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How is EU Rural Development policy delivering for biodiversity?

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Executive Summary

This study reviews the potential effects on biodiversity of the 2007-2013 Rural Development Programmes across the European Union. The evaluation is based on an assessment of approved national and regional RDPs, carried out by BirdLife Partners in their respective countries.

The survey confirms that Rural Development policy has considerable potential to tackle the biodiversity challenge. The main strengths contributing to this are: (i) well-defined objectives, (ii) strategic approach to programming, (iii) a Common Monitoring and Evaluation Framework, (iv) approval process at EU level, (v) partnership principle, (vi) contractual basis and (vii) co-financing. Examples of actions that are likely to benefit biodiversity have been highlighted in almost all measures and RDPs. On the other hand, although major improvements have been made in comparison with the previous programming period, the potential of Rural Development to achieve its objectives for biodiversity is still severely undermined by poorly designed schemes and insufficient allocation of resources.

The following high level recommendations therefore arise from the study:

- Axis 2 measures should be revised to ensure that they are directly targeting biodiversity, and financial resources should be directed to these schemes. This is especially critical for the achievement of the Natura 2000 objectives.
- Axis 2 schemes (e.g. Less Favoured Area & agri-environment payments) need to have SMART objectives and clear value for the environment. Payment levels should be proportional to the real burden of commitments and to the expected outcome.
- Detailed and explicit environmental safeguards should be set for all investments in physical capital, in order to prevent depletion of water resources, increase in carbon emissions, increased soil sealing, and fragmentation or degradation of habitats.
- Rural development measures across all axes should be combined more effectively to create synergies for competitiveness, human capital, environmental and quality of life objectives.
- The development of measurable targets for biodiversity is far behind where it should be. Member States need to prioritise the design and monitoring of meaningful impact indicators and assessment of schemes' effectiveness. The results of monitoring should feed back into the design of schemes and into funding allocation.
- In the next programming period, the implementation of the strategic approach and partnership principle should be improved.

Despite the improvements needed, RD remains the best model for a future CAP, which should be based on the principle of rewarding farmers for the delivery of public goods; hardly any of the soundness principles underpinning RD can be found in the CAP Pillar 1. The outcome of the CAP "Health Check" has created an invaluable opportunity to develop RD in this direction. As annual revision of programmes is possible, substantial improvements can be introduced within the current programming period in all Member States, not only in those that will be implementing additional modulation. The European Commission, and national and regional authorities managing RDPs, should seize this chance to make significant and urgent improvements in the implementation of RD policy, not only to address the EU's pressing environmental problems, but also to provide a more solid base for the continuation of EU spending in this field.

1. Introduction

1.1 Background

The European Union is committed through the Convention on Biological Diversity and EU Sustainable Development Strategy (European Commission 2006), to achieving, by 2010, a significant reduction in the rate of biodiversity loss. The Rural Development policy, known as Pillar 2 of the Common Agricultural Policy (CAP), is the main financial source available for achieving this ambitious objective, and is supported by a dedicated fund, the European Agricultural Fund for Rural Development (EAFRD). The overall RD budget is set to be almost 37% of the total Common Agricultural Policy budget for the 2007-2013 period[1].

All measures deployed under Pillar 2 by Member States have to be linked to well-defined objectives and targets via Rural Development Programmes (RDPs), which must then be approved by the Commission. In contrast, Pillar 1 is still based on historic entitlements and bears no link between expenditure and expected results. It is hard to see how such an approach could deliver on any policy objective, environmental or otherwise (Swinnen 2009). Pillar 2, on the other hand, contains, at least on paper, the key elements necessary for a SMART[2] approach to the pursuance of policy objectives. It also includes measures, such as agri-environment schemes, that aim to reward farmers for the delivery of public goods.

BirdLife is fully committed to strengthening of the RD policy, but considers that a critical revision of the quality of spending and its impact is essential if the policy is to deliver its full potential. BirdLife is also convinced that the post 2013 CAP should be based on many of the elements currently included in Pillar 2:

- well-defined objectives
- strategic approach to programming
- Common Monitoring and Evaluation Framework
- approval process at EU level
- partnership principle
- contractual basis
- co-financing

Concrete opportunities for improvement of the RD spending are currently available. The recently concluded CAP "Health Check" will lead to a modest increase in funding for Pillar 2, through a progressive increase in compulsory modulation (transfer of funding from Pillar 1 to Pillar 2) from 5% to 10% of Pillar 1 base funding. This new Pillar 2 funding is designed to allow Member States to tackle five specific challenge areas (including innovation to address them): climate change, renewable energies, water management, biodiversity and dairy sector restructuring. It is estimated that the increase in modulation will raise an additional €3.24 billion for Pillar 2.

Despite the modest extent of the budget increase for Pillar 2, the implementation of the "Health Check" still represents an opportunity for improvement that cannot be missed. The 13 affected Member States are required to submit revised RDPs to the Commission by July 15th 2009. It should not be forgotten, however, that all Member States are allowed to submit to the Commission yearly modifications of their RDPs. This means that in all EU Member States[3] there are significant possibilities of improving the effectiveness of RD spending within the current programming period.

1.2 Objectives

The study provides an assessment of the 2007-2013 RDPs for their potential effects on biodiversity. The results are intended to support policy makers in Member States and the Commission responsible for the development and implementation of the EU Rural Development Policy, with the aim of tackling the biodiversity challenge more effectively. The paper includes a review of the implementation of Pillar 1 "national envelopes", given the possibility of addressing environmental objectives through this policy instrument.

It is expected that the findings of this study will be relevant at several critical points in the development the CAP and other EU policy areas, over the next few years:

- modification of Rural Development Programmes (RDPs), in particular (but not exclusively) for those Member States for which it is required as an effect of the Council Regulation (EC) No 74/2009;
- implementation of national envelopes under Article 68 of Council Regulation (EC) No 73/2009;
- definition of the post-2010 EU biodiversity targets and the shaping of EU actions on biodiversity;
- debate on the future of the CAP, which will be closely related to the EU budget review.

This project was established by the BirdLife partnership in order to inform these discussions, with a number of specific objectives:

1. Figure includes modulation and national (mandatory and additional) co-financing. The calculation is based on financial data extracted from RDPs and IEEP (2008a).
2. A policy is defined as SMART if its objectives and tools are Specific, Measurable, Attainable, Relevant and Time-bound.
3. Germany, France, Italy, Spain, Finland, Netherlands, Belgium, Luxembourg, Austria, Sweden, Denmark, Greece and Ireland.

- to assess to what extent biodiversity, within the context of the broader environment, is targeted by current RDPs;
- to assess to what extent current RDPs could have negative impacts on biodiversity, and highlight the need and scope for minimising them;
- to assess whether Axis 2 measures are adequately designed to meet clear environmental targets, and to what degree Axis 2 funds are diverted for other purposes (e.g. income support, productive investments) without clear environmental objectives;
- to assess whether the national envelopes have been used to address environmental needs, and to evaluate the potential offered by the new formulation of this tool.

1.3 Scope and Methodology

The report focuses on biodiversity conservation, and covers other environmental issues, such as resource protection, only insofar as they are clearly relevant for biodiversity. However, it contains some more general information and considerations on the overall quality of the RDPs and the programming process.

Throughout this paper, the term "biodiversity" refers to the variety of native species and to the habitats supporting them. Genetic resources related to cultivated plants and domestic animals are not within the scope of the study.

The basis of the study is an analysis of approved national and regional RDPs, carried out by BirdLife Partners in their respective countries. This analysis has been based on a standard questionnaire supported by consistent methodological guidelines developed by the RSPB and the BirdLife EU Secretariat. While the findings are therefore based on the expert judgement of contributors, guidance has been given and screening of replies has been undertaken in order to reduce subjectivity and ensure an even treatment of programmes across the EU. The questionnaire responses have prompted further specific analysis into RDPs and other relevant sources.

Submissions have been received from BirdLife Partners in 18 Member States[4]. The 9 remaining Member States have not been covered by the questionnaire, although in some cases relevant information has been extracted by the RSPB from their RDPs or other relevant sources.

While the choice of Member States has been mainly determined by the capacity and commitment of national BirdLife Partners, an attempt has been made to guarantee a representative spread covering different geographical regions and socio-economic contexts.

1.4 Structure of the report

Section 2 focuses on the analysis of RD public expenditure and the extent to which it is considered positive or negative for biodiversity.

Section 3 concerns the Rural Development programming and implementation process. The application of the strategic approach and the involvement of BirdLife Partners in the development and implementation of the RDPs are discussed. An assessment is included of the current implementation of the Common Monitoring and Evaluation Framework and the key challenges involved in making it an effective tool to ensure that the investment for biodiversity meets its objectives.

Section 4 contains a description of the general comments applying to several measures, and a detailed assessment of the impacts of the RD measures on biodiversity, grouped according to the categories as below (see annex I for a full list of RD measures):

- Investment in human capital (Measures 111, 114, 115, 331, 341);
- Investment in physical capital (Measures 112, 121, 123, 125, 311, 312, 313, 322);
- Forest improvement, infrastructure, restoration and prevention actions (Measures 122, 125, 226);
- Food quality (Measures 132, 133);
- Less Favoured Area payments (Measures 211, 212);
- Natura 2000 and Water Framework Directive payments (Measures 213, 224);
- Agri-environment payments (Measure 214);
- Non-productive investments in farmland (Measures 216);
- Forest-environment payments and non-productive investments in forest (Measure 225, 227);
- Afforestation (Measures 221, 222, 223);
- Upgrading of rural heritage (Measure 323);
- Leader (Axis 4).

Case-study examples of positive and negative usage of RD public funding, from a biodiversity perspective, are described. Specific recommendations are provided on how to improve the implementation of each measure.

4. Austria, Bulgaria, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Netherlands, Poland, Portugal, Slovenia, Slovakia, Spain, Sweden, United Kingdom.

Section 5 provides a short overview of how the national envelopes have been implemented until now, and of the opportunities for the environment arising from the recent changes to this policy tool.

Section 6 draws together the findings and conclusions from the review and sets out the main policy recommendations.

2. Mapping Rural Development expenditure and its value for biodiversity

Committed RD funding for the 2007-13 programming period of the CAP is €161bn[5]. Axis 2 (Improving the environment and countryside) is allocated €74.5bn - 46% of the total funding for RD - and is the primary axis through which targeted funding for biodiversity is allocated.

Within Axis 2, a range of measures is available. "Agri-environment payments", the only mandatory measure, account for approximately 21% of total RD spending. The geographic pattern of Axis 2 expenditure shows wide differences across the EU (Figure 1). Axis 2 is given funding priority in Ireland, Finland, UK, Austria, Sweden and Denmark, which all devote over 60% of RD public expenditure to Axis 2 measures. At the other extreme Belgium, Latvia, Malta, Bulgaria and Romania are below 30%.

Very low Axis 2 allocations can be found also at the regional level. For instance, in Aquitaine (France) Axis 1 spending is almost three times bigger than Axis 2. A number of regions in Spain, Italy and Germany[6], together with Flanders, have allocated to Axis 2 less than 25% of the RD total public expenditure. This is especially critical in biodiversity hotspots such as the Canary Islands and the French overseas departments[7], where less than 20% of RD public spending is allocated to Axis 2, while most of the available resources are spent on investments posing considerable environmental risks. Although high Axis 2 expenditure will not necessarily imply a strong environmental focus, RDPs with a low Axis 2 allocation will hardly be able to address environmental challenges.

An apparently high focus on Axis 2 may conceal a low availability of funding per hectare. For example, expenditure on agri-environment is lower than 100 €/ha in Scotland, despite the

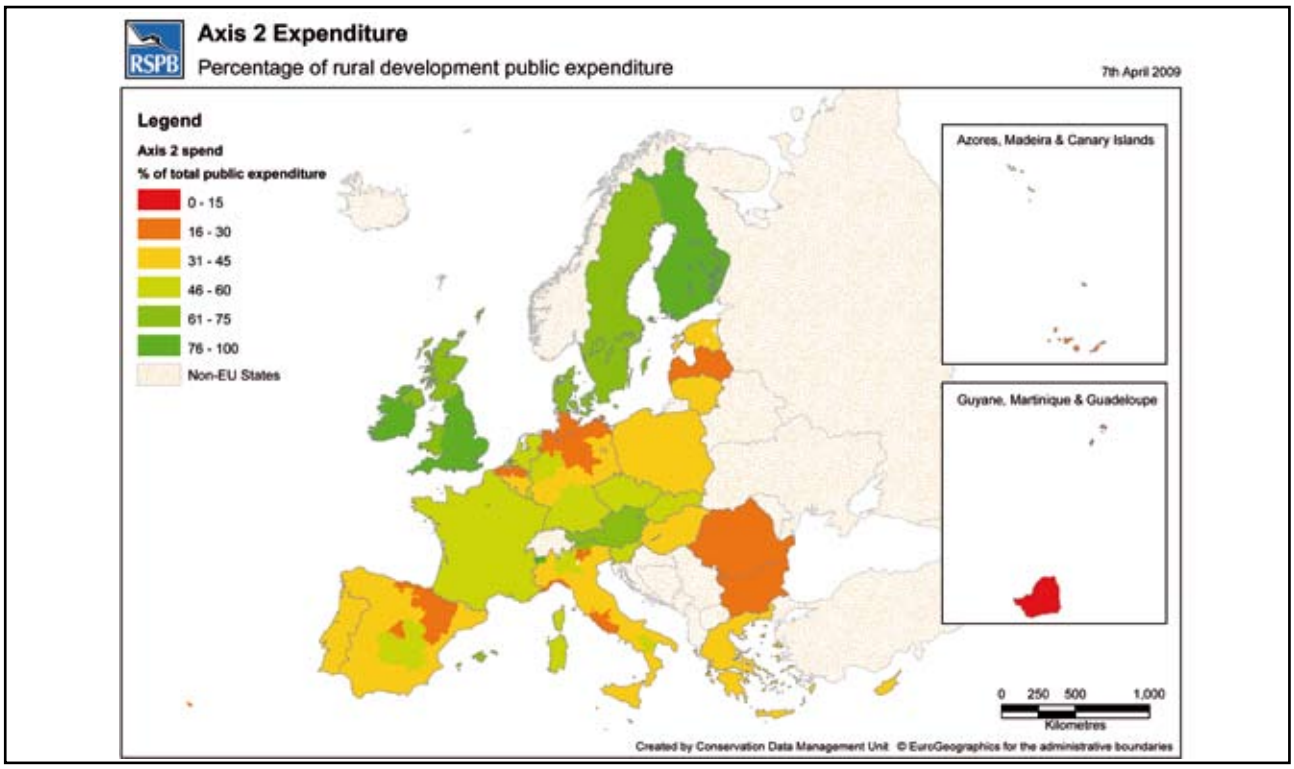


Figure 1. *Public expenditure on Axis 2 expressed as percentage of the total public expenditure on RD. Measure 412 (Environment through Leader approach) has been included under Axis 2. Figures take into account EAFRD, mandatory and additional national co-financing. Map based on RSPB own calculations from RDPs' financial tables.*

5. Figure includes modulation funds and national (mandatory and additional) co-financing. Increased modulation funds following the CAP 'Health Check' are not included.
6. Spain (Aragón, Cantabria, La Rioja, Madrid, Navarra, País Vasco), Italy (Trento, Liguria, Lazio), Germany (Hamburg, Mecklenburg-Western Pomerania, Lower Saxony-Bremen, Sachsen-Anhalt, Schleswig-Holstein).
7. Guadeloupe, Guyane, Martinique, Réunion (not shown in the map).

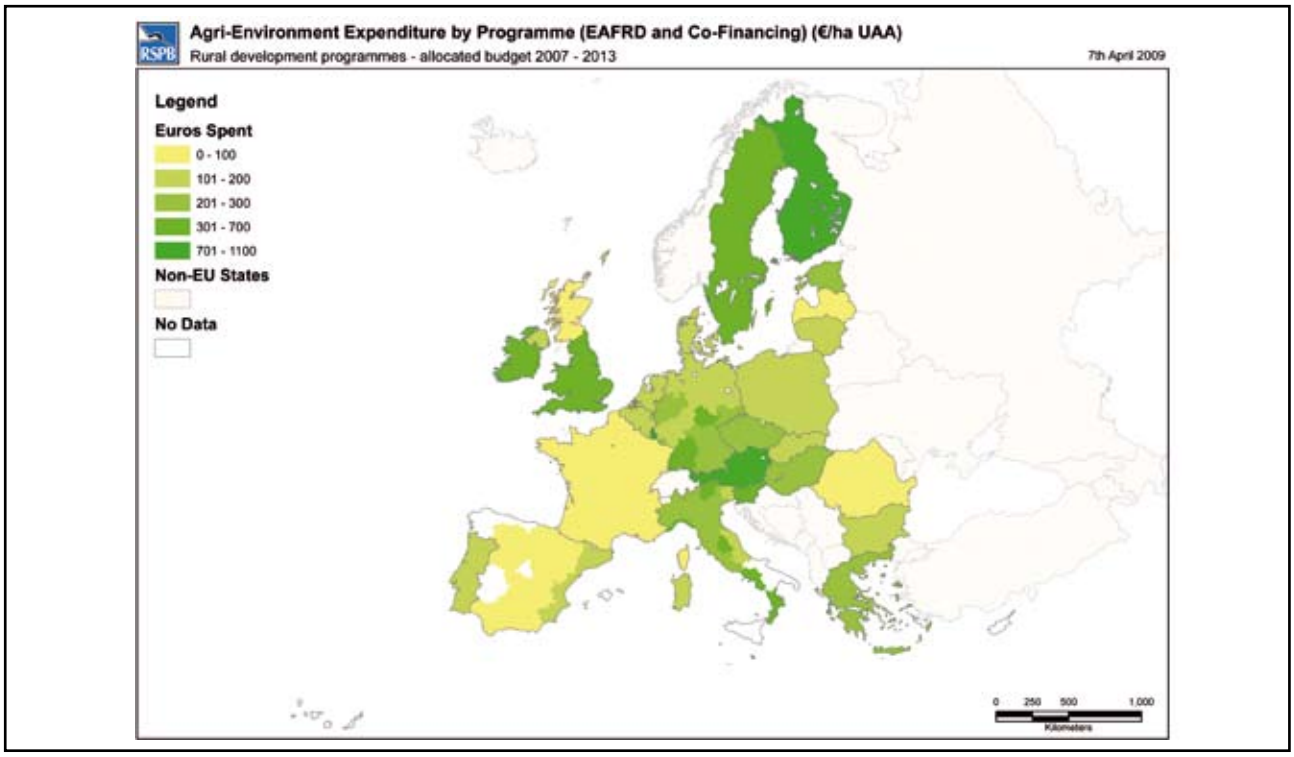


Figure 2. *Availability of financial resources for agri-environment payments, expressed in €/ha of utilised agricultural area (UAA). Map produced by the RSPB, based on IEEP's own calculation from RDP financial data.*

percentage of Axis 2 allocation being relatively high (Figure 2). Extremely low availability of resources for agri-environment is found also in Latvia, Romania, France and most of Spain.

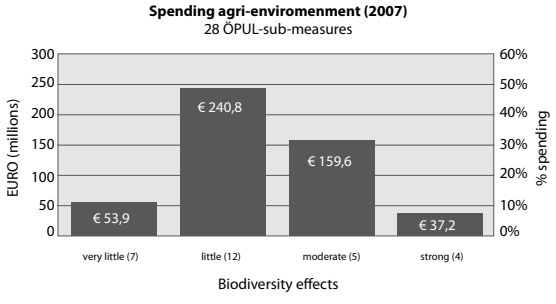
Gathering quantitative information on RD spending with positive or negative impacts on biodiversity is nearly impossible, as each measure usually includes several different and even contrasting sub-measures, without clear ring-fencing of financial resources and specific output indicators for each sub-measure[8]. This makes it much more difficult to assess schemes' effectiveness.

An estimate of the percentage of the budget that is likely to benefit biodiversity has been possible in very few cases. For example, BirdLife estimates that in Austria, although 72% of RD public expenditure is allocated to Axis 2, only 14% is expected to have directly positive effects on biodiversity. A further 16% of the RD budget is expected to benefit the broader environment, therefore having indirectly positive effects for biodiversity. Conversely, almost 23% of public expenditure is likely to harm biodiversity[9].

Well-designed schemes for species and habitat conservation receive only a very small proportion of agri-environment funding.

Austria

If spending on AE is considered in relation to its value for biodiversity, it emerges that, in 2007, less than 8% of total budget has been spent on sub-measures with "strong" effects (see chart below).



8. Several examples can be found under measures 121, 125 and 214.
9. The measure contributing most are 213, 214, 224; 225 and 323 contribute at a limited extent.

In addition, while the input reduction scheme has been implemented on an area larger than the target, the implementation of the biodiversity scheme has not reached the targeted area (see table below).

Scheme	*Area target for 2007 (ha)*	*Actual implementation in 2007 (ha)*
Input reduction	810,000	1,320,000
Biodiversity	95,000	67,000

Slovenia

Four agri-environment schemes for nature conservation are included in the RDP:

- HAB - special grasslands habitats conservation scheme;
- MET - conservation of butterflies' habitats scheme;
- STE - conservation of late mowed grasslands;
- VTR - conservation of Natura 2000 wet grassland habitats for endangered birds.

Appropriate and detailed commitments are linked to these schemes: late mowing, type of mowing, exclusion of herbicides and mineral fertilisers, conservation of landscape features. However, these schemes are the only RD instrument targeting nature conservation, and their estimated budget amounts to only 0.05% of the RDP's total public expenditure.

Finland

The foreseen uptake of special schemes targeting nature conservation is only 10'000 ha of land, compared to the 2.26 million ha under undemanding "resource protection" schemes.

In summary, headline figures such as the amount or intensity of Axis 2 or agri-environment spending are not a guide to the actual level of targeted spending on biodiversity. Where informed estimates have been possible, the picture revealed is one of very low levels. Moreover, uptake of schemes targeting biodiversity is falling well below target, and therefore even less spending is channelled to biodiversity than planned.

3. The Rural Development programming process

Several "facilitating factors" are required to ensure that the strategic objectives of the Rural Development policy are effectively implemented through well-designed and managed measures applied within individual RDPs. These include:

- a strategic approach, whereby the policy objectives cascade into national strategic plans and then into RDPs and the development of individual measures;
- partnership principle – effective consultation and continuing co-operation with all stakeholders who have an interest in the execution of the policy;
- "SMART" objectives which are linked to each measure:
- an effective monitoring and evaluation framework, with feedback mechanisms to ensure continuous improvement in the design and delivery of the strategy.

The replies to our questionnaires indicate that, whilst the processes underpinning the current set of plans represent a significant improvement on past practice, much still needs to be done in this programming period and in the design of the next, to create an environment in which all parties can be confident that RDPs will deliver the biodiversity objectives of the strategy.

3.1 Strategic Approach

EC Regulation 1698/2005 sets out the strategic approach to be taken to the design and implementation of the Rural Development policy, through EU strategic guidelines and national strategy plans. Such an approach requires that the initial strategic analysis of the situation be used to set targets and, consequently, to design the appropriate mix of tools and allocate the necessary budget. Our impression however, is that in most Member States the national strategy has not served as a basis for the drafting of the RDPs. Instead, existing schemes have often simply been rolled forward, sometimes with amendment or the addition of new elements under competing external pressures. The resulting lack of synergies within and between RDPs is an issue that is explored in more detail in section 4.1.

In most cases, the two processes have been carried on in parallel, with the strategy more often adapted to the draft programme, than vice versa. In some regions of Spain and Italy, for example, programmes were essentially fully drafted by the time the national strategy was adopted (or even formulated).

This point is further evidenced by target figures for impact indicators which do not appear to be supported by appropriately funded action plans. In Austria, for example, while the Farmland Bird Index has been decreasing since 1998, the RDP aims to stabilise or increase it without any increase in the budget targeting biodiversity.

Whilst it is unrealistic to expect fundamental changes to the RDPs for the 2007-13 programming period, this issue should be addressed as preparation for the next period begins.

3.2 Partnership principle[10]

Stakeholder consultation is a key feature of RD policy, and if properly carried out, has great potential to improve the targeting of public spending. Involving farmers and other professionals in scheme design may increase the likelihood of uptake and of actual success as agronomic, business and logistic concerns can be tackled at the beginning. Involvement of environmental NGOs, environmental authorities and other environmental expertise can provide a solid scientific base to scheme design and allow for the incorporation of good practice from pilot projects (e.g. LIFE projects) or existing protected areas. Constructive and transparent consultation also helps in mitigating conflicts between stakeholders, increasing understanding of the policy and creating a shared agenda for the policy across a wide base of interested parties.

The EU has recognised the importance of consultation by incorporating specific requirements (including the need to involve environmental organisations) in the RD regulation. Good standards of consultation can be judged by referring to the Commission's own guidelines[11].

Our Study shows that in almost all Member States some improvements have been seen over the previous programming period. In many countries this has been the first time that environmental NGOs have been given any voice in the programming of CAP spending, which in itself can be considered an important step forward. Several cases have also been signalled[12] where negotiation with the Commission has led Member States to improve their consultation process. The overall improvement in the level of consultation, especially taking account of the lack of experience in some Member States, is encouraging.

However, it is clear that if RD is to achieve its full potential, much better stakeholder consultation must still be achieved in most Member States. Several trends have been identified:

- Insufficient engagement with environmental experts. In Finland, all decisions related to Axis 1 and Axis 3 have been made by the Ministry of Agriculture and Forestry, without even involving the Ministry of Environment. In other countries[13], authorities have carried out extensive consultations with farming unions, but have failed to engage environmental NGOs, in line with their EU obligations. When environmental NGOs have been involved, they have been often heavily outnumbered by farmers' representatives[14];
- Consultations have often been very short, making effective participation very difficult, or the timing has been inappropriate, being either too early, leading to insufficient detail being included, or too late to allow for realistic opportunity to influence the outcome;
- In some cases, extensive consultation with environmental experts has been carried out and detailed schemes have been proposed by stakeholders, but this input has been largely ignored without feedback as to the reasons[15].

One solution could be the elaboration of mandatory and detailed rules, covering issues such as the timing of the consultation in relation to strategy formulation, stages at which drafts should be released, minimum response times and transparency of reasons behind decisions to disregard stakeholders' proposals.

A further positive step in the consultation process would be to give more weight to scientific evidence, rather than to opinions and interests of the various stakeholders (Haaranen et al. 2008).

3.3 Common Monitoring and Evaluation Framework

Council Regulation (EC) No 1698/2005 establishes a Common Monitoring and Evaluation Framework[16], on the basis of which Member States have to fulfil various obligations:

- quantify the baseline situation;
- determine targets for three different levels of indicators: output, result and impact indicators;

10. Council Regulation (EC) No 1698/2005 – see Article 6.
11. EU Communication 'Towards a Reinforced Culture of Consultation and Dialogue- General Principles and Minimum Standards for Consultation of Interested parties by the Commission', COM(2002)704.
12. E.g. Austria, Finland, Romania, Slovakia.
13. E.g. Ireland.
14. E.g. Austria, UK (Scotland).
15. E.g. Latvia, Slovakia.
16. The CMEF is defined in the Commission Regulation (EC) No 1974/2006.

- update the indicators (output and result annually and impact indicators in mid-term and ex-post evaluation).

The following mandatory baseline and impact indicators are related to biodiversity:

- population of farmland birds;
- High Nature Value farmland and forestry;
- tree species composition.

Best practice examples are beginning to emerge in some Member States. An example is the use in almost all Spanish programmes of explicit indicators for water savings related to measure 125 (Improving and developing infrastructure) and breakdowns for implementation of measures on Natura 2000. Monitoring of farmland birds and its proper use as an indicator is in place in Austria, England, Scotland, Finland, Bulgaria and Latvia.

Notwithstanding this progress, responses from BirdLife Partners suggest that urgent progress is required in this area across the EU generally. The impact indicators are required to be analysed in the mid-term evaluation of the RDPs, which must be submitted to the Commission by 31st December 2010. Our survey confirms that monitoring schemes for baseline and impact indicators still need to be defined in the majority of Member States, which means that it is very unlikely that meaningful trend analysis will be submitted next year.

In most countries the primary measures used to assess the success of schemes relate to scheme uptake. While uptake is a relevant element to consider when assessing a scheme's attractiveness, impact measures are required to assess the attainment of the scheme's objectives and its contribution to the attainment of overarching strategic objectives. Some highly targeted schemes, for example measures for the conservation of rare species, can have a meaningful and measurable impact even if implemented by just a handful of farmers[17]. At the other extreme, a poorly designed scheme can have no impact even if taken up by 100% of farmers. Only a sufficient coverage of well-designed schemes would have measurable effects, e.g. on the FBI. Indeed, our study has found counterproductive schemes that actually result in environmental harm, where the higher the uptake, the worse the environmental outcome (see section 4). One of the main findings of our analysis is a strong bias in funding toward undemanding schemes. This means that countries such as Finland and Ireland, with an apparently very high investment in Axis 2, in reality do insufficient environmental work through their RDPs (Kuussaari et al. 2007). Uptake measures will suggest that these schemes are successful, whereas the opposite is the case.

More progress is needed on the establishment of Farmland Bird Indices in most countries. Monitoring of farmland birds, and its proper use as an indicator, has been found to be satisfactory in Austria, Bulgaria, Finland, Slovenia and UK (England and Scotland). Some progress is being recorded in Ireland, Wales, France, Latvia and Cyprus, but none of these countries yet has a proper indicator, backed by effective monitoring, set up. In Slovakia the indicator is included in the RDP but adequate funding is not being invested in monitoring work. In Italy the situation is inconsistent with only a handful of regions using the FBI and two monitoring particular species. Farmland bird monitoring has still not been set up in Greece.

Inconsistent implementation of farmland bird monitoring at sub-national level

Spain

The Farmland Bird Index (adapted for Spain by SEO/BirdLife) is only defined and monitored at the national level, but its use varies hugely among regions. Many regions have included their threatened species, even if they have nothing to do with farmland. Others have used only species that have undergone an increasing trend (ex. Lesser kestrel in Aragon). Other regions (e.g. Galicia) have simply said that there is no available data and done nothing. Only 6 regions[18] (out of 17) seem to have activated a proper monitoring program.

More progress is needed on monitoring of High Nature Value farming and forestry. Most effort is currently directed to mapping exercises, rather than to monitoring the quality of habitats. Work on HNV indicators (Baseline indicator No 18 and Impact indicator No 5) has started in a few Member States such as Finland, Greece and UK (Scotland), but there is no fully-fledged system up and running. Despite the Commission guidance document[19], very few Member States are attempting to collect data and quantify the trends in HNV farmland/forestry quality.

Effective feedback processes are required to ensure action is taken in response to observed trends. Concern has been expressed that hardly any use is being made of impact indicators to evaluate the effectiveness of individual schemes for biodiversity conservation (or other environmental delivery) in order to drive more effective targeting of measures towards biodiversity. A case in point is Finland where the funding for monitoring has now been cut back.

17. An example is the scheme for the Great bustard (Otis tarda) in Austria. The population of this species has increased proportionally to the area under contract.
18. Andalucía, Castilla-La Mancha.
19. http://ec.europa.eu/agriculture/analysis/external/evaluation/guidance.pdf

4. Analysis of Rural Development measures

4.1 Overarching comments

Two generic cross-cutting issues have been identified in our review of Rural Development measures. The first is the lack of synergies within and between RDPs that allow different components to work together in the interests of biodiversity objectives; the second is the necessity for a much more rigorous set of environmental safeguards to ensure that well intentioned investments that support other RD policy objectives do not simultaneously run counter to biodiversity objectives.

4.1.1 Synergies and conflicts

Few attempts to build synergies between the RD axes have been recorded. Most Member States have tackled each axis separately, considering only its specific objectives and ignoring the impact of measures introduced under the other axes. This problem has been compounded where competence for the different axes has been split between separate administrative services, with poor communication between them. As a result the widespread approach is one in which Axis 1 focuses solely on competitiveness without any environmental objectives, leaving the environment to be taken care of by Axis 2. The result is an inherently contradictory policy whereby, for example, modernisation measures fund the destruction of the same HNV habitats that some Axis 2 measures seek to protect[20].

Inconsistency is not only found between schemes within particular RDPs, but also between adjoining RDPs that share common ecological, geo-climatic or socio-economic conditions. Discrepancies are found across regional or even national borders in targeting of environmental issues: in the levels of funding and premia for the same measures, in conditions attached to payments etc.

4.1.2 Environmental safeguards

Implementation of environmental safeguards on potentially harmful investments across all axes remains very weak in the majority of Member States. Any reference to national and regional Environmental Impact Assessment legislation and national forestry plans should therefore prompt a thorough evaluation of such legislation and of its concrete enforcement. Information to do this is often not available to Commission officials who are in charge of the approval process of the RDPs, so safeguards that sound solid on paper may be meaningless in reality.

Likewise, data on progress in the adoption of Natura 2000 management plans are only partially available across Europe (European Commission 2008b), and gathering information on their quality is virtually impossible. As a result, it will be extremely difficult for Commission officials involved in the approval of RDPs to assess the effectiveness of environmental safeguards which refer only to Natura 2000 management plans. See also section 4.4 for a discussion on the similar issues associated with forest management plans.

For the next programming period, these problems need to be addressed by developing a detailed list of EU-wide environmental safeguards attached to RD investments, to be implemented by Member States in addition to national EIA legislation and Natura 2000 management plans.

4.2 Investment in human capital (Measures 111, 114, 115, 331, 341).

Advisory services, training and information activities comprise the RD measures targeting human capital. These instruments have clear potential to increase the awareness of farmers and other rural actors of environmental issues, as well as to support the uptake of agri-environment schemes and other Axis 2 measures and improve the delivery of their objectives. In some cases[21], training or advisory measures have been specifically designed for this purpose.

Training activities jointly implemented with Axis 2 measures

Greece

111 - Vocational training, information actions [...]

Training will be provided only to beneficiaries of agri-environment, afforestation and LFA measures, with a clear focus on environmental issues. Biodiversity may be positively affected through increased awareness of the beneficiaries and more effective implementation of the measures.

In some RDPs[22] there is provision to cover environmental issues and support environmentally-friendly production systems (e.g. organic farming) through training, advisory services or information actions, and there may be opportunities to involve

20. E.g. Latvia, Portugal.
21. E.g. Greece, Hungary, Ireland.
22. E.g. Austria, Bulgaria, Finland, France (mainland), Poland, Romania, Sweden.

environmental expertise in the implementation of training activities. Nevertheless, the vagueness of such provision and the absence of clear ring-fencing of funding for environmental activities represent weaknesses in the design of these measures. In other RDPs[23] the absence of any specific reference to the environment is a concern, which needs to be addressed.

Appropriate training should target not only land managers, but also staff in the advisory service for agriculture and forestry and in the paying authority. In order to achieve this it is essential that there is a sufficient body of environmentally qualified and experienced trainers and RDPs should be explicit about plans to put this resource in place.

The following key points need to be addressed:

- Training, advisory service and information measures should explicitly target biodiversity and other environmental issues, beyond the mandatory requirements of cross compliance, in the list of actions supported;
- Appropriate funding should be clearly ring-fenced in this respect;
- Training and advisory services should be jointly implemented with agri-environment and other Axis 2 measures, to build awareness and understanding of the schemes;
- Sufficient support should be ensured to maintain a well-staffed and trained advisory network, as well as to adequately train staff in the paying authority.

4.3 Investment in physical capital (Measures 112, 121, 123, 125, 311, 312, 313, 322)

Investment in physical capital in rural areas and in the agri-food industry has potential to impact biodiversity through direct changes to valuable habitats; these changes can in principle be positive or negative in their impacts. An assorted range of measures is available for these purposes.

Experience shows that these measures can be implemented as win-win tools to benefit biodiversity and business at the same time.

Productive investments used to incentivise organic farming

Italy (Lombardia)

121 - Farm modernisation

It is explicitly stated that investment in modernisation of livestock farms shall not increase the productivity of supported farms, with derogation for organic farms. This is a valid environmental safeguard and a way to incentivise the organic sector.

Under measure 121 (Farm modernisation), several RDPs[24] support investments to reduce the environmental impact of farm holdings; examples are slurry treatment facilities, composting and improving energy efficiency.

Reducing the environmental impact of farming activities

France (mainland)

121 - Farm modernisation

A specific sub-measure[25] provides support to farmers for investments aiming to reduce pollution from pesticides and fertilisers, control soil erosion, reduce energy and water demand and protect biodiversity.

The more usual situation is that public investment in physical capital tends to have negative impacts on biodiversity and the broader environment. For example, setting up young farmers (Measure 112), is generally implemented not as a measure aiming to improve the human capital, but as a modernisation tool without any environmental safeguard and, in most cases, without mandatory prescriptions for environmental training[26]. Best practice examples include Romania, where setting up of young farmers gives priority to beneficiaries entering agri-environment schemes, and Ireland, where the scheme includes training on environmental issues.

4.3.1 Environmental safeguards

Our survey shows that the large majority of RDPs include high risk investments where public money is spent without any real guarantee that it is not undermining EU environmental

23. For example Spain (Cataluña, Extremadura etc).
24. Some examples: Bulgaria, Cyprus, Finland, France (mainland), Italy (Emilia Romagna etc).
25. "Plan végétal pour l'environnement"
26. This problem is found in several RDPs: France (e.g. mainland), Greece, Italy (e.g. Lombardia, Puglia), Poland, Spain (e.g. Andalucía, Extremadura).

objectives and EU legislation. The explicit inclusion of detailed environmental safeguards, prioritisation of environmentally benign investments and exclusion of the most dangerous investments can help ensure that funds will have positive or at least neutral environmental outcomes. Generic safeguards alone, such as excluding from the scope of these measures the Natura 2000 network, or referring to management plans of Natura 2000 sites and national EIA legislation, are not a sufficient mechanism to avoid damage to biodiversity (see section 4.1).

Potentially harmful investments lack adequate safeguards

Spain (Extremadura)[27]

125 - Improving and developing infrastructure [...]

Over €179 million (15% of the programme's total public expenditure) will be spent on improving agriculture and forestry infrastructure. This measure includes land consolidation and expansion of roads. Such operations are very likely to damage habitats and increase disturbance to endangered wildlife. Although safeguards for Natura 2000 sites are set, these are not sufficient to cover all the potential environmental impacts, both outside and inside Natura 2000.

Austria

321 - Basic services for the economy and rural population

Construction of roads in agricultural land is supported (140 km targeted). No relevant safeguards (e.g. for areas with particular biodiversity value) are included.

313 - Encouragement of tourism activities

Only a weak environmental safeguard has been included: for operations 'relevant to nature conservation" (which probably means only those with direct conservation aims) the nature conservation departments must be consulted.

Poland and Romania

125 - Improving and developing infrastructure [...]

Support is provided for the restoration and expansion of drainage, land re-parcelling, roads, re-profiling of water courses[28] etc, without sufficient environmental safeguards.

Greece

121 - Farm modernisation

125 - Improving and developing infrastructure [...]

Environmental safeguards for investment in infrastructures and modernisation are extremely generic.

4.3.2 Land consolidation, drainage and irrigation projects

Land consolidation, drainage and irrigation projects are among the most problematic investments. These can encourage the replacement of HNV farming systems (whose conservation is an objective of Axis 2) with intensive agriculture systems of low biodiversity value. Even though Natura 2000 sites are usually excluded from these projects, EU priority habitats left outside Natura 2000 designation may be negatively affected.

Land consolidation destroying mosaic habitats

Finland

121 - Farm modernisation

Finnish farmland is home to relatively rich wildlife thanks to a mosaic-type landscape and a dense network of ditches. Consolidation of land parcels into larger units with removal of ditches is still supported. While forest patches and scrub areas are protected by cross-compliance (though derogations are possible), no provisions for retention of some ditches or replacement of them by other alternative habitats are made.

Support for drainage activities damages wildlife habitats

Latvia

125 - Improving and developing infrastructure [...]

Historically, almost 60% of all farmland in Latvia has been affected by drainage. A large proportion of these systems has been abandoned and left without maintenance for at least 10-20 years, during which a substantial re-naturalisation of river channels, bank vegetation and stream biotopes has taken place. Construction, reconstruction and upgrading of drainage systems, especially in wet grassland areas, are highly damaging for biodiversity. Natura 2000 sites are excluded from drainage operations, and projects outside Natura 2000 will have

27. Similar problems are found in almost all the RDPs of Spain.
28. Also in France and Greece the construction of roads and dams is supported under this measure.

to comply with national EIA legislation. However, these conditions are not a sufficient guarantee for biodiversity conservation, and this measure will result in landscape simplification and significant loss of biodiversity.

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Large scale irrigation expansion will destroy wildlife habitats and increase water over-abstraction

Portugal

Axis 1, various measures

Out of over €790 million invested in irrigation, only €80 million is ring-fenced to improve the sustainability of existing irrigation systems, and no resources are allocated to the implementation of the Water Framework Directive. Most of these funds will be used for the expansion of the irrigated surface, thus increasing water demand. For example, the Alqueva dam development (€534 million of public support) will create 200,000 ha of new irrigated area in the Alentejo region, destroying EU priority steppe habitats and heavily transforming HNV farming systems.

Coverage of irrigation systems in the European Union is already high, and problems arising from salinisation and depletion of watercourses are well known (Martínez-Santos et al. 2008; Zalidis et al. 2002). Further expansion of irrigation can also have negative impacts on farmland habitats. Therefore irrigation projects should strictly target the land already under irrigation, and aim to achieve substantial water savings.

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Real water savings in modernisation of irrigation systems

Spain (National Framework - applicable to all regions[29])
Italy: Lombardia

121 - Farm modernisation

125 - Improving and developing infrastructure [...]

Water saving is promoted through the modernisation of irrigation systems. In order to achieve real water savings, this action is restricted to farm parcels which are currently irrigated. The Aragón RDP goes beyond the National Framework, including actual water saving indicators[30], robust EIA and monitoring provisions, and stipulating that investments must contribute to the conservation objectives of Natura 2000 sites (rather than "not affecting negatively").

4.3.3 Projects on rural buildings

A range of measures under both Axes 1 and 3 support restructuring or construction on rural buildings. Several bird and bat species, many of which are protected under the Birds & Habitats Directives, nest or roost in rural buildings. The conservation of some features of traditional buildings, such as roof spaces, ledges and wall cavities, is important for the survival of these species. However, virtually all RDPs completely ignore this problem.

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No action to ensure that design of new or restored agricultural buildings is wildlife-friendly

Spain (Extremadura)

322 - Village renewal and development

Traditional buildings in rural areas are important nesting sites for a number of endangered or declining species, such as the Common kestrel (*Falco tinnunculus*), the Lesser kestrel (*Falco naumanni*), the White stork (*Ciconia ciconia*), the Barn owl (*Tyto alba*), the Little owl (*Athene noctua*), the Eurasian roller (*Coracias garrulus*), the Barn swallow (*Hirundo rustica*), the Red-billed chough (*Pyrrhocorax pyrrhocorax*), the Tree sparrow (*Passer montanus*) etc. Despite this, no explicit safeguard has been introduced to avoid the loss of nesting sites.

4.3.4 Soil sealing

Also problematic are investments that lead to soil sealing through expansion of buildings and infrastructure. Soil sealing negatively affects water management (e.g. leading to higher flood risks), carbon capture and storage and biodiversity, through habitat loss and fragmentation. Regrettably, soil sealing is being supported by RDPs even in regions where this environmental problem has reached critical levels, as for example along the Mediterranean coasts[31], Belgium, the Netherlands, Denmark, western Germany and England.

29. Cataluña contravenes the national framework by allowing investment in new irrigation expansion (the same measure also supports land consolidation and other environmentally harmful investments). Navarra does not pick up in its RDP the water saving objective. Andalucía has very unclear objectives and conditions. Castilla y León has included measures that might finance irrigation expansion, without a clear reference to the rule on limitation to currently irrigated land.
30. In most Spanish regions there are no solid mechanisms to ensure that water saved is returned to rivers and aquifers, so it is very likely that water saving investments will promote more intensive water use in agriculture or in other sectors, without a net environmental improvement.
31. Examples in Italy, Spain, France.

Further soil sealing is supported in regions that are already heavily sealed

Italy (Lombardia)

Various measures: 121, 125, 311 etc.

In this region, 10.6% of the area is sealed (i.e. covered by buildings, roads etc.), more than double the EU25 average (about 4%). Nevertheless, further soil sealing is supported by the RDP.

Our analysis has highlighted cases in which the maximum ceilings for public co-financing are higher for the most intensive farming systems (e.g. greenhouses), therefore representing an incentive for further intensification, rather than incentivising environmentally-friendly and HNV farming systems.

Greenhouse farms: more public money to the most intensive farming systems

Spain (Andalucía)

121 - Farm modernisation

While the general maximum ceiling is set at €260,000 per project, a special provision for intensive farms (namely greenhouse farms) makes available public co-financing up to €600,000. This is critical, as for example, a significant proportion of the province of Almeria has already been covered by greenhouses, with widespread habitat destruction, water pollution and depletion.

Further expansion of greenhouses is potentially supported in other areas that are already heavily affected by this land use, such as Italy (Puglia, Sicilia etc.) and the Netherlands.

4.3.5 Renewable energy projects

Most RDPs use a range of measures[32] to support the renewable energy sector. In the wrong place and at the wrong scale, these can be damaging even for climate change mitigation[33].

Renewable energies widely promoted, but environmental safeguards do not guarantee emission savings

Italy (various RDPs)

Various measures: 121, 311 etc.

In Italy, all RDPs include support for investments for the production of renewable energies, including bioenergy. Support is provided via a wide array of measures under all axes. However, no real guarantees exist that these developments will lead to greenhouse gas emissions reductions, let alone avoid damage to biodiversity. Only 9[34] out of 21 RDPs prescribe, although in some cases quite generically, that biomass must be of local provenance. Only nine RDPs[35] contain some reference, again quite generic in most cases, to the need to assess the environmental impact or carbon balance of bioenergy investments.

France (Réunion)

121 - Farm modernisation

Support to the biofuel sector based on sugarcane is provided. No reference to whether emission savings of individual projects will be assessed.

Sweden

121 - Farm modernisation

Investment in permanent energy crops also replacing set-aside land (which in the Swedish context would invariably lead to biodiversity loss). Quite generic environmental safeguards are attached: projects will be assessed by County board. No reference to whether emission savings of individual projects will be assessed.

Austria, Finland

Various measures under Axes 1 and 3

Investments in the bioenergy sectors may have negative impacts on farmland (e.g. wide scale plantations of bioenergy crops), forest biodiversity and soil (intensive removal of wood material and stumps), while emission savings are often unspecified. There is no reference to whether emission savings of individual projects will be assessed.

32. Measures 121, 122, 123, 124, 311, 312 and 321
33. Problems in this respect may arise in England.
34. Emilia Romagna, Sicilia, Abruzzo, Basilicata, Veneto, Friuli Venezia Giulia, Lazio, Bolzano, Calabria.
35. Emilia Romagna, Veneto, Puglia, Sardegna, Calabria, Bolzano, Lazio, Trento, Basilicata.

4.4 Forest improvement, infrastructure, restoration and prevention actions (122, 125, 226)

Although formally belonging to different axes, these three measures generally appear to have been designed for the purpose of increasing, securing or restoring the economic productivity of forestry, with little consideration for biodiversity and other environmental issues. In many cases[36] such measures are likely to have severe negative impacts on biodiversity. Some of the more common problems identified are:

- Opening new forest roads increases forest fragmentation, directly disturbs wildlife, destroys habitats and accrues human disturbance by easier accessibility to forest areas. The few remaining pristine forests of Europe are often situated on inaccessible places beyond the extent of the forest road network. There is a high probability that, in order to reach the unutilised resources, forest network expansion will devastate the last of these undisturbed habitats.
- Operations such as the removal of decaying wood, "unproductive" species, shrubs or dominated layers, often jointly supported by all these measures, lead to ecological simplification of forest stands. This results in direct habitat degradation, loss of ecological functionality (e.g. higher susceptibility to drought, storms and pest outbreaks), and lower provision of ecosystems services (e.g. water purification, carbon sequestration, runoff control).
- Water drainage projects may damage the biodiversity of valuable wetland habitats, such as the few residual patches of alder forests and forest wetlands. Higher water run-off and worsening flood situations will result from these projects. Funding for water drainage projects in forest land should be eliminated from RDPs altogether.
- Liming and fertilisation projects can be highly controversial. While they may be of benefit to forests where soil fertility has been compromised by human activities, the majority of projects damage soils and biodiversity.
- Insecticide use is supported by several RDPs[37] under measure 226 (Restoring forestry potential and introducing prevention actions). Large-scale spraying can seriously damage forest biota, especially insect communities and soil life, and harm ecological stability and the self-regulatory potential of forest ecosystems. Application of insecticides should be limited to timber piles, and support for spraying stands should be explicitly excluded (Postulka 2008).

Detailed and robust environmental safeguards need to be specifically built into the description of these measures. The following minimum safeguards are recommended:

- Environmentally damaging investments should be excluded (e.g. drainage, removal of non-commercial species) or clearly restricted and disciplined (e.g. localised sanitary interventions);
- Only tree species native to the relevant habitat type should be used in planting or seeding, and in the appropriate mutual ratio/mix;
- Support should be excluded for forestry operations using clear cutting, and selective non-clear cut forestry should be promoted;
- Supported forestry operations should not take place during the nesting period of birds;
- All investments must seek to restore natural forest structure (species richness, complexity and age of stands, amount of dead wood) and improve the ecological functionality of forests;
- All such measures must include clear references to the need to maintain and restore protected habitats and species, to comply with Natura 2000 management plans and to carry out specific impact assessments in the case of sites that still have no management plans (including sites where the designation procedure is still not complete).

Environmental conditions attached to these measures are often weak[38] and may even work against EU biodiversity legislation. As explained in section 4.1, safeguards covering only Natura 2000 sites and references to national or regional EIA legislation and forestry plans are generally insufficient and difficult to evaluate by Commission officials in charge of the RDP approval. In some countries the existence of local forest management plans, which may have been in place for many years and take little account of biodiversity, can be used to avoid more detailed and robust environmental safeguards[39]. Again this level of information is hardly ever available to Commission officials.

Generic environmental safeguards are insufficient or difficult to assess

Bulgaria

125 - Improving and developing infrastructure [...]

New forest roads will not be subject to the EIA because the construction of roads is considered to be part of

36. Bulgaria, Cyprus, Czech Republic, France (mainland), Latvia, Slovakia, Spain (various)
37. E.g. Czech Republic.
38. E.g. Latvia, Romania, Slovakia, Spain (various).
39. E.g. Bulgaria, Slovakia

the so-called "sustainable forest management plans". In fact, many of these plans are old-fashioned and do not contain information on biodiversity or, in rare cases when such information is available, it is not taken into account when planning forestry operations. Although they are being upgraded, plans still consider only the commercial value of timber, and biodiversity is hardly mentioned.

Latvia

122 - Improving the economic value of the forest

Pre-commercial thinning and replacement of stands with low commercial value. Forest owners will have to fulfil relevant national legislation and prepare a forest inventory, but such conditions are not sufficient to protect biodiversity.

Romania

122 - Improving the economic value of the forest

125 - Improving and developing infrastructure [...]

Construction of forest roads and replacement of "low-value" forest stands are supported. There is a specific safeguard requiring EIA only for projects affecting Natura 2000. No environmental safeguard has been defined for forest outside Natura 2000. In addition, the designation of Natura 2000 sites in Romania is still at an early stage.

Austria

122 - Improving the economic value of the forest

This measure is aimed at intensification of forest use, especially for bioenergy production. Highly damaging[40] operations are supported, e.g. clearing of under-storey and dead wood. There are no specific safeguards for biodiversity, although it is stated that agreement with the nature conservation departments must be achieved only in the case of "forests with special habitats" (i.e. protected areas including Natura 2000 sites).

Slovakia

Various measures

In 2007, nature protection legislation (implementing the Birds & Habitats Directives) has been amended so that environmental restrictions do not apply if a forest management plan is already in place.

New forestry roads[41] providing access to relatively undisturbed areas (usually at high elevations and on steep slopes, and with higher proportions of deadwood and old trees) are negative for biodiversity as they enable more intensive forestry management, increased fragmentation and disturbance (e.g. by hunting and leisure) of forest habitats. If environmental safeguards are not sufficiently robust and detailed, the consequences can be highly damaging. Forest road expansion is supported even in countries that have a high density of existing roads[42]; therefore, projects concentrate on the few remaining inaccessible areas which are invariably the most important for biodiversity.

Measure 226 (Restoring forestry potential and introducing prevention actions) generally acts to support fragmentation of forest land by roads and firebreaks, in order to ease fire control[43]. These operations are quite controversial, as accessibility to forest areas increases fire risk rather than representing a solution to the problem (Romero-Calcerrada 2008).

Fire prevention and restoration operations threatening the environment

Cyprus

226 - Restoring forestry potential and introducing prevention actions

There is provision for the opening of more forestry roads and firebreaks. These will tend to increase fragmentation, erosion and disturbance for forest birds, not least from poaching, which is a critical problem in Cyprus. Provisions for re-planting in burnt areas do not include sufficient safeguards for nature conservation, and projects will probably result in planting even-aged stands of Pinus brutia, creating simplified and highly fire-prone systems. Native forests are very open and include a high diversity of plant species (mostly understorey).

Other operations aiming at prevention and restoration, and potentially damaging forest habitats, are the removal of dead or decaying wood, soil cultivation, replanting etc[44].

40. Many endangered species (Annex I Birds Directive) linked to mature forest will be negatively affected: White-backed *(Dendrocopos leucotos)*, Grey-headed *(Picus canus)* and Black woodpecker *(Dryocopus martius)*, Collared flycatcher *(Ficedula albicollis)* etc.
41. Opening of new forest roads is supported by many RDPs: E.g. Austria, Bulgaria, Italy, Romania, Slovakia, Spain.
42. E.g. Austria and Italy.
43. E.g. RDPs of Cyprus, Spain, Slovakia.
44. The operations are supported also in other RDPs e.g. Italy (Puglia).

Removal of dead or decaying wood, soil cultivation, and replanting

Austria

226 - Restoring forestry potential and introducing prevention actions

The replacement of "labile" (i.e. old) stands with "stronger" young trees often leads to a reduction of the stability of forest ecosystems instead of improving their functioning. There are no safeguards regarding biodiversity - e.g. sensitive areas for the Capercaillie (*Tetrao urogallus*) or the Black grouse (*Tetrao tetrix*). Another major problem is that the "separation of forest and pastures" can be supported. However, such mixed land-use, typical of the sub-alpine region, creates vital habitat for endangered wildlife.

Latvia

226 - Restoring forestry potential and introducing prevention actions

One of two supported activities is "restoration of forestry potential in the areas affected by fire and/or natural disasters". It is an unfavourable action for forest biodiversity because during the restoration operations dead wood is removed and sometimes soil cultivated. Natural succession is not allowed and many species (e.g. insects living on burned wood) could be negatively affected by these projects.

In some cases, these measures are also designed to promote the maintenance of unsustainable plantations that have been established mostly with EU funds during previous programming periods.

Promotion of exotic plantations with no value for wildlife

Portugal

Axis 1, various measures

Significant funding is still channelled to the promotion of the competitiveness of Eucalyptus plantations, a tree crop with no value for native wildlife, which has replaced grassland and other valuable habitats over the last decades.

Nevertheless, forestry measures can play a role for biodiversity and the environment, when encouraging the maintenance and sustainable use of native forest types.

Support to forestry systems that are beneficial for biodiversity

Portugal

Axis 1, various measures

The 712 000 ha of Cork oak (Quercus suber) woodlands are very important for the environment because they support high biodiversity, act as barrier against desertification, are resistant to fire and increase carbon fixation through cork extraction. Cork production competitiveness is tackled by various measures under Axis 1.

4.5 Food quality schemes (132, 133)

Measures that promote participation in food quality schemes can have a role in supporting biodiversity, often acting in conjunction with Axis 2 schemes. This is the case for organic farming certification and, in some cases, for Protected Designations of Origin (PDOs), although intensive and extensive farming systems can co-exist under the same PDO.

PDOs can support HNV farming systems

Spain (Extremadura)

132 - Supporting farmers who participate in food quality schemes

133 - Supporting producer groups for information and promotion activities for products under food quality schemes

Among the supported PDOs, there are the "dehesa de Extremadura" ham and "La Serena" cheese, both of which are linked, in many cases, to HNV farming systems. However, the "dehesa de Extremadura" PDO includes, besides the "acorn fed" denomination, also two other denominations which are not linked to extensive production systems (Beaufoy 2007).

A mixed picture is presented across the EU Member States; support for organic certification is provided in many RDPs[45] however, funds are never clearly ring-fenced for this specific food quality scheme. In some notable cases these measures do not support organic farming[46].

4.6 Less Favoured Area payments (211, 212)

LFA schemes represent a significant proportion of Axis 2 expenditure. In general, they are designed only as income support tools and do not specifically target environmental needs. Nevertheless, LFA payments often represent a substantial proportion of farmer income and therefore can help to ensure the continuation of HNV farming systems, providing incidental environmental benefits in a highly inefficient way. If eligibility rules are not sufficiently detailed, farms with little value for the environment can also receive support.

In England these shortcomings are being addressed by replacing the LFA scheme with an upland agri-environment scheme in 2010. Farmers will have to comply with grazing and other requirements, and select management options in return for scheme funding.

The maintenance of High Nature Value systems where environmentally positive management is presently practised is critical to sustaining and developing biodiversity, a fact that is recognised by this being one of the mandatory impact measures in the Common Monitoring and Evaluation Framework. However without effective targeted support market pressures may lead to harmful intensification or abandonment. This presents a structural problem for Rural Development programmes, as no single measure is capable of providing the support required:

- Axis 1 investments often actively discriminate against these marginal systems, by channelling funds to already competitive sectors, and by requiring high levels of match-funding that are likely to be available to competitive entrepreneurs (who often do not really need public investment), but not to marginal operators.

- Less Favoured Area payments could in principle target "structural" support at marginal HNV systems, but fail to do so systematically because they do not discriminate between "HNV" and "non-HNV" management systems; instead they give a payment to all farmers in a certain area, often with minimal environmental conditions attached.

- The agri-environment measure, being based on a strict income foregone and additional cost formula, is suitable for compensating farmers for repair of environmental damage caused by intensive farming. However, agri-environment is not able to provide sufficient support to systems that are already operating and benefiting the environment, but are unprofitable.

This is a fundamental problem that must be addressed in the next round of CAP reform. In the meantime it is important to focus on the optimal combination of LFA and agri-environment schemes to support HNV areas.

The main challenge for LFA schemes is therefore to target more effectively the farming systems that actively contribute to the conservation of biodiversity. This requires the definition of appropriate eligibility rules at farm level to selectively support High Nature Value farming systems. Current approaches relying mainly on geographical delimitation exclude some HNV farms from support and include non-HNV farms.

On the other hand there are examples which show how this measure can be used in a targeted way. For example, a step towards targeting HNV farming systems is the identification of maximum and minimum stocking density, in order to match the pedo-climatic context.

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Fine-tuning livestock density

France (Hexagone)

Grassland and forage crops are better paid than other crops, and transhumant farms receive an additional incentive equivalent to 10-30% of the basic payment. For livestock farms, a range of maximum and minimum livestock densities has been fixed at regional levels, and if stocking density falls outside the optimal range, reductions are applied to the payment. In any case, stocking density must fall within a range, defined at department level, with minimum ranging from 0.1 to 0.35 LU/ha and maximum ranging from 1.6 to 2 LU/ha depending on the type of disadvantage. While actual effectiveness would vary with the adequacy of the stocking rate definition, this approach clearly allows targeting support at environmentally valuable extensive grazing systems.

45. E.g. France (Hexagone), Germany, Greece, Italy (most RDPs etc), Poland, Spain, UK (Scotland).
46. E.g. Belgium (Wallonie), Italy (Puglia).

Perverse incentives favouring unsustainable activities, as well as eligibility rules discriminating against some groups of potential beneficiaries, without any environmentally relevant reason, need to be urgently removed. Issues identified include:

- Exclusion of farmers in groups most likely to manage HNV farmland[47];
- Livestock stocking density limits set above sustainable levels[48];
- Farming systems with negligible environmental value being supported.[49]

LFA schemes are poorly targeted and divert resources from better-designed measures

UK (Scotland)

The LFA scheme is the most important measure of the Scottish RDP in budgetary terms (30% of the budget). 85% of farmland is classified as LFA and the only condition attached is cross compliance. The scheme plays a role in maintaining land management in fragile areas, however, it is not targeted for this purpose. Although a supplement for mixed grazing is foreseen by the RDP, it is actually paid without any requirement to meet this condition. How this complies with the income forgone and additional cost principle is unclear. An analysis of where the payments go shows that the more intensively farmed areas towards the east of the country receive the bulk of the funding (Scottish Environment Link 2008). This could sustain more intensive and damaging grazing systems.

Slovakia

LFA payments have a higher budget than agri-environment payments. During the last three years, in some parts of Slovakia where LFA payments were delivered (even within Natura 2000 sites), there has been an increase in cultivation of oilseed rape and maize for biofuel production, even in areas where such crops had never been cultivated before.

Finland

The LFA measures absorb almost 40% of the RD budget. They are not designed to deliver biodiversity outcomes and therefore payments do not guarantee positive environmental impacts, and may even promote intensification of production. Despite the fact that Utilised Agricultural Area (UAA) in Finland has remained fairly stable, the state of biodiversity has deteriorated. All production types are supported, and the only eligibility rule is that the farm area should not contain over 50% of fallow land.

Italy

LFA payments in the majority of Italy's RDPs are not attached to environmentally relevant eligibility criteria. For example, retired or old farmers, who often manage most of the HNV farming systems, are excluded from support in Puglia, Sardegna, Emilia Romagna and other regions. The management of grassland with appropriate stocking density should be the main operational objective of these measures. Despite this, livestock farms with up to 3 LU/ha are supported in Abruzzo, Lombardia, Trento, Liguria, Campania, Calabria and Basilicata. Some RDPs, for example Valle d'Aosta, Bolzano, Lombardia, Friuli Venezia Giulia, Molise and Sardegna, do not exclude from support farming systems with little value for biodiversity, as for instance tree nurseries, industrial crops, vegetable crops and intensive orchards.

In some cases, LFA payments can even incentivise farming practices that lead to higher pressure on natural resources.

Higher LFA payments for irrigated land

Spain (various RDPs)

Irrigated surface (maximum 5 ha within the holding) is better paid than non-irrigated, although the latter should, in principle, suffer more from the natural disadvantage and exert lower pressure on water resources.

4.7 Natura 2000 and Water Framework Directive payments (213, 224)

Council Regulation (EC) No 1698/2005 introduced these measures as a compensation system for mandatory prescriptions arising from management plans linked to Natura 2000 Directives (Birds 79/409/EEC and Habitats 92/43/EEC) and Water Framework Directive (2000/60/EC).

47. E.g. Greece, Italy.
48. E.g. Belgium (Wallonie), Ireland, Italy.
49. E.g. Austria, Ireland, Italy (various RDPs), Romania, Slovakia.

Across the EU, these measures currently represent less than 1% of RD total public expenditure. This is because the implementation of these measures is dependent upon Member States having already prepared the above-mentioned management plans, or having introduced horizontal management prescriptions through national legislation. Delays in the preparation of management plans have prevented implementation of these measures in many Member States[50], and have led the Commission to take action to prevent Member States from allocating funds for Natura 2000 compensatory payments. As the funds have not been ring-fenced, it is likely that most Member States will massively fail to deliver effective implementation of the Natura 2000 network. Delays in the preparation of WFD management plans are particularly serious[51].

Delay in implementation of the Water Framework Directive

Italy

Despite widespread depletion and pollution of water resources, none of the Italian regions has properly implemented the Water Framework Directive, and therefore no compensation is available to land managers.

The Natura 2000 network covers more than 20% of the total EU territory, but the designation process of sites (both Special Protection Areas and Sites of Community Importance) can be considered complete only in Belgium, Denmark, Italy and the Netherlands. The designation of Special Protection Areas (according to the Birds Directive) can be considered complete only in Belgium, Denmark, Estonia, France, Italy, Luxembourg and the Netherlands, while the designation of Sites of Community Importance (Habitats Directive) is largely complete only in Belgium, Denmark, Germany, Italy and the Netherlands (European Commission 2008a). The need to address wildlife conservation with schemes that are not restricted to designated Natura 2000 areas is therefore particularly critical in all the other Member States.

Incomplete coverage of Natura 2000 payments

Slovakia

Natura 2000 payments for both farmland and forest have been introduced, but they are only available in those Special Protection Areas (Birds Directive) that have also been designated as protected areas or nature reserves. As a consequence, in the whole country, these tools could potentially cover a maximum of only 4000 ha of farmland and 30,000 ha of forest.

Problems arise when the quality of management plans is poor (e.g. lack of quantitative conservation targets, and detailed and targeted prescriptions). These measures are used as additional income support tools, paying for operations reflecting the common practice or with little value for biodiversity[52]. Issues related to the quality of options and schemes will be discussed in detail in the sections on agri-environment and forest environment payments.

Natura 2000 payments producing only indirect benefits for wildlife

Latvia

Natura 2000 payments compensate for restrictions poorly tailored to nature conservation needs. In addition, payments are not differentiated according to the level of restrictions. Some indirect benefits may arise as this measure represents an incentive to continue managing meadows and pastures.

Some Member States[53] do not use Natura 2000 measures, taking the view that mandatory prescriptions at the "do no harm" level arising from a clearly defined legal obligation, should already be included in the cross compliance baseline, while active positive management should be supported through agri-environment payments.

50. E.g. Bulgaria, Italy (Puglia etc), Poland, Portugal, Romania, Slovenia.
51. E.g. Italy, Latvia.
52. For example, we estimate that in Austria all the budget of Measure 213 (Natura 2000 – farmland) is likely to deliver for nature conservation, while only 50% of the budget of Measure 224 (Natura 2000 – forest) is expected to directly benefit biodiversity.
53. E.g. France, UK.

4.8 Agri-environment payments (214)

Agri-environment (AE) is the only mandatory measure within the RD framework, and in financial terms is the most important of the rural development measures. In the current programming period, nearly three million farms will be supported by agri-environment payments, covering a total area of almost 39 million hectares across the EU (European Commission 2008c). Payments are made to farmers who make voluntary agri-environmental commitments that go beyond the relevant mandatory standards.

Member States have implemented a number of well-targeted and effective schemes. Typical features of these schemes are:

- clear environmental objectives and prescriptions clearly linked to them;
- science-based schemes, including detailed management prescriptions, targeted at particular habitats or endangered species;
- a suite of packages that can be used additively to construct tailored schemes for individual holdings, but with a meaningful minimum set of options to be taken;
- biodiversity needs taken into consideration when designing resource protection schemes, creating win-win synergies.

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Well-designed schemes have been introduced, including in the new Member States

Italy (Emilia Romagna)

20-year set aside for habitat restoration is supported. This scheme was also implemented in the two previous programming periods, allowing for the restoration of about 9500 ha in the Emilia-Romagna region. In this region, the whole national population of Whiskered tern (*Chlidonias hybrida*) is breeding on these plots of restored wetland. Tens of thousands of wintering birds and increasing numbers of breeding threatened species have re-colonised areas that had very little biodiversity left following decades of drainage and intensive farming. Most of the areas restored by farmers over the last 15 years have now been included in the Natura 2000 network.

Slovakia

Two schemes with a clear biodiversity focus have been included. The scheme for "Habitat protection of semi-natural and natural grasslands" targets seven habitat types and lays down detailed and appropriate prescriptions for mowing and grazing and use of organic manure. Synthetic fertilisers and plant protection products are banned with the exception of herbicides for local control of invasive plant species.

The scheme for "Habitat protection of selected bird species" targets three groups of birds: birds of prey, the Great bustard (Otis tarda) and other key farmland birds[54]. Management prescriptions address the main farming practices, including mowing and grazing, crop rotation and use of chemical inputs (excluding a number of active substances). However, the quite low payment levels, ranging from about 40 €/ha to about 75 €/ha, can limit the uptake of this scheme. Another severe problem is that this scheme is available only in Special Protection Areas identified according to the Birds Directive and fully designated at national level (a ministerial decree is needed). At the moment, the designation process has been completed for only 21 out of 38 proposed SPAs.

UK (England)

Agri-environment schemes in England are well-designed to deliver biodiversity and other environmental benefits. The entry level and higher level schemes have been designed in co-operation with stakeholders and environmental experts, and are well grounded in scientific understanding of underlying problems. However, improvements are still needed. Of particular concern is the balance of option uptake within the ELS (farmers tend to choose the least ambitious options). Recent reviews have sought to examine this, but steps to mitigate the problem are not going to be taken for some time, and less beneficial and simpler options will continue to dominate uptake patterns.

Romania

The schemes for High Nature Value grasslands, traditional farming and grasslands supporting important birds (still in pilot implementation phase) offer well-designed packages of actions such as appropriate mowing dates, exclusion of chemical inputs, appropriate grazing regimes etc.

Bulgaria

A number of schemes target wildlife conservation: HNV measures for grassland management, HNV measures for

54. *Crex crex, Perdix perdix, Coturnix coturnix, Anthus campestris, Tringa totanus, Limosa limosa, Saxicola rubetra, Alauda arvensis, Miliara calandra* and *Anthus pratensis*

Could do better ?

© S Nagy

1

© Juha Tiainen

2

Land consolidation (Figure 1), replacement of ditches with underground piping (Figure 2), restoration of abandoned drainage networks (Figure 3) and other modernisation measures supported through Axis 1 often lead to loss of wildlife habitat and landscape diversity.

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3

Could do better?

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1

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2

Expansion of irrigation (Figure 1) and greenhouse complexes (Figure 2) are destroying some of Europe's most valuable habitats. Similar impacts are often linked to the establishment of super-intensive olive plantations and other permanent crops (Figure 3). Such developments are still being funded through Axis 1 investments.

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3

Could do better?

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Figure 1
Less Favoured Area support that is not linked to environmental criteria can lead to perverse effects, such as increased soil erosion.

Figure 2
While improving the ecological functionality of forest is still underfunded, most RDPs support forest exploitation intensification, often without sufficient environmental safeguards.

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Could do better!

© Andy Hay (rspb-images.com)

1

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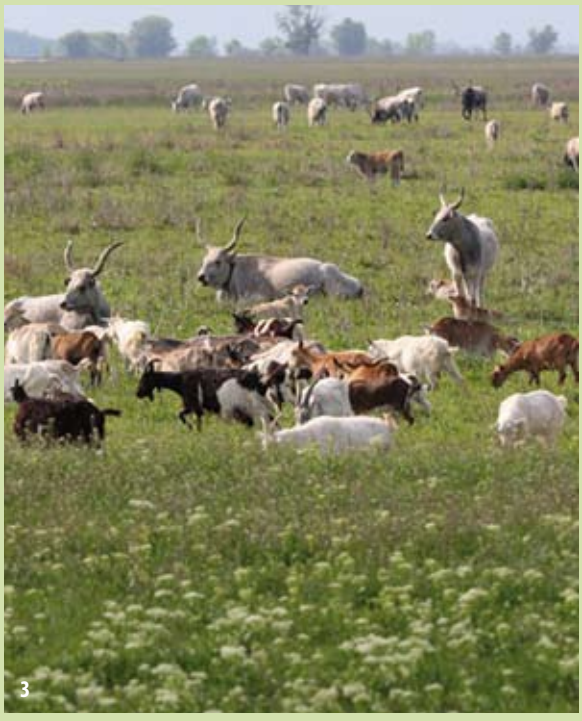
2



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3

Reversion of arable land to permanent grassland (Figure 1) is a common agri-environment option delivering on several environmental objectives, such as biodiversity, water quality and soil erosion.

Wet grasslands (Figure 2) and extensive mixed grazing systems (Figure 3) are examples of High Nature Value farming whose conservation requires an appropriate combination of measures from all rural development axes.

bird habitats, mountain pastoralism and preservation of local breeds. Other good schemes are included in the RDP but have not yet been launched (Maintenance of waterfowl habitats, Restoration of riparian habitats and measures related to preservation of traditional landscapes and field margins).

Poland

Two packages for the protection of endangered bird species and plant communities (both inside and outside Natura 2000) are designed for the management of high biodiversity grasslands, home to the largest world population of the Aquatic warbler (*Acrocephalus paludicola*), as well as other threatened species needing large contiguous areas of wet grassland.

Greece

Thanks to close co-operation with environmental NGOs, specific actions are planned for the conservation of wildlife, with priority being given to some species in the Birds & Habitats Directives - e.g. Jackal (*Canis aureus*), Brown bear (*Ursus arctos*) and Lesser kestrel (*Falco naumanni*). Still, improvements are needed to target more species and habitats.

France

A well-designed set of options, including delayed mowing and conversion of arable to permanent grassland, is now available to support endangered farmland birds such as the Little bustard (*Tetrax tetrax*) and the Corncrake (*Crex crex*). However, there is a need for a better fine-tuning of mowing and grazing operations to avoid disturbance during the nesting period of the particular target species, as well as additional efforts in promoting such options among farmers.

Spain (Navarra)

The scheme for "cereal steppes" is available for holdings over 20 ha (in order to obtain a minimum habitat area) of arable land. Many prescriptions are set for harvesting practice, management of fallow and set-aside areas, rotational crops, dates and management of grazing on cultivated areas.

In addition, the Natura 2000 payment for "sustainable management of sheep grazing systems" supports the proper management of grazing and the reduction of livestock density.

These two actions are targeted to priority areas (three SCI/SPA: 40.000 ha), covering almost the total area of designated steppe habitats. Furthermore, the first action can be implemented outside Natura 2000 sites. A likely negative aspect could be that there is no specific prescription for pesticides or fertilisers.

Spain (Extremadura)

The maximum livestock density allowed by the EEC organic regulation (2092/91) is 2 LU/ha. In the pedo-climatic conditions of many European regions, this livestock density is too high to allow a sustainable management of grassland and to avoid water pollution. The organic farming scheme of Extremadura sets a maximum stocking density of 0.5 LU/ha, which is more suited to the local conditions.

Austria

The organic farming scheme includes a valuable prescription on mowing date for lucerne: not before 15th July.

Finland

The following AE schemes represent good examples of schemes delivering multiple environmental benefits through well-designed prescriptions that are targeted to the needs of specific habitats: Establishment and management of constructed wetlands to reduce the nutrient run-off and enhance biodiversity; Management of traditional biotopes.

Germany (Schleswig – Holstein and Rheinland-Pfalz)

Well-designed schemes for management of grassland for wildlife (ground-nesting birds, amphibians, plants etc.) have been introduced. Depending on the option, commitments include: maximum stocking rates, no use of fertiliser or pesticides, pre-defined cutting dates, evidence of species present etc. Some options are combinable with Natura 2000 payments.

Sweden

Grassland schemes are combined with specific schemes such as for pollarding of trees[55].

At the other extreme are schemes that appear to require little commitment beyond cross-compliance. The widespread failure of AE schemes to improve the situation of farmland biodiversity

55. In order creates holes in tree trunks and leave decayed wood, thus supporting lichens, mosses, fungi, saproxylic insects, bats and several bird species, e.g. the Wryneck *(Jynx torquilla)* and the Lesser spotted woodpecker *(Dendrocopos minor)*.

must be understood against the backdrop of the use of AE schemes as top up income support rather than bona fide environmental schemes. This is clear in many countries, including Finland, Ireland, Cyprus and regions of Spain (Kuussaari et al. 2007). In some cases, specific production types are targeted for support, without any meaningful environmental outcome.

These schemes show one or more of the following undesirable features:

- unclear or un-measurable environmental objectives;
- payment linked to undemanding management conditions that add little to cross-compliance;
- commitments virtually impossible to monitor and control (e.g. integrated farming, less fertilisation etc);
- support for management systems that have little environmental benefit. In some cases, the combination of very weak prescriptions and the targeting of a specific crop suggests schemes are being used as hidden "Pillar 1 style" coupled support.

No meaningful environmental improvements going beyond "business as usual"

Cyprus

A scheme for the preservation of traditional trees and bushes (2.3.6) does not go beyond what would be expected under cross-compliance (GAEC, Regulation (EC) No 1782/2003, annex IV «Retention of landscape features»[56]) and includes the stipulation for clearing of "unwanted" vegetation from around these trees and bushes, which would likely lead to negative environmental and biodiversity impacts.

Finland, Germany

Some schemes are controversial, such as no-tillage (weed management where herbicides replace tillage) or avoiding growth regulators. Most problematic for hidden income support are zero-tillage schemes since they are competitive even without payments, especially with high fuel prices. For this reason, non-inversion tillage/zero-tillage is the most popular scheme of choice in Finland. Its effectiveness for biodiversity has never been studied in the country, and its value in reduction of nutrient leaching was shown to be negligible on clay soils typical for the country and currently highly compacted (Turtola et al. 2007).

Finland; similar problems also in Ireland

Commitments on lower fertilisation are virtually impossible to verify in the field. In addition, the permitted levels of fertilisers under the current RDP are very close to the optimum recommended by agrochemical companies. The phosphorous rates recommended by research as effective for cereals and perennial grasses are about half the maximum rate allowed by the AE measures (Valkama et al. 2009). Under the current programme, only 80% of phosphorus in manure is accountable in calculating rates of applications per ha (20% in excess is tolerated).

Levels of nutrient inputs adjusted for the soil nutrient state (additional option) are calculated on the basis of the expected yield. Farmers tend to set the expected yields at maximum achievable, and consequently apply too much fertiliser (Marttila et al. 2005).

The minimum width of margins is 1 m, which is just 40 cm above the cross-compliance requirement, and even then over 50% of the monitored margins were narrower than the requirement (Kuussaari et al. 2007).

Italy (Toscana and other RDPs); similar problems in Austria, Latvia etc.

Prescriptions established for integrated farming correspond, by and large, to normal practice, and therefore are not linked to additional cost and income foregone. In olive groves, a maximum of two insecticide treatments against the olive fruit fly (Bactrocera oleae) is a normal practice in Toscana. In durum wheat production, a maximum of 170 kg/ha of nitrogen and three herbicide treatments are again quite a common practice. In addition, such prescriptions cannot be verified on the spot. The integrated farming scheme (also called "sustainable farming" or "input reduction") has been included in almost all Italian RDPs and is generally affected by similar flaws. These schemes are unlikely to deliver any environmental benefit, but take up a large share of the AE budget.

Spain: Andalucía, Extremadura

An option for "integrated control" pays olive growers for drawing up a fertilisation management plan based upon soil analysis and for pest monitoring. While this may lead to less input use, it would also save money for the farmer and should not be classed as an agri-environmental commitment.

56. New wording of the Good Agricultural and Environmental Conditions (Council Regulation (EC) No 73/2009 Annex III): "Retention of landscape features, including, where appropriate, hedges, ponds, ditches trees in line, in group or isolated and field margins".

Spain (Madrid)

A scheme to replace irrigated arable crops by irrigated tree crops is included in the farm modernisation measure (code 121). The first five years after planting the tree crop are supported under agri-environment payments, as this is considered an unproductive period. Although the objective of this scheme is to replace irrigated arable crops by tree crops with lower water and chemical input requirements, there is no guarantee that the newly planted tree crops will require less water[57] and chemical treatments. In addition, while the general minimum threshold for such projects is 3 ha, a lower threshold (1 ha) has been fixed for super-intensive olive plantations (i.e. with more than 300 trees per hectare), which in fact have an unproductive period of only three years. The annual payment is 898 €/ha, very close to the maximum ceiling (900 €/ha) established by the EC regulation 1698/2005.

Spain (Castilla y León)

A specific AE premium for "dry sunflower cultivation in Natura 2000 sites" has recently been proposed. In an earlier version of the programme, this option also included oilseed rape. Dry cultivation of sunflower, without any additional environmental requirement, is considered beneficial for wildlife. This option is clearly designed to replace the Pillar 1 energy crop payment.

Greece

A scheme for integrated management in cotton and tobacco pays, in fact, for common practice, and has been introduced to address the financial problems of farmers after the abolition of Pillar 1 payments for these crops.

In some cases, AE schemes aiming to provide income support can even damage the environment.

Support for specific production types with environmentally harmful prescriptions

Cyprus

Soil cultivation (instead of herbicide application) in vineyards is paid 600 €/ha, with additional 200 €/ha in mountain areas or where slope exceeds 15%. This scheme is clearly overpaid when compared to its environmental outcome. Perversely, it is likely to increase soil erosion. The scheme would have been more effective if soil cultivation was replaced by weed mowing or trimming.

The schemes for integrated production of potato and arable crops include at least one year of fallow, which is, in principle, positive for biodiversity. However, it is prescribed that soil must be cultivated at least twice a year during the fallow period, therefore this scheme will have negligible value for wildlife habitat provision or for increasing soil carbon sequestration. Indeed, labouring during the breeding season may transform fallows into "ecological traps" for ground nesting birds.

France (Réunion)

The few AE funds available are spent for income support schemes with negligible environmental value: reduced fertilisation in vegetable crops (500 €/ha), biological pest control in greenhouses (1030 €/ha), maintaining pasture (150 €/ha, although grasslands have no value for the conservation of local wildlife) and planting hedgerows of exotic species.

Austria

Options for soil protection in vineyards and orchards are based on sowing or mulching, but their design does not appropriately match the need for control of soil erosion, and can have negative effects on native geophytic plants, as well as on insects and ground-nesting birds.

The option for integrated production in orchards pays for normal practice in intensive orchards[58], and payment levels are higher than those for conservation of traditional orchards, therefore potentially driving intensification of these systems.

Finland

An option for direct injection of sludge aims to reduce ammonia emissions, but increases nitrogen run-off and destroys the nests of ground-nesting birds. This appears to be a payment for livestock farmers to dispose of their sludge.

4.8.1 Payment levels

Two types of inconsistency are found, which lead to the costs and benefits of AE options not being fully recognised and therefore limit their effectiveness in achieving their objectives (see also section 4.1 for a discussion of this issue across different measures):

57. The crop coefficient (Kc) for super-intensive olive plantations is 0.75, with a water requirement of 600-800 mm per year, while Kc of maize ranges from 0.3 to 1.2, depending on the phenological stage, and water requirements are 500-800 mm (FAO 2008; Grattan et al. 2006).
58. Traditional orchards, with old and scattered fruit trees, host important populations of endangered birds such as the Wryneck *(Jynx torquila)*, the Scops owl *(Otus scops)* etc.

- **Inconsistency within RDPs.** It is not unusual for uptake of biodiversity friendly schemes to be undercut by the availability of less demanding but better compensated schemes, including less demanding AE options[59]. There are several examples of "integrated farming" or "input reduction" being paid more than organic farming despite being a much less verifiable and less demanding system to implement (and providing much reduced environmental benefits).

- **Inconsistency between RDPs** covering adjoining areas. This is most obvious in Member States that have implemented the RDPs at regional level[60] and results in ineffective management of habitats that extend across regional or national boundaries.

In general, AE schemes are more effective if deployed over large and connected areas (Aviron et al. 2007; MacDonald et al. 2007). Therefore, uptake by groups of neighbouring farmers should be promoted. For example, the RDP of Umbria (Italy) gives priority to applications submitted by groups of farmers managing altogether at least 500 ha. Conversely, the RDP of Poland applies a payment rate to some AE options which is inversely correlated to the land area under contract, or fixes a maximum capping (100 ha) per holding. Such mechanisms are symptomatic of an income-support logic underpinning the design of AE schemes and overshadowing the environmental objectives.

Payment levels not proportional to complexity of commitments

Italy (various RDPs)

Variation in premia for organic farming (winter cereals) in a selection of Italian RDPs (some RDPs have been excluded because this option has been linked to significant additional commitments than the EEC regulation on organic farming). These data suggest that premia calculation can be rather inconsistent and idiosyncratic (note the 70% change between administrative regions in the north Italian plain).

region	*premia € / ha*
Puglia	96
Lombardia	140
Sardegna	140
Emilia Romagna	142
Campania	143
Veneto	144
Toscana	150
Marche	160
Liguria	180
Umbria	200
Friuli Venezia Giulia	200
Trento	450

While organic farming has well-documented environmental benefits, it is clear that some premia are heavily over or under compensated. Similar problems can be found for most agri-environment options, although comparisons across RDPs are much more difficult because options are designed in different ways.

Spain (Madrid)

The substitution of irrigated arable crops by irrigated tree crops (mainly super-intensive olive plantations) receives an annual premium of 898 €/ha (in addition to support of investment costs under Measure 121), while the annual premium for irrigated arable crops under organic farming is 248.51 €/ha, despite the increased environmental benefits and complexity of commitments. In arable crops, mainly non-irrigated winter cereals, direct drilling (which is possible through applications of total herbicides) is paid 204.15 €/ha, while other options with more clear environmental benefits are paid less: non-irrigated cereal cultivation under organic farming is paid 102.80 €/ha, and 2-year crop rotation with fallow is paid 89.65 €/ha.

Cyprus

The agri-environment scheme for potatoes consists of an option for integrated production (375 €/ha) and an option for mechanical weed control (525 €/ha), which together add up to 900 €/ha, while organic potato production is paid 750 €/ha. The agri-environment scheme for citrus orchards consists of an option for integrated production (300 €/ha) and an option for mechanical weed control (550 €/ha), which together add up to 850 €/ha, while organic production is paid 750 €/ha.

EC Regulation 1698/2005, as concerning agri-environment payments, provides ceilings for annual crops (600 €/ha) and perennial crops (900 €/ha). Derogation to these ceilings has been obtained by Cyprus, although the supported schemes (integrated and organic production) are paid by all the other RDPs within the EU ceilings.

59. E.g. France Hexagone, Spain Extremadura, Cyprus, Italy Lombardia, Slovakia, Portugal.
60. E.g. Germany, Italy, Spain.

Portugal

In Portugal, direct drilling of arable crops is paid 75 €/ha, while organic production of arable crops is paid 76 €/ha. Crop rotation with fallow, targeting conservation of steppe birds in Castro Verde - one of Europe's best delivering AE scheme for biodiversity (Pinto et al. 2005) - is paid only 80 €/ha

Spain (Extremadura)

In Extremadura, integrated olive management is made up of two options that can be cumulated: "integrated control" (124.71 €/ha) and "integrated production" (147.25 €/ha). The sum of these, 271.96 €/ha, is more than the payment for organic olive growing, 266.81 €/ha even though the organic production scheme is more demanding and more verifiable than integrated farming.

Italy (Lombardia)

Grassland management is paid 130 €/ha both under organic and low-input farming, the latter consisting of reduced fertilisation. Organic vegetable and tree crops are paid 290 €/ha and 550 €/ha respectively, while the same crop types under integrated production receive a support of 270 €/ha and 500 €/ha respectively. This equals less than 10% difference between the two schemes, although commitments for integrated production are significantly less detailed and controllable than those for organic production.

Slovakia

The "Integrated production" measure is very questionable because prescriptions are very shallow, poorly designed and the control system is unclear. Moreover, payments are too high (534.50 €/ha for vineyards and 422.26 €/ha for vegetables) if compared to "organic farming" payments after conversion (570.47 €/ha for vineyards, 450.02 €/ha for vegetables), although conditions under the "organic farming" scheme are disproportionately stricter than those under "integrated production".

France

The so-called "territorial schemes" offer packages of measures targeting particular farming systems. These include some very good and well-targeted packages for Natura 2000 sites, water quality etc. However, in most cases payment levels do not reflect the complexity of each option nor its benefit for the environment. Easier and less verifiable options are in some cases better paid than more complex options, with clearer value for the environment. For example, arable farmers can cumulate the option for progressive reduction of herbicide use and the one for progressive reduction of other plant protection products (none of which is verifiable on the spot), and therefore receive a total annual payment of 177 €/ha, which is significantly more than the payment received by organic farmers (100 €/ha). As another example, an arable farmer can choose the option for no crop protection products and herbicides and receive an annual payment of 240 €/ha, while a farmer in organic conversion would receive a lower payment (200 €/ha), although having to use certified organic seeds and organic fertilisers. Similar problems affect the options for viticulture and rotational grassland. Also, option 214 C (mixed farming without insecticide use), which can play a role in sustaining the landscape mosaic, is not competitive with input-reduction options.

Well-designed schemes for species and habitat conservation are not competitive or under funded

Austria

The only scheme specifically designed for biodiversity (sub-measure 28) is penalised by a stricter regional co-financing rule than the other schemes within agri-environment. Conservation options on arable land are not an attractive and competitive option for farmers, because payments are based on outdated cereal prices. For example, basic environmental set-aside is paid only 221 – 331 €/ha. Consequently, the uptake level in Great bustard (*Otis tarda*) areas dropped dramatically in comparison to previous years.

Spain (Extremadura)

The Extremadura region is of primary European importance for the conservation of threatened species. Two schemes have been put in place, one for the sustainable management of "dehesa" agro-silvo-pastoral systems, and one for the conservation of steppe birds. Both schemes have been properly designed, e.g. setting detailed rules on livestock management and crop harvesting. However, payments are too low (46 €/ha and 101.6 €/ha respectively) to compete with current trends in land use change, possibly boosted by agri-environment

options with less clear benefit for the environment (e.g. integrated production of stone-fruit trees, 198.33 €/ha).

Latvia

"Maintaining biodiversity in grasslands" is the only measure that is directly targeted to conservation of biodiversity. The scheme prescribes appropriate management in biologically valuable grasslands – late mowing or extensive grazing. This is very important to conserve biologically valuable grasslands that represent important habitats supporting populations of endangered birds – Corncrake *(Crex crex)*, Great snipe *(Gallinago media)* etc. Nevertheless, as the payment rate is quite low the uptake of this scheme is also low - only approximately one half of all identified biologically valuable grasslands have entered the scheme.

4.8.2 Organic farming

Overall, organic farming is beneficial for biodiversity (Bengtsson et al. 2005; Fuller et al. 2005; Hole et al. 2005; Mäder et al. 2002). This is especially true if support is used to tighten standards beyond levels laid down in the regulation on organic production (834/2007/EC); for instance fine-tuning of livestock density, irrigation, crop rotation, conservation of habitats, exclusion of greenhouse crops etc. Organic farming, along with other prescriptions banning herbicides and chemical pesticides, could be effectively implemented as a basic AE level, to which more targeted options for habitat management and restoration could be added.

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Organic farming as a basic AE level, combinable with more targeted schemes

Slovenia

The organic farming scheme, through the banning of synthetic fertilisers and pesticides, could potentially contribute to the conservation of endangered species and habitats. However, more targeted schemes need to be combined to deliver the maximum positive output. For example, combining with the conservation of Natura 2000 wet grassland habitats for endangered birds scheme is possible and should be further promoted.

However, some RDPs omit any support for organic schemes and others exclude organic farming systems that may play an important role in biodiversity conservation, such as livestock breeding and grassland, rice and arable crops.

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Crops and farming systems that are important for biodiversity are not supported under organic management

Italy (Puglia)

Organic management of arable land requires long crop rotations, including temporary grassland and forage crops. Animal manure is important for fertility management in organic systems. Organic livestock breeding, through diversifying the use of arable land and incentivising the appropriate management of grassland, is crucial for farmland biodiversity. Nevertheless, the RDP of Puglia, besides applying the lowest payment rate in Italy for cereal crops under organic farming, does not provide any payment for grassland, forage crops or livestock under organic management. This omission will penalise organic arable farmers and make the uptake of this option unrealistic.

Spain (Extremadura)

No support under the organic farming scheme is provided for organic arable crops and rice cultivation, although these farming systems can be extremely important for wildlife.

4.8.3 Conservation priorities

A failure to address the main nature conservation priorities is an issue in a number of RDPs.

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Lack of schemes addressing nature conservation priorities in sensitive areas

France (Guadeloupe, Martinique, Réunion)

Although these islands host an important number of endemic species, and there is considerable pressure from agriculture and other human activities on natural habitats, no specific measure has been designed for the conservation of native wildlife.

Latvia

Nature conservation priorities not addressed by the RDP are:

- Restoration of floodplain meadows or open landscape is specifically identified as a priority in the Latvian RD Strategic Plan. Large areas of former natural and semi-natural grasslands should be restored as part of an appropriate agri-environment scheme by clearing bushes and trees in the abandoned areas, especially in priority areas such as river flood-plains;
- Retaining and creating small landscape elements, such as isolated bushes, trees, stone piles, plots of unmown vegetation, wet depressions etc;
- Restoration of natural hydrological regimes is a priority for Natura 2000 territories and is highly necessary to reverse the negative effects of former drainage.

Italy (Piemonte and Lombardia)

The large paddy rice area in between the regions of Piemonte and Lombardia is home to Europe's most important heronries, including about 40% of the European breeding populations of both the Little egret *(Egretta garzetta)* and the Night heron *(Nycticorax nycticorax)*. It also hosts many other species that are dependent on the rice fields for foraging and nesting such as around 1000 breeding pairs of Black-winged stilt *(Himanthopus himanthopus)*. The conservation of these birds requires the maintenance of a minimum level of water in the paddy fields throughout the breeding period. Nevertheless, while the RDP of Piemonte provides a specific option to promote the optimal water management in paddy fields, no specific action has been included in the RDP of Lombardia.

Italy (Basilicata, Puglia, Sardegna, Sicilia)

In Italy, semi-natural steppe are concentrated in the southern regions and islands, where bird species protected under the EEC Directive 79/409 have important populations, such as the Lesser kestrel *(Falco naumanni)* in Puglia and Basilicata, the Lanner falcon *(Falco biarmicus)* in Sicily and Basilicata, and the Little bustard *(Tetrax tetrax)* in Sardinia. During the past few decades, dry semi-natural grasslands have been heavily ploughed up. For example, in the SPA "Murgia Alta" (Natura 2000 site, Puglia region) permanent pasture was reduced from 60,000 ha in 1985 to 29,000 ha in 2000. Nevertheless, none of these RDPs support any scheme for grassland restoration or any specifically designed conservation action for these species. These issues seem to have been completely ignored during the preparation of the programmes. The word "steppe" is mentioned only in the RDP of Sardinia (just once), while the Lanner falcon and the Lesser kestrel are mentioned only in the RDP of Basilicata (just once respectively).

Inadequate prescription for Natura 2000 sub-measure and so likely to miss its objective

Cyprus

An "interim" sub-measure under AE is meant to bridge the gap until Natura 2000 management plans are completed and when the specific 213 Measure is implemented. Farmers have to maintain a 2 m wide strip of natural vegetation uncut around their fields (up to 30 cm high) during April and May. This operation will not allow ground nesting birds to complete their breeding cycle, as strips are too narrow and the non-mowing period is not long enough. Implementation may also be problematic, as checks are infrequent.

4.8.4 Implementation considerations

Well-designed schemes are necessary, but not sufficient, to deliver success; a number of critical implementation factors must be in place:

- Enough funding is ring-fenced within the budget of Measure 214;
- Payments to farmers are reliable regarding amount and timing. It is especially important, where effective schemes are being replaced, to ensure continuity between schemes. Farmers lose confidence in schemes if payments are made late or in an irregular way, schemes are changed too often or the availability and eligibility criteria are variable and unpredictable. These problems have been highlighted for example in France, Italy, UK, Latvia, and Cyprus[61];
- Effective verification of commitments being respected, and monitoring of impacts;
- A high level of farmer awareness of the schemes. While important improvements in farmers' awareness of bio-diversity-related schemes have been reported, for example, in UK and Slovakia, very good schemes are likely to remain unused in Bulgaria where government officials have discouraged farmers from enrolling in schemes;

61. Only 42% of Cyprus RDP payments for the 2004-06 programming period had been made by the end of 2006. In Scotland there has been a two-year gap between the 2000-2006 and the 2007-2013 agri-environment schemes.

- A well-staffed and trained advisory service (see section 5.2);
- A delivery system capable of reaching all relevant farmers where appropriate. Problems have been signalled, especially in the new Member States, in reaching HNV farmers because of identification and eligibility problems relating to farm size, grazing carried out on communal lands, requirement of long-term land lease agreements (Bulgaria) etc;
- Competitive bidding for funds (where appropriate) based upon the quality of the proposals and measurable outcomes (Wätzold F. & Schwerdtner K 2005).

4.9 Non-productive investments in farmland (216)

The non-productive investments measure provides one-off support for capital works. As many projects also imply an income foregone or some recurrent management costs (e.g. in the case of creating landscape features or restoring habitats), it is important that these measures are clearly linked to specific agri-environment options to cover the costs of income foregone or maintenance on a yearly basis[62].

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Positive examples of non-productive investments

Wales

Support is used for capital items in two agri-environment schemes. In the "Tir Gofal" scheme, grants are available for the restoration of traditional boundaries, new fencing for environmental purposes, restoration and creation of ponds, scrub management and bracken control. In the Catchment Sensitive Farming scheme, grants are available for non-productive investments such as fencing of watercourses, investment in buildings and yards to facilitate clean and dirty water separation, water conservation and establishment of reed beds.

Finland, France (mainland)

In Finland, this measure is used for the creation of multifunctional wetlands and recreation of traditional biotopes. The restoration of wetlands within Natura 2000 and WFD areas is supported also in France.

Greece

Support is given to farmers for purchase and installation of electric fences to prevent damage to livestock and crops and allow coexistence of wildlife and farming activities. Support is also provided for equipment for birds (artificial nests, feeders etc), for purchase and maintenance of Greek shepherd dogs, and for the restoration of landscape features.

As for agri-environment payments, consistency across adjoining regions is crucial to address cross-boundary nature conservation issues.

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Coexistence of large carnivores and extensive livestock not uniformly supported

Italy (Measures lacking Puglia, Calabria, Marche, Umbria, Liguria, Friuli Venezia Giulia, Piemonte, Trento. Measure available in other relevant Regions.)

Coexistence of populations of large carnivores and extensive livestock systems is an important issue for the economy and biodiversity in many regions of Europe. Only the RDPs of some regions provide support for fencing and shelters which are necessary to protect livestock against predators, namely the wolf *(Canis lupus)* and the bear *(Ursus arctos)*, and also to protect the predators in their habitat. This option has not been provided in the above-listed regions, although large carnivores are present.

For positive impacts on biodiversity, support should target habitat restoration, creation of landscape features and ecological networks, structures needed to ensure coexistence of farming activities and wildlife, introduction of nest boxes etc. Given their non-productive nature, the aid intensity for eligible expenses should be 100%; otherwise, it is very unrealistic that the uptake of this measure will be satisfactory.

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Critical elements undermining the uptake of non-productive investments

Italy (Basilicata, Liguria, Molise)

Three conditions are critical for the uptake of this measure.

- payment for investments should be coupled with a specific option under the agri-environment measure, for the compensation of income foregone and management costs;
- the aid intensity for eligible expenses should be 100%;
- the range of beneficiaries should not be restricted only to farmers.

62. Positive examples in UK.

Considering that such investments are "non-productive", a lower aid rate or the absence of compensation for management costs and income foregone would make the uptake of this measure by farmers difficult, therefore realistically limiting beneficiaries to public authorities (e.g. national parks) and environmental NGOs managing land. In these three Italian RDPs these three limiting conditions are present at the same time; hence the uptake of the measure in these regions is likely to be extremely low.

Investment in facilities that are likely to increase the profitability of the holding, as for example items for hunting and tourism, should not be supported by this measure[63], but financed under Axis 3 measures, where lower rates of public co-financing usually apply.

In addition, such projects should undergo a thorough environmental impact assessment in order to avoid disturbance to wildlife through increased accessibility or hunting pressure.

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Support to productive investments in hunting and tourism

Italy (Basilicata, Liguria, Molise, Puglia, Sicilia, Toscana)
The above-mentioned RDPs use the non-productive investment measure to support investments linked to commercial rather than environmental objectives, such as tourism facilities (e.g. pathways and facilities for picnic and nature observation) on private farms, with no guarantees about free public access. The RDP of Toscana also supports investments in hunting estates, e.g. facilities for release and feeding of pheasants etc. Such activities are likely to be damaging to the environment rather than beneficial.

In some cases[64], the introduction of exotic plant species (e.g. Eucalyptus) is supported, although they can harm biodiversity.

4.10 Forest environment payments and non-productive investments in forest (225, 227)

Forest environment payments and non-productive investments in forest are new options in the 2007-2013 programming period. These measures have only been introduced in a minority of RDPs, probably as an effect of the lack of expertise in this field among the RDP managing authorities.

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No funding available for forest biodiversity

Bulgaria, Latvia
225 - Forest environment payments
227 - Support for non-productive investments
In Latvia, these measures have not been introduced, despite proposals from environmental NGOs during the programming phase. Four options were proposed:
- Management of natural forest habitats and Capercaillie lek-sites.
- Diversifications of forest stand structure.
- Management of woodland pastures;
- Conservation of pine forest structure created by fire.

No funding is available in Bulgaria either.

Forest environment payments compensate for commitments beyond the relevant mandatory legislation. They have potential to benefit biodiversity, e.g. through promoting a lower intensity in forestry practices or repressing invasive species. Non-productive investments in forest provide one-off support for operations such as increasing the amount of dead wood, planting broadleaved trees in coniferous stands, installing nest boxes, creating ponds etc. Most schemes seem to be still in an experimental stage and there is large scope for improvement and better targeting of nature conservation priorities.

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Well designed schemes but insufficiently funded and/or restricted scope

Slovakia
225 - Forest environment payments
Two schemes are available. The first is "Conservation of favourable status of forest habitats" scheme, which is accurately designed and targets threatened forest bird species[65]. This scheme includes prescriptions related to leaving a minimum number of standing trees after cuttings, leaving a minimum amount of dead wood, conserving plant species of low economic value, supporting natural regeneration, excluding forestry activities during the breeding period of birds etc.

63. Art 29 of the Commission Regulation (EC) No 1974/2006 states: 'non-productive investments shall mean investments that do not lead to any significant increase in the value or profitability of the agricultural or forestry holding'.
64. E.g. Italy (Lazio).
65. *Picus canus, Dryocopus martius, Dendrocopos medius, D. minor, D. leucotos, Picoides tridactylus, Ficedula albicollis, F. parva, Tetrao urogallus, T. tetrix etc*

The other scheme is the "Habitat protection of selected bird species", which is also very well designed and targets other important species[66]. This schemes sets minimum distances for protection around the nest sites. In a smaller buffer (50 m), forestry activities are completely banned. In a larger buffer (50-300 m), forestry activities shall not occur during the breeding period, and in other periods, specific low-impact techniques have to be used.
However, payment levels are quite low for both schemes, amounting to about 50 €/ha in both cases. Unfortunately, the "Habitat protection of selected bird species" scheme is available only in SPAs whose national designation process has been completed. Up to now, only 21 out of 38 SPAs have completed this procedure, and the remaining 17 sites include the most important forest areas for bird conservation.

Portugal

225 - Forest environment payments

The "Integrated Territorial Intervention" package in eight Natura 2000 sites includes re-naturalisation of forests and plantations, conservation and recovery of tree and scrub diversity in forest stands, maintenance of remnants of native vegetation and conservation of the network of ecological corridors.

France (mainland)

227 - Support for non-productive investments

This measure is properly designed to deliver for biodiversity, but is only available in Natura 2000 sites.

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Major improvements still needed

Italy (various RDPs)

225 - Forest environment payments

227 - Support for non-productive investments

In the past few decades, forests in Italy have dramatically expanded. In spite of this, most stands are biologically poor, because of scarcity of dead wood, presence of invasive exotic species or too simple structure. Except for Calabria, Bolzano and Valle d'Aosta, all Italian RDPs support operations for biodiversity conservation in existing woodland, for example re-naturalisation of coppices and plantations, structure and species diversification, creation of open areas or small wetlands. However, only the RDP of Campania supports the increase in dead wood, while Campania and Lombardia support the eradication of invasive exotic species, and Marche and Umbria support the increase of shrub layer.

UK (Scotland)

225 - Forest environment payments

Forest environment payments include useful actions to address priority species in Scotland such as Black grouse (*Tetrao tetrix*) and Capercaillie (*Tetrao urogallus*). However, some options need to be improved.

The main concerns are similar to those arising from the analysis of AE payments and non-productive investments in farmland; particularly critical are the following issues:

- insufficient funding to be attractive, especially in comparison with afforestation schemes;
- poor targeting of species and habitat conservation;
- skilled and resourced environmental advisory support, along with specific training activities, is not available.

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Support for operations with no value for biodiversity

Austria

225 - Forest environment payments

This measure includes "improvement of the quality of forests" (where quality is considered in its strictly economic sense), and "afforestation or reforestation after harvest". Economic interests, not backed by significant environmental value, can be hidden in these operations.

In addition, the 5-7 year period usually adopted for forest-environment payments does not reflect the ecological timescale of forest ecosystems. For example, postponing a felling by 7 years, in a 60-100 year productive cycle, is not likely to produce significant environmental outcomes. While supporting biodiversity in artificial stands would need some initial works (e.g. localised cuts, introduction of native species, suppression of exotic species), natural stands need a long-term reduction in disturbance level that depends on a "no-management" option. Most endangered forest species require many habitat features that cannot be achieved by short-term contracts:

- multi-tiered forests;
- native tree species in the appropriate mix;
- natural dynamics of the forest stand;

66. *Ciconia nigra, Pernis apivorus, Milvus milvus, M. migrans, Haliaeetus albicilla, Circaetus gallicus, Aquila pomarina, A. heliaca, A. chrysaetos, Hieraeetus pennatus, Falco cherrug, Bubo bubo, Glaucidium passerinum, Strix uralensis, Aegolius funereus etc.*

- old-growth conditions, hollows, deadwood;
- avoidance of fragmentation caused by harvesting (especially clear-cuts).

In some circumstances, the enhancement of the ecological value of forests could be obtained in a more stable and money-efficient way[67] if funding were channelled to national parks, environmental NGOs and other nature conservation bodies to support purchase of forest land to be set aside for environmental purposes on a permanent basis (see section 4.12).

4.11 Afforestation (221, 222, 223)

Afforestation projects have the potential to benefit biodiversity if they are well planned and sensitively implemented with the use of native species in appropriate mixes and distributions. They can be used to restore riparian belts along rivers, increase the size of remnants of native forest in intensive agriculture regions where most forest have been destroyed, help increase landscape complexity or create corridors to connect forest patches. The establishment of agroforestry systems can also play an important role in reversing environmental degradation in intensive monoculture areas.

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Dehesa "high nature value" agro-silvo-pastoral system restoration

Spain (Andalucía, Extremadura, Castilla La Mancha)
Portugal (mainland)

222 - First establishment of agroforestry systems on agricultural land

Dehesa (montado in Portuguese) agro-silvo-pastoral systems are among the most biodiversity-rich agro-ecosystems in Europe, of crucial importance for the conservation of the Iberian lynx *(Lynx pardinus)*, the Black vulture *(Aegypius monacus)* and the Spanish imperial eagle *(Aquila adalberti)*. The restoration of these systems is possible through this measure, which has been included in the RDPs of Andalucía, Extremadura and Portugal mainland, but not in Castilla La Mancha –although dehesas are present in this Spanish region. The uptake of this measure seems problematic, as costs are only partly financed (70 - 80%) and compensation of income foregone is not possible (according to the EC Regulation 1698/2005, art 44), even though the surface is not entirely productive during the first years. In addition, while the above-listed RDPs allocate €817m to afforestation measures (Measures 221 and 223), with questionable environmental value in most cases, only €21m has been ring-fenced for the establishment of agroforestry systems.

On the other hand, afforestation and preparatory works can hamper biodiversity if affecting the following important habitats:

- grasslands, including unproductive steppes and scrubs;
- forest degraded by natural disturbance, with high amount of dead wood;
- extensive arable systems, including fallow land;
- mosaic-type farmland;
- wetlands and peatlands;
- quarry cliffs.

Another major concern is the planting of non-native species or plantations with inappropriate species mix, which do not increase habitat quality. Contrary to received wisdom, afforestation can also be damaging in terms of erosion, water retention and carbon storage. For example, the replacement of native Mediterranean scrub with pine or Eucalyptus plantations usually has a net negative impact on soil, water and fire risk as well as on biodiversity[68]. Unfortunately, in several RDPs there is no clear provision about the species that can be used.

Afforestation should be based on an ecological assessment of needs, rather than on a blanket assumption that planting trees is desirable per se. In regions where forest cover is already high (and often naturally expanding) such measures are usually not compatible with the environmental priorities of Axis 2. A number of examples have been highlighted of forestry investments being negative for biodiversity.

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No clear environmental objectives and lack of proper environmental safeguards

Latvia

223 - First afforestation of non-agricultural land

Afforestation of non-agricultural land could diminish the biological diversity of open farmland habitats and species.

67. The maximum payment for this measure is 200 €/ha per year. In the case of a 7-year contract, the overall cost of the commitment could come to 1400 €/ha. In many cases, this amount is equivalent or exceeds the price of 1 ha of forest land.
68. For a review on the environmental impacts of Eucalyptus plantations in the Portugal and Spain see Veiras (2007): http://www.cospesnaterra.info/index.php?option=com_content&task=view&id=110 (accessed in March 2009).

This is because the majority of such land comprises abandoned former agricultural land, primarily grassland, and some agricultural land that is not classified as such. A further increase in the forested area (currently at least 45.2% of Latvia) may therefore happen at the expense of dispersed farmland bird populations that are still common in Latvia but have undergone severe decline in western Europe[69]. Forest is also naturally expanding in Latvia, and natural reforestation of abandoned land proceeds quickly with no need for afforestation projects. Conversely, maintaining open landscapes is a key concern for biodiversity.

Spain (Extremadura)

221 - First afforestation of agricultural land

223 - First afforestation of non-agricultural land

Although afforestation projects will undergo environmental impact assessment, no safeguard is set to avoid loss of permanent grassland. Conversely, priority for afforestation on "non-agricultural" land is given to marginal pasture and abandoned land undergoing natural regeneration. In most cases, afforestation would result in net biodiversity loss and damage to threatened species. Afforestation measures in Extremadura could have been used positively, for example for the restoration (with native species) of areas damaged in the past by the planting of Eucalyptus and exotic pine plantations.

UK (Scotland)

221 - First afforestation of agricultural land

The impact on biodiversity depends on the levels of planning attached. EIAs are required for any large scale afforestation; however this is not always well enforced. Afforestation measures should also have suitable planning included. Forestry funded with public money should comply with the UK Woodland Assurance Standard (UKWAS), which provides certification up to FSC standard. However, at the moment, this is not required for afforestation projects.

Cyprus

221 - First afforestation of agricultural land

222 - First establishment of agroforestry systems on agricultural land

223 - First afforestation of non-agricultural land

Afforestation of agricultural land does not include sufficient safeguards for HNV farmland areas. Also, afforestation on non-agricultural land fails to provide sufficient safeguards for valuable habitats. For example, planting is encouraged on "bare areas, or areas with less than 10% tree cover". This could encourage planting of pines on phrygana habitat, important for the Stone curlew (*Burhinus oedicnemus*) and other threatened species. First establishment of agroforestry systems supports the plantation of windbreaks. However, the species permitted for planting under the scheme include both native (*Cypress* and *Tamarix*) and introduced species (*Casuarina, Tetraclinis, Myoporum spp*), which could even hamper biodiversity conservation.

Hungary

221 - First afforestation of agricultural land

The RDP contains a target to convert to forest 3000 ha of grassland and 67.700 ha of arable land. General safeguards are set for Natura 2000 sites. Most afforestation support is likely to be spent on the plantation of Black locust (*Robinia pseudoacacia*) stands on the Great Hungarian Plain. This species is non-indigenous in Hungary and has many adverse effects on the environment. It is invasive, spreads rapidly and is very difficult to eliminate (Figeczky 2008).

4.12 Upgrading of rural heritage (323)

This measure has been designed to support a potentially wide range of projects concerning the rural heritage in general. There is a considerable potential to fund large scale projects for nature conservation, including ecological restoration, landscape-scale ecological infrastructure, studies and plans etc.

Nature restoration projects, including the purchase of land by nature conservation public authorities and NGOs, should be explicitly included in the list of supported operations (see section 4.10). These projects are the most efficient (in use of public money) and effective tool to secure land for nature conservation in the long term, if little or no ongoing management is required and ecological dynamics need to be restored. The most obvious examples are river basins and forests, but grasslands and landscape mosaics can also be restored by setting aside large portions of continuous land and reintroducing wild grazers (Sutherland 2004).

Probably one of the most common actions supported under this measure is the preparation of management plans for Natura 2000 sites.

69. Including priority species such as Corncrake and Red-backed shrike, feeding Lesser spotted eagle and White stork (Birds Directive Annex I) and other non-Annex I species with large EU populations in Latvia or SPEC2-3 status, or declining European populations, like Whinchat and Skylark.

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Financing Natura 2000 management plans and other actions for nature conservation

Spain (Extremadura)

Activities eligible for support include: preparation of management plans for Natura 2000 sites, projects for supporting endangered species (including reintroduction), managing and gathering information on biodiversity, restoration of traditional pathways for transhumance, environmental restoration of degraded areas, surveillance in protected areas etc.

Germany (Schleswig-Holstein)

The following activities can be supported:

- Management plans for Natura 2000 sites and others by offices, authorities, associations and foundations;
- Nature conservation investments outside land consolidation;
- Nature conservation investments as part of land consolidation.

However, if minimum criteria for the Natura 2000 management plans are lacking or inadequate in the description of the measure or in relevant national legislation, there will be no guarantee of the quality of the outcome.

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Preparation of Natura 2000 management plans is supported, but their quality is poor

Austria

There are no figures on how much funds within this measure would be spent on management plans, and this cannot be accurately estimated. However, management plans usually do not meet some basic requirements, e.g. lack of quantitative conservation targets, vague management prescriptions that cannot be directly translated into practice, no national coordination of management plans. As a result, plans can be quite useless, with little value for the money spent.

4.13 Leader (Axis 4)

The Leader approach, often presented as a "horizontal" axis within RD, is a tool with very high potential for delivering environmental outcomes. It allows for pooling together different schemes from across the axes into a coherent local project drawn by local stakeholders and authorities. This approach could be particularly useful, for example, for the management of Natura 2000 sites and other protected areas. It could allow the involvement of local stakeholders in site conservation and tailor-made solutions bringing together different types of investments. For example, in a site characterised by extensive wet meadows, a local development strategy could provide agri-environment schemes for habitat management, investments in machinery for mowing or fencing for livestock management, development of visitor facilities to provide complementary income for farmers, training in sustainable management, investment in meeting standards and labelling of local products linked to the grazing and mowing activities needed for the conservation of local biodiversity.
Unfortunately, such examples have been uncommon in the past programming period.

Several problems are undermining the potential of Leader as a tool for biodiversity conservation and environmental improvement in general:

- The need to ensure that enough environmental capacity is present in Local Action Groups (Swales et al. 2006). In most cases there is no requirement in the RDPs to involve environmental NGOs or authorities in the LAGs. This inevitably leads to most projects more or less ignoring the environment, particularly biodiversity;
- In several RDPs[70], Leader has been limited to Measures 411 and 413, which focus on Axis 1 and Axis 3 objectives respectively, while Measure 412, which focuses on Axis 2 objectives, has been excluded. Under these conditions, it can be extremely difficult to use Leader to overcome the divergence of the three axes and to use Axes 1 and 3 creatively to support biodiversity;
- Leader measures often are not subject to any explicit environmental safeguards, even when the same kinds of projects are subject to safeguards under Axes 1 and 3.

70. France (Guadeloupe, Réunion), Germany (Baden-Württemberg, Bavaria, Lower Saxony-Bremen, Sachsen-Anhalt), Greece, Italy (Bolzano, Marche, Toscana, Trento, Umbria, Valle d'Aosta, Sardegna, Puglia, Sicilia), Lithuania, Poland, Portugal (Açores, Mainland), Spain (Aragón, Asturias, Baleares, Canarias, Castilla-La Mancha, Catalunya, Extremadura, Madrid, Murcia, País Vasco), UK (England). In Austria, Measure 412 has been included, but the only eligible operations are restructuring forestry potential and introducing prevention actions, which will harm forest wildlife (see section 5.4).

5. National envelopes

Article 69 of Council Regulation (EC) No 1782/2003 established the option for Member States to divert up to 10% of the national ceiling for any sector of Pillar 1 payments into national envelopes which could be "granted for specific types of farming which are important for the protection or enhancement of the environment or for improving the quality and marketing of agricultural products".

Article 69 is presently used in only 8 Member States[71]. Although national envelopes could have been indirectly beneficial for biodiversity (e.g. by supporting extensive systems), nothing has been explicitly done to target HNV farming or to pursue clear environmental objectives.

Limited incidental benefits for biodiversity

Finland

Support has been provided for beef cattle and winter cereals. Cattle breeding is economically fragile in Finland, and maintenance of unimproved grassland is crucial for biodiversity. However, support has not been tailored to target only the extensive, grassland-based livestock systems. Such support would be mostly needed in the south of the country, where arable systems prevail.

Winter cropping (rye, turnips etc) is a traditional practice in the boreal region, pushed out by more competitive spring barley. In this sense, the support contributes to crop diversity, protects soil from erosion and can be beneficial for biodiversity through providing winter cover and food. In particular, rye is a highly valuable crop in the boreal region also as a breeding habitat, since it has a less dense structure than that of spring cereals, requires less chemical inputs and supports some rare weed species.

Italy

Considerable use of art. 69 has been made, but mainly for product quality and limited environmental objectives. An example is the beef cattle premium linked to a maximum livestock density (1.4 LU/ha, where at least 50% of the surface is permanent pasture); this could benefit biodiversity.

UK (Scotland)

Article 69 is used for a headage based beef cattle subsidy. Although not exclusively targeting environmental objectives, this support scheme may have some potential benefits in providing an additional indirect incentive to maintain unimproved grassland. However, this tool is highly ineffective in maintaining HNV grazing systems, as the only concession made is that payments are proportionally higher for smaller farms – no more conditions are set, e.g. on maximum and minimum livestock densities.

Greece

Art 69 has been used for the quality and marketing of a range of agricultural products, rather than for environmental objectives. Therefore, the value for biodiversity has been negligible. Only in the olive sector has support been provided, although not exclusively for organic certification.

The CAP "Health Check" of 2008 made a number of changes to this provision, which is now contained in Article 68 of Council Regulation (EC) No 73/2009. The broad effect of the changes is to remove the sectoral restrictions contained within the original article, whilst simultaneously reducing the ceiling for most payments under this article to 3.5% of the total Pillar 1 allowance. This tool could be used for a number of purposes, including among others:

- specific types of farming which are important for the environment;
- improving the quality or marketing of agricultural products
- enhanced animal welfare standards;
- specific agricultural activities entailing additional agri-environment benefits;
- addressing environmental disadvantages in some sectors (dairy, beef & veal, sheep & goat, rice).

Despite the potential synergies with some objectives of the RD policy, the mechanisms behind the use of national envelopes mostly belong to CAP's Pillar 1, and show some structural weaknesses for targeting biodiversity:

- objectives are not well-defined;
- measures do not arise from an analysis of needs and are not framed within a strategic approach;
- there is no provision to set up a monitoring and evaluation system;
- the approval process at EU level is limited to only some measures;
- measures are not defined in partnership with stakeholders
- the contractual basis is unclear;
- there is no national or private co-financing.

71. Finland, Greece, Italy, Portugal, Slovenia, Spain, Sweden and UK (Scotland).

Art. 68 represents a flexible tool that could, depending on what farming systems and practices are supported, either harm or benefit biodiversity and the broader environment. France is the first Member State to have announced how it will use the new Art. 68.

Opportunities provided by Art. 68 are being missed

France

It will target "fragile productions", "sustainable farming" and "risk management". Budget allocation seems to be as follows (€422.6 million, i.e. 5% of national allocation):

- €135m headage payment for sheep and goats;
- €100m crop insurance support;
- €50m support to organic farming (post conversion);
- €45m per litre production subsidy for milk in mountain areas;
- €40m support to protein crops;
- €40m sanitary fund establishment;
- €8m support to durum wheat production in traditional area;
- €4.6m suckler calf headage payment.

Most of these support tools would not be targeting environmentally-friendly management. The exception is support to organic farming. The support to mountain dairy production and sheep and goats might indirectly help maintain HNV grazing systems, but its real outcome is extremely unpredictable since subsidy is attached to production rather than to the management system and does not exclude intensive livestock systems that can be environmentally harmful, even in mountain areas.

This first example suggests that Member States are missing the opportunity to shift at least a minimum part of Pillar 1 support towards HNV farming systems. However there is scope to use Art. 68 in an environmentally sensible way by supporting the following systems that can broadly benefit biodiversity:

- Organic farming in specific sectors;
- Grassland-based extensive livestock systems (with appropriate maximum and minimum stocking densities, rules about mixed grazing, and additional incentives for transhumance);
- Traditional old fruit, nut, olive orchards and agro-forestry systems (with appropriate maximum tree density and restrictions on use of pesticides, soil management, irrigation);
- Dry arable systems (with minimum length of crop rotation, minimum fallow land and restrictions on use of pesticides);
- Wildlife-friendly rice paddies (with restrictions on use of pesticides and appropriate management of water level).

These farming systems are all characterised as High Nature Value, suffer from low economic competitiveness and are at risk of abandonment or conversion to intensive (but environmentally harmful) farming practices. In many cases it can be difficult to support such systems through RD agri-environment payments as the calculation of premia is limited to additional cost and income foregone - hence limiting the scope to support traditional management which is intrinsically beneficial for the environment. Therefore, Art. 68 could have a temporary role before the legislative baseline of RD is improved, and while the largest part of CAP funds still remains in Pillar 1.

6. Summary of findings and recommendations

The survey depicts a very complex situation, with wide variation among Member States in the effectiveness of spending and attention to the environment. High-quality schemes addressing biodiversity, alongside potentially damaging or wasteful measures, can be found in virtually all measures and all RDPs. The presence of many well-designed schemes clearly demonstrates the potential of the RD framework to operate as an effective conservation toolbox capable of addressing land management issues that are at the core of the biodiversity crisis, and relevant for the water and climate crises. On the other hand, it is disheartening to see how much of the funding is being spent on environmentally harmful activities or as income support without clear delivery of public goods. This situation is unacceptable in the context of the objectives of EU Rural Development policy.

The main findings and related recommendations have been summarised under the two headings of the RD programming process and RD measures. The box to the right of each recommendation shows the timescale in relation to the RD programming cycle. All recommendations require action both on the part of the Commission (and other EU institutions) and Member States; Member States will need to take the lead, with Commission support, coordination and approval in respect of recommendations requiring action in the current programming period. The Commission will need to take the lead, in consultation with Member States, in making enhancements to the framework for the next period.

6.1 The RD programming process

1. Strategic approach has not been carried through to national or regional level.

   In most cases, national strategies, Strategic Environmental Assessment (SEA) and ex ante evaluation have been drafted after taking the decisions about budget allocation and design of measures. Even the best schemes often seem to be used outside a coherent, country-wide conservation strategy – consequently they are little more than lists of good ideas without a strategic context.

Recommendation 1: RDPs should clearly demonstrate how measures correspond to stated strategic objectives and additional rules should be included in the programming process to ensure coherence along the whole chain from the overarching EU objectives to individual schemes.	Next programming period

2. Stakeholder engagement has improved as a result of the RDP process.

   The consultation process has seen a significant improvement on past practice in a majority of Member States. However, the overall picture is still one of a very poor consultation culture across Europe; only in a handful of countries/regions can the partnership principle be considered as implemented in a significant way.

Recommendation 2: More explicit and detailed rules are needed to ensure that programming, monitoring, assessment and scheme improvement are undertaken in real consultation and co-operation with all relevant stakeholders, including environmental NGOs.	Next programming period

3. Monitoring and assessment is poor in most Member States.

   Uptake is still the main tool used to assess effectiveness of measures, often with perverse results. Field monitoring of the environmental impacts of spending is rare, and in most Member States delays are affecting the implementation of the Common Monitoring and Evaluation Framework, especially concerning impact indicators.

Recommendation 3a: Effectiveness of all spending should be regularly and meaningfully monitored using success indicators based on measurement of impacts; the level of uptake of voluntary schemes should no longer be considered a success indicator.	Current programming period

Recommendation 3b: Mechanisms need to be established to require and enable schemes to be regularly reviewed and improved in the light of results.	Next programming period

4. Conflicting objectives and lack of synergy between and within axes and measures.

One of the major problems identified is the coexistence of actions with conflicting objectives even within the same measure, and the lack of attempts to build synergy between measures, especially across the different axes. Most Member States seem to treat Axis 1 as a purely economic investment, with Axis 2 often being called into play to mitigate the damage done by Axis 1. While some Axis 1 and 3 measures do support biodiversity conservation, there are very few examples of a coherent effort to weave measures from across the axes into "packages" that can support particular habitats or HNV systems, while creating business opportunities and improving the quality of life in rural areas. This is unfortunately the case even with a significant proportion of the Leader spending.

Recommendation 4: Rules should be established to ensure coherence and synergy across axes and measures, as well as full accountability of spending. Mechanisms should be defined to build win-win-win packages of measures for environment, business and quality of life. Provisions should be introduced to ensure that sufficient environmental capacity is included in LAGs.	Next programming period

6.2 The RD measures

5. Targeted spending for biodiversity and other environmental needs.

The main measures that are capable of directly targeting biodiversity are 213 (Natura 2000 – farmland), 214 (Agri-environment), 216 (Non-productive investments – farmland), 224 (Natura 2000 – forest), 225 (Forest environment), 227 (Non-productive investments – forest), and 323 (Conservation and upgrading of rural heritage). However, effectiveness depends on the detail of the measures and varies considerably. The allocation of substantial funding to agri-environment schemes does not guarantee that these funds are either targeted at environmental needs, or that they are targeted effectively. A large proportion of Axis 2 funding is being used as untargeted income support, with negligible environmental benefit. This is the case with virtually all LFA spending and with most of the "broad and shallow" or "light green" AE established by many Member States. This poorly-targeted spending starves effective schemes of scarce funding. This is compounded by the widespread choice to favour spending on ineffective schemes. The general lack of schemes to address key habitats and species is of particular concern.

Recommendation 5a: Sufficient budget should be clearly ring-fenced for schemes targeting wildlife conservation.	Current programming period

Recommendation 5b: Environmentally meaningful eligibility rules, targeting HNV farming systems, should be applied to LFA measures.	Current programming period

Recommendation 5c: Axis 2 area-based schemes should be explicitly designed to address defined environmental needs and result-oriented in their implementation. Commitments should be fully verifiable, and options providing income support without measurable environmental benefits should be stopped.	Current programming period

Recommendation 5d: More well-designed AE schemes for wildlife conservation are needed, including: 1. New targeted schemes to provide environmental set aside options that can compensate for the loss of mandatory set aside and restore habitat quality in intensive arable landscapes. 2. Targeted schemes to address the most common conservation needs of Natura 2000 sites in countries and regions where the state of management plans and RD budget allocation do not allow for proper use of Natura 2000 compensatory payments.	Current programming period

Recommendation 5e: AE payments for organic farming should be significantly higher than those for other less demanding schemes. Organic farming certification should be given priority among food quality schemes.	Current programming period

Recommendation 5f: Non-productive investments in farmland should be further promoted and linked to AE options providing compensation for management costs and income foregone. Productive investments should be supported only under Axis 1 and Axis 3 measures.	Current programming period

Recommendation 5g: Additional funding is needed for forest environment and non-productive investments in forest, aiming to improve species and structural diversity of stands and restore natural dynamics.	Current programming period

Recommendation 5h: Delivery systems for AE schemes should be designed in relation to the specific objectives of the schemes. This should include, where appropriate, more use of competitive bidding, payment-by-result and other mechanisms that increase the effectiveness of spending. In other cases, efforts should be dedicated to reach all relevant land manager groups, if their involvement is critical for the achievement of well-defined environmental objectives.	Next programming period

6. Funding for Natura 2000.

Although RD is supposed to deliver the bulk of the EU funding for the management of the Natura 2000 network, only minimal funding has actually been earmarked for this purpose. Natura 2000 compensatory payments are available only in a minority of RDPs, while the potential of measure 323 (Conservation and upgrading of the rural heritage) for nature conservation is largely unexploited.

Recommendation 6a: The preparation of robust and detailed management plans for Natura 2000 sites should be actively supported through measure 323.	Current programming period

Recommendation 6b: Nature restoration projects, including the purchase of land by nature conservation bodies and NGOs, should be supported through measure 323, and sufficient funding should be ring-fenced for this purpose.	Current programming period

Recommendation 6c: Significant funding should be shifted to either Natura 2000 payments or well designed and targeted agri-environment schemes specifically tailored for the management of Natura 2000 sites.	Current programming period

7. Investments in physical capital.

Measures 121 (farm modernisation), 122 (forestry modernisation), 125 (infrastructure), 226 (forestry prevention actions) and 311 (diversification) are most frequently cited as directly negative for biodiversity. Safeguards are often lacking and almost never watertight. There is a widespread bias toward environmentally harmful operations (e.g. intensification of wood extraction, pesticide treatments, expansion of irrigation, drainage and roads), as opposed to IT, marketing, on-farm processing, composting, wastewater treatment,

increased efficiency in use of inputs (energy, water, fertilisers, pesticides), enhancing ecological stability, sustainable development of renewable energies etc.

Recommendation 7a: Win-win investments benefiting both business and the environment should be given priority through the relevant assessment mechanisms.	Current programming period

Recommendation 7b: More robust, explicit and detailed environmental safeguards should be attached to measures supporting investment in physical capital in agriculture and forestry across all rural development axes.	Current programming period

Recommendation 7c: Strong EU-wide environmental safeguards should be adopted, and translated at national and local levels, to prevent public spending from undermining environmental objectives. Managing authorities should be made much more accountable for the quality of spending and for the achievement of planned results	Next programming period

Recommendation 7d: In Leader, priority should be given to Local Development Strategies entailing the appropriate management of Natura 2000 sites and engagement of stakeholders.	Current programming period

8. Afforestation

Positive or negative impacts of afforestation measures (221, 222 and 223) depend on the environmental context and scheme design. In heavily forested regions, any further encroachment of forest onto other habitats is likely to be negative for biodiversity. On the other hand, in less forested areas, carefully implemented afforestation measures can benefit wildlife. While afforestation has a high potential for the restoration of native forest ecosystems, it is often used to promote plantations of alien species or varieties, and destruction of other habitats (e.g. "unproductive" grassland and scrubland, wetland, extensive arable systems).

Recommendation 8: Admissible species and design of afforestation schemes should primarily aim at restoring natural forest ecosystems and HNV agro-forestry systems. Valuable habitats for biodiversity should not be damaged by these projects.	Current programming period

9. Training, information and advisory services

These schemes represent a major missed opportunity. Examples are seen where these measures are implemented to complement and support effective AE and forest-environment schemes, and play an important role in encouraging uptake and appropriate delivery of relevant measures. However very little has been done in most Member States to provide farmers with effective training and advice on biodiversity conservation and on environmental issues in general. This is a significant factor in reducing the uptake of biodiversity-friendly measures and in decreasing the effectiveness of schemes that are deployed.

Recommendation 9: Training, information activities and advisory services should be implemented to support Axis 2 measures, and resources for this purpose must be clearly ring-fenced.	Current programming period

10. Article 68 (national envelopes)

Art. 68 represents a flexible tool that could, depending on what farming systems and practices are supported, either harm or benefit biodiversity. The first example of implementation of Art. 68 suggests that Member States are missing the opportunity to shift at least a minimum part of Pillar 1 support towards HNV farming systems.

Recommendation 10: Art. 68 should be used to support farming systems that can broadly benefit biodiversity. This tool could have a temporary role before the legislative baseline of RD is improved, and while the largest part of CAP funds still remains in Pillar 1.	Current programming period

6.3 Conclusions

The key strengths of Rural Development should be carried forward as the framework for the CAP beyond the current programming period:

- well-defined objectives;
- strategic approach to programming;
- partnership principle;
- approval by the European Commission;
- Common Monitoring and Evaluation Framework;
- contractual basis;
- co-financing.

In the shorter term, a critical analysis of the quality of spending and its impact is essential if RD policy is to deliver its full potential. While the "Health Check" has been a missed opportunity to put the CAP on a new track, ahead of the debate on the EU Budget review, options remain open to give a more solid base to the most defensible part of the CAP. The focus on the "new challenges" should be used to drive additional funding towards the environment and the provision of public goods. In addition, the modification of RDPs offers a unique opportunity to support new operations, improve existing schemes, set adequate environmental safeguards for potentially harmful measures, and to review the balance of incentives created by the financial allocations to the various measures.

7. Glossary

AE	Agri-environment
CAP	Common Agricultural Policy of the European Union
EAFRD	European Agricultural Fund for Rural Development
EIA	Environmental Impact Assessment
FBI	Farmland Bird Index
FSC	Forest Stewardship Council
HNV	High Nature Value
LAG	Local Action Group
LFA	Less Favoured Area
LU	Livestock Units
PDO	Protected Designations of Origin
RD	Rural Development
RDP	Rural Development Programme
SEA	Strategic Environmental Assessment
UAA	Utilised Agricultural Area
TAA	Total Agricultural Area
WFD	Water Framework Directive

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Annex 1. List of rural development measures[72]

Axis 1. Improving the competitiveness of the agricultural and forestry sector

(111) vocational training, information actions, including diffusion of scientific knowledge and innovative practices for persons engaged in the agricultural, food and forestry sectors;
(112) setting up of young farmers;
(113) early retirement of farmers and farm workers;
(114) use by farmers and forest holders of advisory services;
(115) setting up of farm management, farm relief and farm advisory services, as well as forestry advisory services;
(121) farm modernisation;
(122) improving the economic value of the forest;
(123) adding value to agricultural and forestry products;
(124) co-operation for development of new products, processes and technologies in the agricultural and food sector;
(125) improving and developing infrastructure related to the development and adaptation of agriculture and forestry;
(126) restoring agricultural production potential damaged by natural disasters and introducing appropriate prevention actions;
(131) helping farmers to adapt to demanding standards based on Community legislation;
(132) supporting farmers who participate in food quality schemes;
(133) supporting producer groups for information and promotion activities for products under food quality schemes;
(141) supporting semi-subsistence farms undergoing restructuring;
(142) setting up of producer groups;

Axis 2. Improving the environment and the countryside

(211) natural handicap payments to farmers in mountain areas;
(212) payments to farmers in areas with handicaps, other than mountain areas;
(213) Natura 2000 payments and payments linked to Directive 2000/60/EC;
(214) agri-environment payments;
(215) animal welfare payments;
(216) support for non-productive investments;
(221) first afforestation of agricultural land;
(222) first establishment of agroforestry systems on agricultural land;
(223) first afforestation of non-agricultural land;
(224) Natura 2000 payments;
(225) forest environment payments;
(226) restoring forestry potential and introducing prevention actions;
(227) support for non-productive investments;

Axis 3. The quality of life in rural areas and diversification of the rural economy

(311) diversification into non-agricultural activities;
(312) support for the creation and development of micro-enterprises;
(313) encouragement of tourism activities;
(321) basic services for the economy and rural population;
(322) village renewal and development;
(323) conservation and upgrading of the rural heritage;
(331) training and information for economic actors operating in the fields covered by Axis 3;
(341) skills acquisition and animation with a view to preparing and implementing a local development strategy;

Axis 4. Leader

(41) local development strategies;
(411) competitiveness;
(412) environment/land management;
(413) quality of life/diversification;
(421) transnational and inter-regional co-operation;
(431) running the local action group, skills acquisition, animation;

(511) technical assistance.

72. Commission Regulation (EC) No 1974/2006.

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