*, 1992; Bishop and Philips, 1993). They have also been criticized for undermining farmers' ethical commitment to stewardship (Colman, 1994). Therefore an inherent risk in financial instruments is paying for something which farmers and foresters would do anyway, with lower payments or none at all.

It should be clear, in any case, that payments made by public bodies cannot be related to the entire value of the countryside benefits, as measured by the area under the demand curve. Otherwise, not only producer, but also consumer, surplus would be fully transferred to farmers and foresters, with ethical implications that are even less acceptable. Nevertheless, the measurement of countryside benefits remains essential for applying financial instruments in order to select cases where stewardship should be remunerated to maximize net social benefit.

Market-led measures

Market-led measures, widely discussed in recent years, advocate a Coasian rationale. In particular, they should overcome the objection often made to financial instruments of being indiscriminate and unethical. At least three market-led measures may be identified:

1. Management agreements

These provide payments subject to negotiation between farmers and the responsible public authority. They are partly Pigouvian, in so far as positive externalities are internalized, but also Coasian in that a 'quasi-market' approach is adopted. With respect to standard incentives, they should avoid possible excess payments, resulting in farmers' rent. At least in theory the negotiation process should approximate the remuneration of countryside stewardship to the marginal cost incurred by the farmers, plus the profit necessary to stimulate the agreement. Payment of producer surplus to farmers and foresters should, however, be avoided. Of course in order to maximize the net social benefit, the competent authority should have a clear-cut vision of the countryside benefits in question. The auction of grants and incentives could improve the effectiveness of such schemes.

Management agreements have been applied for some time in the UK (Bishop and Philips, 1993; Colman *et al.*, 1992) and the Netherlands (Slangen, 1992). High transaction costs seem to represent their major limitation (Whitby, 1994), though they may diminish with the greater experience gained through wider

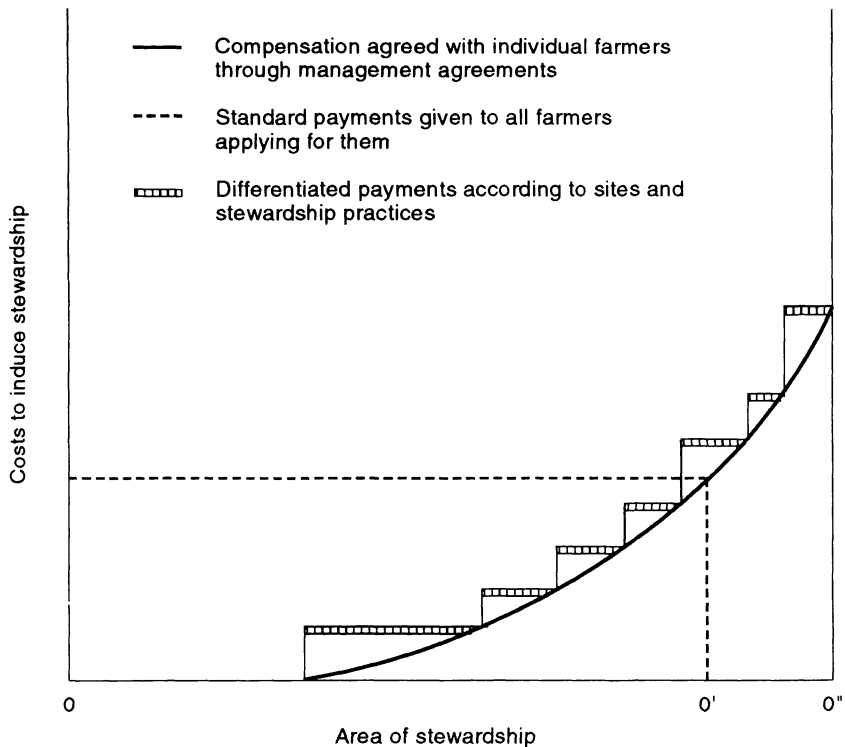


FIGURE 2 *Management agreements compensation versus standard payments*

application. A compromise solution, between the compensation agreed through individual management agreements and the standard payments given to all farmers applying for them, is given by differentiated standard payments referred to sites and specific stewardship practices. Figure 2 is designed to show how carefully differentiated and calibrated payments could induce stewardship in all areas of stewardship, avoiding excess payments as well as the high transaction cost of management agreements. This option has been chosen by several European countries and regions in applying the recent 1992 agri-environmental measures component of the CAP reform.

It has also been argued that initial assignment of environmental property rights to the community could improve the final results. Bromley and Hodge (1990) emphasize that assigning what they call 'countryside community attributes' to the public at large rather than to land owners could lead, in theory, to a better provision of countryside benefits as a consequence of the divergence between willingness to pay and willingness to accept payments. However, it can also be observed that assigning the rights to the public at large would disadvantage farmers and foresters and could lead to land abandonment, particularly in marginal areas. A more extended view of management agreements, requiring contract registration, is given by so-called 'covenants'. These are legally binding land management agreements. If permanent, they are attached to the land. From the community's point of view, they represent a stronger commitment and a guarantee of stewardship.

2. Commoditization

According to a pure Coasian approach, this foresees specific markets where farmers and foresters can sell countryside benefits directly to consumers. Unfortunately, the main premises required by Coase's theorem are often lacking. Definition and assignment of property rights is certainly the crucial issue. In many countries, rights to access, hunting and fishing, mushroom and chestnut picking, for example, are treated as *res nullius* (free goods). Neither regulation nor assignment of rights to farmers or foresters has taken place. Transaction costs also make it difficult to market these benefits, regardless of whether such costs are met by public bodies or by the contracting parties. The role of a pure Coasian approach must not be exaggerated (Bromley, 1991; Zamagni, 1994). However, the strong point remains the local nature of countryside stewardship whose supply and demand is relatively easy to manage, whether by individuals or by associations of producers and users making *ad hoc* agreements. This possibility has been widely applied in traditional stewardship (for example, with reclamation and drainage consortia in which even non-farmers are associated). Extension to amenities does not seem impossible. This largely unexplored path could play a key role in defining environmental policies. Of course, practical solutions must be associated with local rights and customs, such as sale of access permits for recreation, sports, product picking, car parks, camping sites, farm accommodation or the organization of nature trails.

3. Marketing of products

The marketing of products 'jointly' with stewardship can be practised wherever direct selling of countryside benefits is impossible. Stewardship could be

remunerated by selling traditional quality products, with the price being influenced by stewardship and more generally by the environment in which they are produced. This is clearly a case of product jointness. Long established experience in this field should not be overlooked (for example, with *appellation d'origine contrôlée* wines and other products, agritourism, or activities allowing conservation of unique landscapes, land structures and rural culture). In the case of wine, regulations (aimed at consumer protection) were established, limiting the right to use the guaranteed origin label to local producers alone, provided there has been adherence to certain procedures, sometimes including stewardship practices. Thus the market rules have been modified (giving rise to differentiation and monopolistic competition in markets), allowing remuneration, not only for product quality, but also for the related agricultural practices and the environment. These policies, which originated in Latin countries, are now proposed by the EU for many other products of controlled origin and quality and in particular for organic products. An important role will also be played by the policy of eco-labels proposed for many products which, in the case of agriculture, should certify the countryside benefits associated with agroforestry production. Given the growth of 'green consumerism', and the sophistication and willingness to pay of European consumers, these policies seem to have a future and therefore an impact on the conservation of rural amenities.

Trusts

Trusts for conservation, amenity and recreation have recently assumed an important role in promoting countryside stewardship. Purchase of land can be considered when important countryside features have to be protected and enhanced. In other cases, leases, management and acquisitions of specific rights have been used. These non-governmental organizations are playing the role once assigned to public bodies. Quite interestingly, the flexibility of these trusts favour, where possible, marketing of environmental goods, thereby allowing direct remuneration of stewardship.

SOME FINAL REMARKS AND POLICY IMPLICATIONS

The following points emerge from the preceding discussion:

- (1) The importance of shaping agricultural and forestry policies to the needs of countryside stewardship, a point which has already been accepted in principle by the EU in the CAP reform and included in the Green Box of the GATT Treaty.
- (2) The need to act at local level where stewardship measures can be better understood, applied and monitored in all their possible effects.
- (3) The opportunity to employ different tools at the same time, from property rights and regulations to the more recent market-led approaches. Transaction costs must be taken into account.

- (4) The definition and assignment of property rights is of crucial importance to the outcome for all policy tools. Caution is required when adopting further environmental standards. Stewardship imposition may lead to land abandonment, especially in marginal areas.
- (5) Remuneration of stewardship by public bodies should be exercised with great caution to avoid both making excess payments and undermining existing ethical commitment to stewardship.
- (6) As yet, there are unexplored opportunities for ensuring stewardship by adopting market-led measures which might be applied by means of market regulations, definitions and assignments of property rights both to farmers and to the general public.
- (7) Market-led measures applied to stewardship appear to involve a certain degree of organization of supply by agriculture and of demand by the public.
- (8) Trusts and amenity societies may play an important role, given their flexibility and adaptability to market approaches.
- (9) In undertaking public intervention to stimulate stewardship, intragenerational distributive effects should be considered, remembering that residents in rural areas, particularly in northern and central Europe, are not as underprivileged as they were in the past.
- (10) Consideration should be given above all to intergenerational redistributive effects, taking into account option and existence values. The absolute need for public intervention remains when well recognized option and existence values are jeopardized.

In conclusion, countryside stewardship implications go beyond agriculture and forestry. Nevertheless, stewardship can, and perhaps should, be dealt with, first of all, by agricultural and forestry policy, and only secondly by environmental and socioeconomic policies. After all, it is just one of the many environmental and socioeconomic problems facing our societies. Therefore countryside stewardship should be seen in its own right and not be exaggerated or distorted by environmental and agricultural lobbies.

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