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Experience with agri-environmental schemes in EU and non-EU members[1]

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Abstract (*148 words*)

This paper primarily illustrates the great diversity of Agri-Environmental Schemes (AESs) in the world. Given a common legislation, the European Union (EU) shows a wide variety of implementation patterns across Members. This results from a series of factors among which a key one is the distribution of public support between the two pillars of the Common Agricultural Policy. This discriminates former EU members and new entrants. In addition, past experience with environmental policy also accounts for differences between the two categories. Indeed, former entrants have applied a less ambitious policy than new Members. Otherwise, a successful implementation of AESs requires an effective participation of local actors, as well as simple and transparent administrative procedures. This is acknowledged by the new rural development regulation.

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1 Introduction

Farming affects the environment in many ways, generating negative and positive effects. Neither reduction of negative externalities nor simulation of positive ones can be achieved at a satisfactory level on the basis of market activities, there is therefore a need for agri-environmental schemes (AESs). They are often considered as a means to both support farm income and comply with the World Trade Organization provisions. Indeed, there is a shift from price support towards AESs.

A number of countries have experienced AESs targeting the reduction of negative externalities. In contrast there is a few schemes whose goals are related to the provision of benefits. Most of them are applied in Europe under the umbrella of multifunctionality. This concept stems from the fact that agriculture generates many beneficial effects which are not easily measurable and are not valued in the market place. Since they have a social value, it is justified on economic grounds to compensate farmers for providing these non-commodity outputs. Multifunctionality therefore allows the integration of agricultural, environmental and rural policies.

The primary difference between AESs is they do not address the same problems. Key explanatory factors are related to the resource base and to society preferences for the environment as well as political considerations as it is emphasised in a comparison between the European Union (EU) and the United States (US) (Baylis *et al*., 2003). But, are schemes similar when environmental concerns are close?

A first comparison between the EU and a sample of countries allow to clarify differences and similarities between AESs in the world. This sample includes among others the US, countries such as Argentina whose agriculture and food sector have an important contribution to the overall economy, and countries such as Switzerland and Japan where agriculture is marginal from an economic perspective. The support to farming, assessed by the producer subsidy equivalent, ranges from about zero up to 75%.

Regarding common EU agri-environmental policy, a comparison of nine nationally implemented schemes is proposed. This comparison leads to a global typology of implementation strategies according to the initial situation of countries and their place in EU construction history. We show that the common agri-environmental policy is implemented in various different ways. Some ways, by specific aspects can be qualified of successful, whereas some others are not. This comparison is based on the results of the European project ITAES, involving European research teams, studying ten European regions and countries: Flanders in Belgium, Brandenburg in Germany, Basse-normandie in France, Veneto and Emilia Romagna in Italy, Friesland in the Netherlands, North-East England in the United Kingdom, Finland, Ireland and the Czech Republic.

2 Lessons from international experiences

2.1 Categories of policy instruments

AESs provide either a response to the pressures of farming on the environment or a means to encourage opportunities that agriculture creates for the environment. The wide variety of specific policy instruments ranges from voluntary to mandatory approaches (Claassen *et al.*, 2001; Gatto and Merlo, 1999; OECD, 2003a).

Voluntary approaches include persuasion (information, advise, extension, education) and market creation, pure marketing needing some institutional change. Labelling standards for private goods helps create efficient markets for goods produced with environmental sound practices. Certification standards will generally be effective only where private gains from participation can be captured in a market setting. Organic farming as well as a number of AOCs provide examples where farmers are remunerated by selling commodities with the price being positively influenced by the technology which is applied.

In contrast, a command-and-control approach to public policy is one where political authorities simply mandate the behaviour in law, then use whatever enforcement machinery (courts, police, fines) is necessary to get people to obey the law. In the case of farming, this approach consists of relying on a number of standards of various types to bring about improvements in environmental quality. Zoning, restrictions and bans on certain substances as well as prescribed practices are very popular worldwide.

As a matter of fact, politicians and the general public prefer regulation while economists are more inclined to recommend economic incentive-based policies. They can provide payments to encourage environmentally beneficial activities, or levy charges designed to discourage environmentally harmful activities. Liability is a third type of economic incentive. The basic idea is that if a farmer harms someone, it must compensate this person for damage. The important issue is that the farmer take all potential damage from his activity into account when deciding how carefully to operate. This creates an incentive and allows to internalise external effects as subsidies and taxes do.

Cross-compliance mechanism refers to the linking of environmental conditions to agricultural support payments (Baldock and Mitchell, 1995). Compliance with a series of restrictions related to the environment, food safety or animal welfare is required to be eligible for other schemes. Thus *ex ante*, each farmer has to compare additional costs involved by the compliance mechanism to the additional benefit from the support scheme. This instrument indirectly results into the provision of positive externalities. Nevertheless the voluntary nature of cross-compliance mechanism may be questioned. Indeed, where support payment are high, it is very close to a mandatory tool (OECD, 2003b).

Finally, from a positive perspective, the real nature of AESs has to be acknowledged. Most are voluntary in nature and involve farmers entering management agreements in return for financial compensation (Ozanne *et al.*, 2001). Compensation takes into account profit foregone and the need to provide an economic incentive to change farming practices. There is some evidence that participation rate is increasing with the level of compensation. They have been developed by policy-makers and lobbyists to provide pragmatic responses to new policy problems.

2.2 Characteristics of schemes

The main environmental impacts of agriculture on the environment are related to soil erosion, water quality degradation and wildlife habitats. Soil erosion is mostly associated with grain production and sheep breeding. It is traditionally linked with the use of marginal land including highly erodible soils and drained wetlands, and generates adverse effects both on-site and off-site. Major exporting countries have experienced soil erosion problems which in some cases threaten long-term soil productivity. Encouraging farming practices which prevent land degradation due to erosion, salinity, continuous cropping or deforestation is then a key issue to achieve a sustainable agriculture. Conservation programmes have been designed and implemented in a number of countries such as Australia, Argentina, Canada and the US, where a large share of cropland is impaired by erosion. These voluntary schemes combine persuasion with financial compensations to farmers applying approved soil conservation practices. Those programme menus vary with society's willingness-to-pay for the conservation of environmental resources. It is limited to extension effort and modest compensations in Argentina, while more ambitious initiatives exist in the US. Australia favours training and extension through local committees thanks to the *landcare program*.

Water quality protection has been a major component of environmental policies since the sixties. Most of the focus of clean water legislation has been on point sources, primarily the discharge from factories and municipal waste treatment plants. Attention has turned quite recently to non-point sources, primarily nitrogen and phosphorus runoff from agricultural operations. This is an issue, at least locally, in all countries which have been reviewed. It is more serious in areas with a high population density where the ratio of land to other inputs is low. There is a correlation between the most serious water problems and large-scale livestock enterprises. Indeed harmful effects resulting from manure spreading add to those due to an overuse of mineral fertilisers and chemicals. This is illustrated by many high polluted spots in the EU but also in some places in Canada and the US. Otherwise, intensive cropping on irrigated land also leads to nitrate and pesticides problems as shown by cotton production in Australia. The recent growth of irrigated corn in the Argentinean Pampas will likely lead to water quality degradation.

Policy responses to environmental damage resulting from intensive livestock farming mainly rely on command-and-control. Land-use controls including zoning, public purchase of land and easements targeted at critical areas for protecting water resources are widely implemented. In addition, permits for the largest installations and standards related to manure storage on the site and disposal of manure are commonly used. In a number of cases operators are committed to produce a farm level nutrient management plan that demonstrates that waste is being safely collected and disposed of. Economic incentives primarily take the form of cost-sharing with grants and low-rate loans for complying with regulations related to housing and manure storage installations. The Netherlands have experienced a more ambitious scheme with a tax put on nitrogen and phosphorus surpluses. The use of environmental taxes as an agri-environmental mechanism remains very limited, though a few tax programmes do exist. For instance, a number of States in the US have input taxes, mainly on fertilisers. But there are applied for revenue generation rather than environmental protection. Since their rate is low they lead to a modest diminution of fertiliser demand.

In contrast to pollution from point sources, programmes for reducing pollution from agriculture are mostly based on voluntary approaches providing education, technical and cost-sharing assistance. They therefore involve a transfer payment form tax payers to farmers. Otherwise they are very complex to implement, control and enforce, and finally water problems persist. In spite of a growing public concern about runoff from

agriculture, public policy still remains inefficient. A series of lawsuits illustrate the disagreement of citizens who suffer disamenities from livestock farming or defensive expenditures involved by nitrate contamination of water. Paradoxically in our developed societies, agriculture maintains a profound political influence, the practical consequence of which is that agriculture has been somewhat indulged and favoured in comparison with other activities, especially concerning polluting emissions. Implicitly, agriculture benefits presumptive property rights that have distorting effects (Bromley, 1997).

Distorting effects are also generated by water-pricing policies. They do not provide adequate incentives for farmers to use water resources efficiently and therefore do not ensure a balance between abstraction and recharge of groundwater. This market failure results into a decrease of production costs and contributes to exhaust the resource. Several examples illustrate this case in Argentina, Australia and the US. In the long run the implementation of the water framework directive of 23 October 2000, is likely to result into more efficient water schemes which should be consistent with the polluter-pays principle in the EU. Indeed, according to the principle of recovery of the costs of water services, including environmental and resource costs, farming should be charge for both water consumption and negative externalities. A similar decision has been made in Australia.

Europeans as well as Japanese view the countryside and to some extent the natural environment as man-made while a number of people, including Americans and Australians, see nature as being undisturbed by any human activity (Hodge, 2000). These contrasted sensibilities are rooted in a long history and are exacerbated by the pressure of a high population density on natural resources. They lead to very different preferences related to the balance between commodity and non-commodity outputs. In the former case, farmers are subsidised to pursue traditional practices and maintain pastures on lands that would otherwise abandoned, while in the latter case farmers are paid to return farmland to wilderness.

EU AESs focus on the positive environmental externalities generated by agricultural production. They assume that either separate provision of commodity and non-commodity outputs is not physically possible or economies of scope exist. Since prices do not exist for non-commodity outputs, there is no market mechanism that ensures that social optimum is achieved. Farmers do not have incentives to internalise the environmental benefits into their activities when decisions are made. If commodity and non commodity outputs are substitutable then the agri-environmental performance is likely to be sub-optimal (Bonnieux and Weaver, 1996). If there is no adequate scheme or regulatory framework, there is an under-supply of positive environmental externalities relative to the levels that society desires.

AESs are justified on conventional economic grounds once the positive externalities generated by agriculture are considered. Compensation takes into account profit foregone and the need to provide an incentive to change farming practices. Do they significantly impact commodity supply leading to trade distortions or not still remains an open question. There are however the non-commodity output supports a market activity such as agri-tourism. In particular a beautiful landscape maintained by traditional farming practices is an input to tourist trade. The policy agenda include similar initiatives in Japan and Korea while Switzerland relies on compliance mechanisms which tie the receipt of benefits from unrelated schemes to some level of environmental performance (Bonnieux and Rainelli, 1999). The high level of farm support is mainly justified by multifunctionality arguments in Switzerland.

3 National implementation of the EU common framework

All EU members have to apply the rural development regulation 1257/99 that establishes the framework for Community support for sustainable rural development. By enacting this legislation, the objective was to ensure better coherence between the two pillars of the Common Agricultural Policy: prices and market policy (1st pillar) and rural development (2nd pillar). Rural development programmes are very diverse all over the EU, which illustrates significant differences with respect to national and local conditions. The ITAES project thoroughly considers the environmental component of rural development programmes and emphasises the role of key factors for accounting differences in policy implementation.

Table 1: Most significant pressures

(Ranked by decreasing order)

Flanders	1. Water pollution (nitrates & pesticides) 2. Intensive energy use (horticulture) 3. Acidification 4. Air pollution (greenhouse gasses)
Czech Republic	1. Biodiversity & landscape loss (land abandonment in mountainous areas with a valuable environment) 2. Water pollution 3. Soil erosion (mountainous areas) 4. Flood (mountainous areas)
Brandenburg	1. Biodiversity loss 2. Water pollution 3. Soil erosion
Basse Normandie	1. Biodiversity & landscape loss (conversion of grassland, drainage & abandonment of wetlands, destruction of hedgerows) 2. Water pollution (nitrates) 3. Soil erosion 4. Flood (sea tides, urbanisation)
Ireland	1. Water pollution (nitrates & sediments) 2. Biodiversity loss 3. Air pollution (greenhouse gasses & ammonia concentration) 4. Soil erosion (overgrazing on hillsides)
Veneto	1. Water pollution (nitrates in lowlands) 2. Biodiversity & landscape loss (conversion of grassland, drainage of wetlands, destruction of hedgerows) 3. Soil erosion (mountainous areas) 4. Flood (mountainous areas)
Emilia Romagna	1. Water pollution (nitrates) 2. Food & environmental contamination (pesticides) 3. Biodiversity & landscape loss (destruction of hedgerows & tree rows) 4. Flood 5. Soil erosion (uplands and hills) 6. Air pollution (greenhouse gasses)
Friesland	1. Water pollution (nitrates) 2. Biodiversity & landscape loss
Finland	1. Water pollution (nitrates & phosphorus) 2. Biodiversity & landscape loss (land abandonment in the north & intensification in the east & south)
North East England	1. Water pollution 2. Biodiversity & landscape loss 3. Threat to historic features 4. Soil erosion

3.1 The role of environmental conditions

In each case study area, environmental pressures have been ranked according to scientific evidence and experts' knowledge (Table 1). This provides an overall assessment of the environmental situation and preoccupation at the case study level.

There is evidence that policy primarily targets environmental objectives, which are consistent with the most significant pressures. However landscapes and biodiversity protection are often viewed as a secondary objective, which should be achieved either through the maintenance of farming or the protection of water resources.

In the Czech Republic the 1990's transition has been associated with a diminution of the environmental pressure because of an extensification process, and problems occurring because of land abandonment. In central Moravia land abandonment is a crucial issue to deal with in mountainous areas, which benefit a valuable environment whose richness is threatened by a risk of loss in biodiversity and landscapes. A global deterioration of soils also occurred from water and wind erosion, due to the destruction of hedgerows and small woodlands, as well as soil compaction because of improper mechanisation. Northern and Eastern Finland face a similar challenge, a dramatic land abandonment increase leading to a degradation of biodiversity and landscape. In other places, located in the south and west of the country water eutrophication because of an increasing use of nitrogen and phosphorus is the most challenging objective. Policies applied in Emilia Romagna primarily address water pollution due to an over-use of nitrates and pesticides, and land abandonment.

Otherwise the protection of water resources is the leading policy objective. For instance, the Irish Environmental Protection agency held agriculture responsible for the majority of fresh water eutrophication. However, in addition the decline of the species and habitat diversity has also been attributed to agriculture. In Veneto, the water issue is particularly challenging because of pollution of highly valuable tourist spots such as the Venice Lagoon where there are catchment basin specific problems. Being a rather close lagoon with a limited water recharge, pollutants (nitrates phosphates, heavy metals) accumulate on the sea bottom. This leads to very severe pollution and eutrophication problems. Hence this area is specifically monitored. Water pollution is also a main priority for Brandenburg, North East England and Flanders.

The protection of historical landscapes such as hedgerows in Basse Normandie, Emilia Romagna and Veneto, and walls in North East England is also targeted. The protection of meadow birds may be also a first policy objective as illustrated by Friesland.

3.2 The role of farm support

Of course a significant factor underlying implementation differences is the overall level of public support, and the mix of payments under the 1st and the 2nd pillars. From this perspective former EU members and new entrants depict very different situations. While new members benefit a lower level of support per hectare, they receive relatively much more money through rural development programmes (Table 2).

All measures included in the rural development regulation are very relevant to rural development in accession countries, since they face far deeper socio-economic problems than most regions in the former EU (Dupraz, 2005). Although AESs have been proposed in all accession countries either under national initiatives or under

the umbrella of pre-accession funding (SAPARD framework), new members have a limited practice of this policy approach.

Table 2: CAP budget New Member States, EU 15

	Total budget (Million Euro)		**Total budget per hectare** (Euro)	
	1st pillar	2nd pillar	1st pillar	2nd pillar
10 new members*	1560.3	1703.3	40.7	44.5
EU-15**	38953.2	6699.7	302.7	52.46

Sources: EEA, environmental issue report, N° 37; Agreste, Juin 2005; own calculation
*Average figures 2004-2006
**Average figures 2002-2003

Globally for EU-15, AESs amount for one-third of support under the 2nd pillar, which equals 5 % of the whole CAP spending. However, there is great diversity among these former members as shown by Table 4. Indeed, the ratio between the 2nd and the 1st pillars is over 60% in Finland, around 20% in Italy, Ireland, Germany, and ranges from 5 to 10 % in France, Netherlands, United Kingdom and Belgium.

Table 3. Distribution of CAP spending according to countries and pillars in 2003

	1st pillar (million Euro)	2nd pillar (million Euro)	2nd pillar / 1st pillar 1 (%)
United Kingdom	3818.1	188.5	4.9
Netherlands	1289.5	73.4	5.7
Belgium	970.2	62.5	6.4
France	9578.8	934.8	9.7
Ireland	1602.5	357.6	22.3
Italy	4715.9	1233.4	26.1
Germany	5043.7	1344.5	26.7
Finland	537.1	360.3	67.0

Source : Agreste, June 2005

AESs can be effective to support farming (e.g in Finland) or only instrumental either to modify farmers' behaviour toward more environmental friendly practices, or to prevent more harmful practices.

3.3 The role of history

At its founding in 1957, the European Economic Community was primarily an organization linking six like-minded states to boost economic prosperity and to improve social cohesion. Concerns related to interface between farming and the environment emerged in the early 1970s at the European level. In fact, over the course of the last decades, and especially from 1985, EU Agri-environmental policy has gradually expanded. Resulting from ideas and practices taken from different countries, European legislation provides a precise and comprehensive framework. But, past experience with agriculture and the environment, environmental concerns, institutional arrangements and lobby strategies lead to various different implementation of agro-environment across Europe.

3.3.1 Former members

In former members of the UE, eligibility to AESs was primarily based on the designation of specific areas (zoning). According to holding location, farmers can apply to one or several schemes or measures. This situation concerns all schemes in a region or a mix is available with basic measures proposed to all farmers and specific ones reserved to farmers in specific areas. For example, environmental characteristics are used to target sensitive areas where farmers are eligible to specific schemes, other schemes being proposed to farmers who have no parcel in these areas. Zoning is established according to different criteria: mainly environmental criteria as in Friesland or mainly geographic criteria as in Emilia-Romagna.

In Friesland, ten regional plans have been developed. These plans deal with sub-plans among which there are: landscape area, management area and problem area plans. Each area is meant for AESs focusing respectively on landscape, wildlife management, and less favoured areas. Schemes are offered to farmers who wish to contract according to the belonging of his land and to the regional plan. In 1993 a new policy instrument was proposed in order to favour meadow bird protection, which is a great concern in Frisian culture for a long time. Free contracts, i.e. contracts not attached to a specific area, were designed.

In Emilia-romagna, the rural Development Programme comprises eleven measures focusing especially the abatement of polluting substances and the provision of positive environmental services. Elibility rules are based on a topographical zoning that distinguishes land in plains, hills or mountains. In addition “agri-environmental agreements” target areas where relevant environmental problems exist. Priority is given to farmers whose parcels belong to areas involved in agri-environmental agreements.

Several objectives can be integrated in a single scheme, while eligibility rules may be relaxed in order to increase the possible number of entrants in AESs. This policy orientation is likely to result into very complex mechanisms as illustrated in France by the shift from regulation 2078/92 to regulation 1257/99 and the design and implementation of the CTE (Farming Territorial Contract). This multiple objective policy instrument resulted into intractable cases. In Basse-Normandie, a hundred measures were initially proposed to farmers. To apply for CTE farmers had to draw up a farm diagnosis and to design a global farming project. According to the CTE approach, farmers could opt either for an individual strategy integrating the economic and environmental farming, or a territorial strategy aiming at global objectives.

3.3.2 New members

Implementing the Common Agricultural Policy given the *acquis communautaire (community patrimony)*, leads to institutional innovation. This is particularly true for AESs where the subsidiary principle applies widely. Regarding this issue, the stories of Finland and of the Czech Republic are similar to a certain extend. In both countries, a dramatic change in the policy mix applied to the farm sector imposes the AESs as an important tool to support farm income. Horizontal schemes with basic measures and relatively high incentives benefit most farmers. Their design and implementation involve new collaboration between the ministries of agriculture and environment, and the introduction of new tools to monitor and enforce the schemes.

In Finland, the accession to EU created a shift in agri-environmental policy. Indeed, it experienced an original way to deal with the relations between farming and the environment. Before entering the EU, agricultural policy was jointly designed by the agricultural administration and farmers’ union, this co-decision process being justified by the concept of ‘agricultural policy community’. Farmers were acknowledged as the best

guardians of the countryside so the philosophy was to entrust them with the protection of the environment. Increasing public concern about detrimental impact of farming on the environment combined with scientific evidence showing agriculture as a serious polluter boosted the design of the first national environmental programme for rural areas approved in 1992. According to this programme environmental issues in rural areas must be considered at the central government level, with both the Ministry of Agriculture and Forestry and Ministry of the Environment in charges. This is a significant change in policy orientation with a shift from the traditional Finnish concept of 'agricultural policy community'

In Finland the current agri-environmental programme combines a General Protection Scheme targeting all farmers and a supplementary Protection Scheme that includes more specialized and effective measures targeting voluntary farmers. The former scheme proposes basic and additional measures. Basic measures are designed to secure implementation of AESs in the whole country (as basic fertilization levels of arable crops or maintaining biodiversity and landscape), while additional measures take into account special conditions of different types of farms. Farmers have to apply basic measures but select additional ones according to farm types. Thus accurate fertilization measure is offered to crop farms whereas promoting animal welfare is for livestock farms. Once the General Protection Scheme is implemented, farmers can also choose measures in the Supplementary Protection Scheme. Basic measures are applied on the whole farm, whereas additional and special measures are applied on specific parcels.

In the Czech Republic, despite the implementation of pre-accession schemes, a dramatic change in public policy resulted from the last enlargement, especially regarding AESs. In 1999, the installation of the Czech Republic agrarian policy for the 1999-2003 pre-accession period was launched. It put emphasis on agri-environmental issues. A government decree in 2000, intended to harmonize the second pillar measures. It embedded less-favored areas and AESs into a single legislation. Proposed agri-environmental measures included both measures taken from the former programme and new measures. The contract length is short but the package of measures is available over several years. Tasks related to scheme promotion, information, dissemination and technical support are dependent on personal activities of officers of local agricultural agencies of the Ministry of Agriculture.

SAPARD programme introduced five-year contracts. In contrast to the previous simple and horizontal schemes, these contracts targeted pilot areas and were area-specific. Experts from the Ministry of the Environment and from its landscape and nature protection administration played an essential part in designing areas and required actions. Hence, there was an important change in the governance of agri-environmental policy with a shift from a narrow agricultural perspective to a broader one involving environmental interest. Co-operation with the Ministry of the Environment and its conservation agencies should improve the designation of conservation goals and lead to a better targeting of individual sub-measures.

Since 2004 the horizontal rural development plan is mainly based on pre-existing horizontal measures launched in 2000 (grassland maintenance, organic farming and conversion from arable to grassland), with the growing of catch crop in addition.

3.4 Keys for a successful agri-environmental policy

Since AESs offers farmers a means to get additional money in countries that have joined the EU in the 1990s as well as in new entrants, the highest rates of adoption are observed in Finland and the Czech Republic.

In the Czech Republic, total public expenditure of AESs has tripled with the EU accession, however the SAPARD programme applied to pilot areas was not successful. The main obstacle to a higher farmers' uptake has been the unfinished process of setting agreements between farmers and land owners (in some cases the owner was not even known). The second important obstacle was a significant administrative burden on farmers. Surprisingly the success of the 2nd pillar has been due to horizontal programmes. Uptake widely varies across the different measures of the Horizontal Rural Development Plan. Farmers positively reacted for area paid measures; like grassland maintenance or catch crop growing: 800 000 ha of permanent grassland from a total of 950 000 have been enrolled into these schemes that now extend practically over all grassland in the Czech Republic.

Regarding the initial Czech Republic objective which was to fight against land abandonment, the agri-environmental policy has been successful. But the unexpected high application of measures of extensification generates new challenges due to land abandonment and population diminution in specific areas highlighting socio-economic problems.

In Finland, basic measures included in the General Protection Scheme are mandatory, which leads to an additional farm support throught AESs. In 2002, basic measures covered about 92% of active farms and 93% of arable land. Environmental support amounts for a significant share of farmers' income since it equals about 17% of all agricultural support. The mandatory aspect of basic measures is of course an important key in the success of AESs, but it has to be emphasized that lots of actors have been involved in the design step of such a policy.

First the 2000-06 Finnish Agri-environmental programme has been prepared by a working group in which people had been working together since preparing the first rural development programme (1992) and the following (95-99) nearly a decade earlier. This interaction, plus 10 years of policy experience and accumulation of information concerning agri-environmental issues affected significantly the policy formation. As a result, the preparing process of the new programme occurred without any major disagreements. Moreover, the draft version of the agri-environmental programme was circulated to and commented on by nearly one hundred actors from regional and local level administration, different organizations and business. Furthermore, their comments were actually taken into account in the final version of the programme. This point appears as a key factor for a good understanding between farmers and government leading to a good acceptation of AESs.

In former member states, original ways of implementation can be noticed, even if the adoption rate of AESs remains relatively modest. In Friesland, as in Finland, local actors take a great part to the implementation of AESs. The leading role of environmental cooperatives in tailoring measures to the local context has to be emphasized. In cooperatives, many groups of farmer volunteers to test measures before implementation are also active in protecting wildlife and landscapes influencing agricultural wildlife and landscape management.

Before 2004, environmental cooperatives could receive the financial compensation of contracts directly. Farmers were then paid by cooperatives on the base of their wildlife and landscape management and results of the management. Since 2004, in order to comply with EU legislation, farmers receive compensation directly. But as a contracting partner in a collective contract, farmers pay a part of their subsidies to cooperatives. Farmers can have their money back depending on their management and results.

EU legislation appears in this case as a restrictive factor in AESs implementation possibilities. In comparison, the French strategy failed since it resulted into a low rate of adoption (lower than expected) and high public administrative costs. This is partly due to the complexity of procedures related to CTEs. Otherwise, too many measures whose efficiency is questionable were proposed to farmers In addition of the number of eligibility conditions led to schemes whose monitoring and enforcement were very difficult and expensive for the exchequer.

4 Discussion and concluding comments

According to the existing national or local situations, AESs address the reduction of negative externalities or focus on the positive externalities generated by agricultural production. Alternative explanations for the observed differences between the EU and other countries can be related primarily to differences in factor endowments and national contexts including stakeholders' preferences, cultural and institutional aspects, and secondarily to the pressure to liberalise international trade.

There is a convergence between programmes targeting the reduction of negative externalities. They are far from the implementation of the polluter-pays principle as far as they involve subsidisation of the farm sector by tax payers and are likely to result into trade distortions. The enforcement of schemes targeting pollution from livestock farming is very costly, thanks to their complexity. In addition penalties for cheating are generally low and do not induce operators to behave appropriately. Finally public authorities may be benevolent with trespassers.

Main differences result from the acknowledgment of multifunctionality as a concept to rationalise a public policy. The bias of European countries and Japan towards agri-environmental schemes favouring beneficial effects reflects society's needs. The appeal of rural areas for recreation and tourism is directly linked to the increase in income and urbanisation process. Higher incomes encourage the demand for environmental quality and countryside amenities, since they are accompanied by higher education increasing the awareness of pollution and its harmful effects. In a longer run, this may result into a shortage of supply of nature and boost the countryside resources.

Regarding Agri-environment implementation across EU, a study of 10 European regions leads to instructive results. Founder members have a less ambitious agri-environmental policy as England, where AESs mainly aim at maintaining existing practices. Some member states as France or Belgium implemented agro-environment in a very complex way, leading to a logical unsuccessful story. New member states seem to have reached a high success in agro-environmental policy implementation as in Finland or Czech Republic where adoption rate is very high.

Globally main key towards success of agri-environmental policy in Europe can be highlighted. First as expected to financial weight of agri-environment in farmers' life increase the probability of success. Second, the high implication of local actors including farmers seems also to be a key of success. Third the continuity between

implementation of new agro-environmental policy and previous policies has to be respected to increase chance of success.

These key factors seem to be integrated in the new rural development policy (Europa,2005). In this new rural development, AESs remain compulsory. And globally, the council highlights the bottom-up approach. Member states and local action groups will have more to say in attuning programmes to local needs. In our point of view, this point is of great importance because analysed as a key factor in described success stories. But this attuning to local needs must not raise a large AESs offer to farmers, as in France where complexity accompanied local and farm adaptation

For the coming years (2007-2013), the main focus of the reform of the CAP will be on rural development. The Council Regulation of 20 September 2005 (1698/2005) for rural development places rural development in a single financial and programming framework in order to improve the policy's coherence, transparency and visibility. Five types of programming and three financial management and control systems were currently applied. General objectives are in keeping with those of previous Council Regulation of 17 May 1999 (1257/1999). Indeed, rural development plans will be organised along three axes: competitiveness of agriculture and forestry, environment and countryside, quality of life and diversification of economic activity. Otherwise, it is added a Leader heading to implement the Leader approach in a broader context of overall plans for rural development. If the Leader approach is used effectively, local actors representing public-private partnerships should be actually involved in selecting and implementing the best development plans. This shift towards a bottom-up strategy should improve the efficiency of the overall policy. However, its success will depend as much on the level of resources available as on the detail and range of measures contained in the Regulation.

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