

# **Farmland birds and agri-environment schemes in the New Member States**

A Report for the RSPB

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in association with

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## Glossary

Annex 1 birds	Species which are the subject of special habitat conservation measures under Article 4.1 of the Birds Directive
Axis 1	EAFRD rural development support for improving the competitiveness of the agriculture and forestry sector
Axis 2	EAFRD rural development support for improving the environment and the countryside
Axis 3	EAFRD rural development support for improving the quality of life in rural areas and diversification of the rural economy
Axis 4	EAFRD rural development support for Leader
CAP	Common Agricultural Policy
EAFRD	European Agricultural Fund for Rural Development (Council Regulation 1698/2005)
IBA	Important Bird Area
LFA	Less Favoured Area
Natura 2000	European Union network of sites designated by Member States under the Birds Directive and Habitats Directive.
NMS	New Member State
PECBMS	Pan European Common Bird Monitoring Scheme, a partnership involving the European Bird Census Council, the Royal Society for the Protection of Birds, BirdLife International and Statistics Netherlands that aims to deliver policy relevant biodiversity indicators for Europe.
RSPB	Royal Society for the Protection of Birds
SPA	Special Protection Area designated under the Birds Directive

## **Executive Summary**

# 1 Introduction to the Study

## 1.1 Objectives

This study is a review of the contribution of existing and planned agri-environment schemes to the management of farmland habitats for birds in nine of the new Member States - Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia. It has been commissioned by the RSPB and is intended to contribute to the design and implementation of effective agri-environment measures in the 2007-13 rural development programmes.

BirdLife International and RSPB have selected 20 species of farmland birds, on the basis of their distribution and needs across the New Member States, and have argued that they should be targeted by agri-environment schemes (and other measures) in the 2007-13 rural development programmes. These birds depend on agricultural land as their primary breeding and/or feeding areas and are all protected under Annex 1 of the Birds Directive, most of them are of 'unfavourable conservation status' in Europe and six are also threatened globally. The nine New Member States have just over one fifth of the agricultural land in the EU<sup>1</sup> but are home to a very much larger proportion of many of these target species - more than 90% of the EU25 population in the case of the Corncrake, Aquatic Warbler, Imperial Eagle and Lesser Spotted Eagle (see Table \*\*).

These Annex 1 farmland birds are associated with the low intensity farming systems which survived (or replaced) the intensively managed collective and state farms, and many of them are not confined to Natura 2000 protected sites but depend on much wider areas of ordinary farmland now facing major changes, as agricultural structures and farm management systems adjust to the opportunities and demands of EU membership. Achieving positive conservation status for these important birds depends on effective management of farmland for their benefit - this will be a major challenge for agri-environment schemes in 2007-13.

The study, undertaken in the Summer of 2006, attempts to answer four questions about the new 2007-13 rural development programmes in the nine New Member States:

*Are bird conservation priorities adequately addressed in the **objectives**, targeting and funding of the RDP?*

*Is the **design** of agri-environment schemes and measures fit for the purpose of safeguarding and managing farmland habitats for bird conservation priorities?*

*What are the barriers to **delivery** of appropriate, targeted and effective agri-environment measures where they are needed for bird conservation priorities?*

*What is the **contribution of other CAP policies** to the delivery of effective agri-environment schemes for bird conservation?*

## 1.2 Methodology

A significant part of the information needed to answer these and the more detailed questions in the brief has not been published and the proposed EAFRD measures 2007-13 were still being developed during the course of the study. The review has been a desk study using published information (where available) and up to date information (Summer 2006) gathered by local experts familiar with bird conservation and agri-environment schemes in each of the Member States. A systematic approach was used, with structured questionnaires and guidance notes) to collect two sets of data for each of the nine Member States. The first set of data was collected from local ornithological experts involved in giving advice to government on conservation of farmland birds and their habitats. The second set of data came from local

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<sup>1</sup> Utilised Agricultural Area, source: European Commission DGAgri *Agriculture in the EU Statistical and Economic Information 2005*

agri-environment experts familiar with both policy and implementation of agri-environment schemes in the Member State, who came from a variety of backgrounds - academics, independent consultants and non-governmental organisations.

## 2 Background to EU Policy Implementation in the New Member States

### 2.1 Farm structures and institutional and political priorities

The social, institutional and political context for implementing the first RDPs in 2004 in the New Member States (NMS), and the scale and nature of the rural development problems they faced, were very different from those in the older Member States in 1992 when agri-environment schemes first became compulsory. The NMS had seen the collapse of the intensive large scale farming systems of the Soviet era which led in some areas to large scale rural unemployment, increasing reliance on semi-subsistence farming and lack of investment in rural infrastructure and services. Traditional markets were no longer available and livestock numbers dropped dramatically during the 1990s, leading to the deterioration of large areas of grazed semi-natural habitats and abandonment of the more marginal land. In many countries the use of agricultural inputs decreased markedly at the same time, because most farmers could not afford them, and there was also a lack of capital investment, for example in manure handling and machinery. The lengthy process of land restitution had not been fully completed in 2004 and many of the new owners of small areas of farmland lived in towns and cities. There were other less obvious effects of 45 years of state agriculture, which have had an impact on the design and delivery of agri-environment schemes. For example in Estonia a generation of farmers were unfamiliar with the use of crop rotations or mixed farming systems and the agricultural universities had trained farm advisers in either animal production or crop husbandry but not both. Elsewhere, mixed traditional farming systems have survived to a much greater extent (for example in southern and eastern parts of Poland and in Slovenia), to the benefit of both biodiversity and farmland birds, but young farmers understandably have little interest in working small scattered plots by hand, using farming systems unlikely to meet EU animal welfare and food hygiene regulations and unable to market enough produce to make a living.

The scale and nature of these social, economic and agricultural problems has meant that there is, in many countries, considerable political pressure to divert agri-environment funding to other priorities or to use it in a way which brings secondary economic benefits - for example to improve soil quality or support organic farming. The drive to improve the agricultural economy is also seen in the priorities of the advisory and delivery services (which give little emphasis to biodiversity) and of course, not surprisingly, in the response of farmers who choose those agri-environment measures which provide reasonable levels of payment but require relatively little change to the intensity of their farming methods or improve productivity (e.g. winter cover crops ploughed in as green manure).

In the next programming period there will be new pressures on the farmed environment and on the priorities for rural development programmes. Farmers will be more able to invest in intensification, and farm incomes in the New Member States are forecast to rise by 42% between 2005 and 2013<sup>2</sup>. There is now considerable pressure to adapt agricultural infrastructure and management to meet EU standards, particularly on water quality and food safety, which will threaten some of the more traditional farming systems of high nature value.

Other factors affecting the environmental impact of agri-environment schemes include high levels of rural unemployment, lack of investment in rural infrastructure, fragmentation of holdings, short-term tenure, small subsistence farms (often of high biodiversity value), difficulties in meeting the requirements of Good Farming Practice, and new animal welfare requirements.

The EAFRD budget was significantly reduced from the Commission's original proposal, as a result of the December 2005 agreement on the EU's Financial Perspectives for 2007-13; it is possible that by 2013 the Pillar 2 budget ceiling will be as much as 12% below the comparable figure for 2006<sup>3</sup>. There will continue to be competition for these limited funds from

<sup>2</sup> European Commission (2006) *Prospects for Agricultural Markets and Income in the European Union 2006-13*

<sup>3</sup> *Agra Europe* (2006) issue 2195 February 17, *EU tables final budget plans for 2007-13*

other EAFRD axes particularly in New Member States seeking to improve infrastructure and agricultural competitiveness using Axis 1 measures. There will also be competition from other measures within Axis 2, as the New Member States seek to raise food standards, protect soils and water resources and capitalise on easily administered schemes targeted at climate change, such as afforestation and energy crops, which are.

Although agri-environment schemes remain compulsory for 2007-13 and there is a requirement to spend at least 25% of EAFRD co-financing on Axis 2, there is no guarantee that existing agri-environment schemes for habitat management will even continue, or will be improved to meet the needs of farmland birds - despite the fact that the Farmland Bird Index is expected to be an impact indicator for Axis 2 in the next programming period.

## **2.2 Experience of agri-environment schemes before 2004**

Only a few Member States had their own national agri-environment schemes prior to EU accession, but a Dutch-funded project in 1997-2000 brought together partners from nine of the NMS to help to build capacity among policy staff and NGOs in the development of agri-environment schemes, leading to a number of pilot projects in the early 1990s using EU funds from PHARE or SAPARD, or funding from national sources. Other technical assistance projects helped MoA and other staff to learn from the 15 years' experience (and mistakes) of EU15 countries in developing delivering and evaluating agri-environment schemes. In most of the New Member States there was therefore a core of experienced staff relatively well prepared to design agri-environment schemes for the RDP. Despite this preparation, delays in the implementation of SAPARD agri-environment measures meant that the practical lessons learnt from implementing these on the ground were not available in time for the implementation of the full-scale RDP measures in 2004-06.

## **2.3 Natura 2000 and the EAFRD 2007-13 rural development plans**

Within a year of accession seven of the ten New Member States had designated almost all their Important Bird Areas (IBAs)<sup>4</sup> as Special Protection Areas (SPAs) under the Birds Directive 79/409, covering 15% of their land surface. (Cyprus, Malta and Poland have proposed to designate only about half of their proposed SPAs). This rate of progress is impressive, and much better than in the EU15 Member States where by 2004 only 44% of IBAs had been designated as SPAs and only four countries (Belgium, Denmark, the Netherlands and Luxembourg) had more or less completed their network of SPAs, 25 years after the adoption of the Directive<sup>5</sup>. The extent of designation of SPAs in the New Member States means that it should be easy to target species-specific agri-environment schemes at both protected sites within the Natura 2000 network and at non-designated land which offers opportunities to reinforce the Natura 2000 network (see \*\* below for details of this requirement).

The Birds Directive requires Member States to preserve, maintain or re-establish habitats for Annex 1 birds both inside and outside SPAs<sup>6</sup>. Although EAFRD has specific measures for compensation payments on SPAs and other Natura 2000 land these measures cannot be used until national legislation is in place detailing all the land management restrictions placed on farmers. In Poland and Cyprus the management of Natura 2000 farmland will have to be supported instead by agri-environment schemes until designations are completed - and this will be the case at least initially in several other Member States where the designation process is more or less complete but the legislation will not be enacted until after the start of the 2007-13 programme.

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<sup>4</sup> The Important Bird Areas (IBA) Programme of BirdLife International is a worldwide initiative aimed at identifying and protecting a network of critical sites for the conservation of the world's birds. These sites have been carefully identified on the basis of scientific criteria for the bird numbers and species that they hold. The BirdLife inventories of Important Bird Areas have been recognized four times by the European Court of Justice as the list of sites that should be classified as Special Protection Areas under the Birds Directive in the absence of other scientific evidence. BirdLife published the second revision of IBAs in Europe in 2000.

<sup>5</sup> Birdlife international press release 10-05-2005 *Key bird sites better protected in new EU Member States* [http://www.birdlife.org/news/pr/2005/05/iba\\_launch.html](http://www.birdlife.org/news/pr/2005/05/iba_launch.html)

<sup>6</sup> Article 3 of Council Directive 79/409/EEC on the conservation of wild birds

### 3 Significance of the nine NMS for farmland bird populations

#### 3.1 Farmland birds

The nine New Member States have large populations of farmland birds of both national and European significance, including the majority of the EU25 population of globally threatened species such as Aquatic Warbler, Corncrake, Great Snipe and Imperial Eagle, and of other Annex 1 species in unfavourable conservation status such as White Stork, Lesser Spotted Eagle, Red-footed Falcon, White Stork and Roller. Table \*\* below shows, for each of the nine New Member States, the proportions of the EU25 populations of the Annex 1 farmland birds targeted by BirdLife International for agri-environment support.

A total of 77 species of birds depend on farmland for food, shelter and nesting sites but farmland birds are still in steep decline across Europe, a trend not shared by bird assemblages of other habitats. Across eleven of the EU25 countries for which data were available, farmland bird populations declined on average by more than a third between 1980 and 2002.<sup>7</sup> In the New Member States Although the populations of some farmland birds began to recover in the early 1990s when the intensity of farming dropped following independence, but this trend has begun to change as production intensifies - for example between 2000 and 2003 the farmland bird index declined by 21% in the Czech Republic, 13% in Poland and 3% in Latvia <sup>8</sup>.

#### 3.2 Farmland birds as indicators for 2007-13 Rural Development Plans

Farmland bird populations provide a useful indication of the general state of farmland habitats, since the diversity and abundance of plant and insect species on farmland directly affects the availability of food for birds. In addition, small landscape features such as hedgerows, uncultivated field margins, small woodlands and patches of scrub are important for many species of birds.

The Commission has proposed that one of the common impact indicators for the 207-13 RDPS should be 'reversing biodiversity decline' and the Farmland Bird Index is likely to be a key measure of this, as it is one of the few data sets for groups of species which is available in all Member States.

#### 3.3 Farmland habitats used by birds

There are seven broad categories of agricultural habitats used by birds in the nine New Member States as shown in Table \*\* below, but these are not restricted to IBAs. For many protected species, such as the White Stork, the majority of the population is found outside IBAs, and it is the management of farmed habitats in the wider countryside which will determine the future populations of the 19 bird species which make up the Farmland Bird Index.

**Table 2 Agricultural habitats in Important Bird Areas in nine Member States**

	Total estimated area of farmland within IBAs hectares	Main habitat types in IBAs
<b>Cyprus</b>	27251	mixed traditional farming, steppe and pseudo-steppe, perennial crops, arable, abandoned cropland
<b>Czech Republic</b>	101587	unimproved permanent dry grassland, improved dry grassland, abandoned grassland, wet grassland, perennial crops

<sup>7</sup> European Environment Agency (2006) *Progress towards halting the loss of biodiversity by 2010* Report No 5/2006. Copenhagen.

<sup>8</sup> Eurostat

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996,39140985&\\_dad=portal&\\_schema=PORTAL&screen=detailref&language=en&product=STRIND\\_ENVIRO&root=STRIND\\_ENVIRO/enviro/en073](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,39140985&_dad=portal&_schema=PORTAL&screen=detailref&language=en&product=STRIND_ENVIRO&root=STRIND_ENVIRO/enviro/en073)

<b>Estonia</b>	73205	wet grassland unimproved permanent dry grassland, mixed traditional farming, arable
<b>Hungary</b>	705690	arable, unimproved permanent dry grassland, wet grassland, steppe and pseudo-steppe habitats, mixed traditional farming
<b>Latvia</b>	123100	unimproved permanent dry grassland; wet grassland, arable
<b>Lithuania</b>	138657	mixed traditional farming, wet grassland, abandoned grassland, unimproved permanent dry grassland, improved dry grassland
<b>Poland</b>	1545761	mixed traditional farming, wet grasslands, abandoned grassland and other agricultural areas
<b>Slovakia</b>	332885	unimproved permanent dry grassland, mixed traditional farming, arable, wet grassland
<b>Slovenia</b>	29883	mixed traditional farming, unimproved permanent dry grassland, perennial crops, wet grassland, arable, improved dry grassland
<b>Total</b>	3078019	

More information on farmland birds and the habitats they use can be found Sections \*\* to \*\* below on individual Member States and in Annex 3.

**Table \*\* Conservation status and EU9 populations of 20 Annex 1 birds targeted by BirdLife International and RSPB for agri-environment support 2007-13**

	9 New MS	CY	CZ	EE	HU	LA	LI	PO	SK	SL
% of EU25 farmland (utilised agricultural area) in 2005 <sup>9</sup>	21	<1	2	<1	4	1	2	10	1	<1
<b>Farmland birds - policy status in EU and globally</b>		<b>% of EU25 population<sup>10</sup></b>								
<b>Annex 1 - global conservation concern and unfavourable conservation status in Europe</b>										
<b>Aquatic warbler</b> <i>Acrocephalus paludicola</i>	<b>100</b>				15	<1	8	77		
<b>Corncrake</b> <i>Crex crex</i>	<b>92</b>		1	15	1	24	21	28	1	<1
<b>Great bustard</b> <i>Otis tarda</i>	<b>5</b>		<1		5					<1
<b>Great snipe</b> <i>Gallinago media</i>	<b>60</b>			19		8	8	25		
<b>Imperial eagle</b> <i>Aquila heliaca</i>	<b>98</b>	1	1		58					38
<b>Pygmy cormorant</b> <i>Phalacrocorax pygmeus</i>	<b>9</b>				9					<1
<b>Annex 1 - unfavourable conservation status in Europe</b>										
<b>Collared pratincole</b> <i>Glareola pratincola</i>	<b>1</b>				1					
<b>Lesser grey shrike</b> <i>Lanius minor</i>	<b>48</b>				39		<1	<1	8	<1
<b>Lesser spotted eagle</b> <i>Aquila pomarina</i>	<b>97</b>			6	1	47	12	21	10	<1
<b>Night heron</b> <i>Nycticorax nycticorax</i>	<b>16</b>		2		11			2	1	<1
<b>Purple heron</b> <i>Ardea purpurea</i>	<b>15</b>		<1		14			<1	<1	
<b>Red-footed falcon</b> <i>Falco vespertinus</i>	<b>94</b>			<1	89					5
<b>Roller</b> <i>Coracias garrulus</i>	<b>55</b>	42		1	8	<1	2	2	<1	<1
<b>Squacco heron</b> <i>Ardeola ralloides</i>	<b>14</b>				14					<1
<b>Stone curlew</b> <i>Burhinus oedicephalus</i>	<b>2</b>	1			<1					<1
<b>White stork</b> <i>Ciconia ciconia</i>	<b>73</b>		1	3	5	9	12	41	1	<1
<b>Annex 1 - secure status in Europe</b>										
<b>Barnacle goose</b> <i>Branta leucopsis</i>	<b>2</b>			2						
<b>Griffon vulture</b> <i>Gyps fulvus</i>	<b>&lt;1</b>	<1								
<b>Montagu's harrier</b> <i>Circus pygargus</i>	<b>18</b>		<1	1	1	1	2	13	<1	
<b>Spotted crane</b> <i>Porzana porzana</i>	<b>73</b>		<1	25	5	6	10	25	1	<1

<sup>9</sup> source: European Commission DGAgri *Agriculture in the EU Statistical and Economic Information 2005*

<sup>10</sup> source: BirdLife International (2004) *Birds in Europe: population estimates, trends, and conservation status*, Cambridge, UK: (BirdLife Conservation Series No.12)

## 4 Threats to farmland habitats and opportunities to improve management for biodiversity

This section first examines the two major threats to bird habitats in the New Member States - abandonment and intensification - then looks at five broad types of farmland habitats important for Annex 1 and other birds - arable, mixed traditional farming, wet grassland, dry grasslands and steppes, and perennial crops. For each the threats are summarised, the preferred management outlined and the use of agri-environment measures and other rural development measures discussed briefly. Finally it looks at opportunities to improve the management of farmland generally for birds.

Table \*\* below summarises the threats by habitat type and Member State - more detail can be found in sections \*\* to \*\* on individual Member States.

**Table \*\* Threats to agricultural habitats used by Annex 1 birds**  
(source: questionnaire survey of expert ornithologist in each Member State)

	CY	CZ	EE	HU	LA	LI	PO	SK	SV
<b>arable</b>									
abandonment and scrub			•		•				
afforestation				•	•				
intensification	•	•	•	•	•	•		•	•
higher levels of fertilisers and pesticides				•	•	•		•	•
restoration of neglected drainage systems					•	•			
removal of remnants of natural vegetation	•			•			•	•	
winter cereals, with loss of over wintered stubble		•				•			
fewer crop types, use of monocultures and energy crops				•		•		•	•
unsuitable mowing techniques								•	
burning old growth								•	
<b>Mixed Traditional Farming</b>									
abandonment	•			•			•		
land purchase and consolidation, loss of scale and pattern of mixed habitats	•		•	•	•		•	•	•
removal of remnants of natural vegetation	•						•		
intensification			•	•	•	•	•	•	•
higher levels of fertilisers and pesticides	•					•	•	•	•
afforestation							•		
lack of markets for products of mixed traditional farming				•					
creation of monocultures						•			•
mowing too early						•			
<b>wet grassland</b>									
abandonment and scrub		•	•	•	•	•	•		•
afforestation				•	•	•	•		

drainage		•			•	•	•	•	
conversion to arable						•			•
intensification		•			•		•	•	•
dates of mowing too early, use of inappropriate methods					•	•		•	•
burning old growth	•							•	
flooding		•				•			
negative attitudes to agri-environment management by city dwelling owners						•			
<b>dry grassland and steppe</b>									
abandonment and scrub	•	•	•	•	•	•	•	•	•
intensification	•	•					•	•	
conversion to arable		•		•			•		
earlier mowing or grazing	•	•						•	
overgrazing	•	•						•	
afforestation	•			•			•		
declining numbers of grazing livestock, cost of purchasing livestock				•					
no markets for hay or animals				•					
<b>perennial crops</b>									
intensification	•	•		•					
higher levels of fertilisers and pesticides	•								
loss of remnants of natural vegetation	•								
lack of markets for traditional products				•					
reduction in area of traditionally managed orchards				•					•
<b>loss of small landscape elements</b>	•	•	•	•	•	•	•	•	•

#### 4.1 Abandonment and intensification

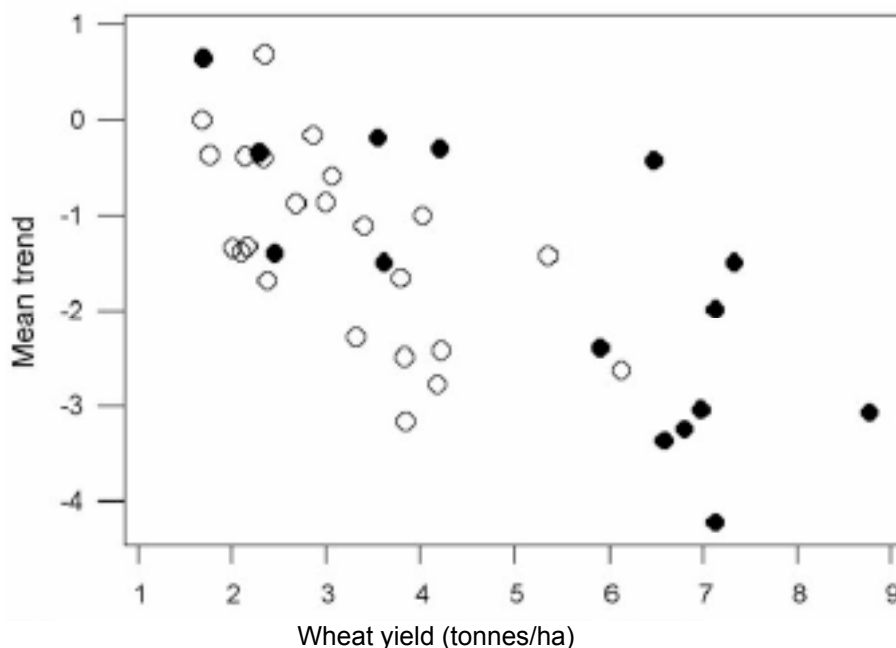
Abandonment and intensification are the two most significant threats to farmland bird habitats in the New Member States and are a result of the continuing adjustments to the huge economic and social impact on the farming sector of the political changes in the 1990s. These adjustments were not completed at the time of accession (for example transfers of land, out migration, foreign investment). Now CAP direct aids and other policies are providing new opportunities and drivers for structural and land management changes, which will continue for some years to come.

##### *Intensification*

The term intensification covers a range of structural and management changes all aimed at increasing the productivity of the land and the farmed unit. Different farming systems and farmers will intensify production in different ways but it may involve increasing stocking rates, field size and the use of machinery and chemicals; changes in the areas of different crops and times of sowing and harvesting; the spread of monocultures; changes in drainage and the loss of small, non-farmed habitats such as uncultivated field margins, ponds and hedgerows. Intensification is a threat to all habitat types used by birds but until it actually happens it is impossible to accurately predict the form it will take.

It has been shown that newly joining Member States tend to support higher bird population densities than countries that have been subject to the CAP for longer<sup>11</sup>, and recent research on farmland bird populations in Europe has shown a significant negative correlation between yield of wheat and trend in farmland bird populations, as illustrated in Figure 1 below<sup>12</sup>.

**Figure \*\* Relationship between mean country trend in populations and yield of wheat for 19 significantly declining farmland species**



( $r_{38} = -0.66$ ,  $P < 0.0001$ ). Filled circles represent EU15 Member States.

Convincing evidence of the causal relationship between agricultural intensification and bird population declines has come from demonstrations that reversing intensification can lead to a rapid recovery in bird populations that had declined following earlier intensification.

#### *Abandonment*

Abandonment of existing farmed habitats can lead to the complete loss of biodiversity rich grasslands, open arable habitats and valued cultural landscapes as management ceases and natural recolonisation by trees and shrubs turns the land into forest. The European Environment Agency identified four main causes of abandonment:

- cessation of management due to low, or even negative, profitability;
- insufficient grazing livestock in pastoral areas to maintain grasslands;
- cessation of management of grasslands and arable land that was purchased for speculative reasons after privatisation of collective or state farms;
- abandonment of farmland due to financial and legal uncertainty or lack of capital for investment.<sup>13</sup>

#### **4.2 Arable land**

Arable farming is important for birds in all the Member States, and is particularly significant in the great plains of Hungary, where and the nine most important IBAs together have a total farmed area of more than a quarter of a million hectares, and it is a major habitat in every

<sup>11</sup> (Sanderson et al., 2006).

<sup>12</sup> Donald PF, Sanderson FJ., Burfield IJ. and van Bommel FPJ. (2006) *Further evidence of continent-wide impacts of agricultural intensification on European farmland birds, 1990–2000* in *Agriculture, Ecosystems and Environment* 116 (2006) 189–196

<sup>13</sup> Ref..37

IBA<sup>14</sup>. In other Member States arable land is less significant in terms of total area or proportion of farmland habitats but still important for many birds (particularly raptors) and as a source of food at times of the year when other food may be scarce. The range of arable habitats varies widely, from relatively intensive production of cereals, fodder crops, root crops and potatoes, sometimes in large fields, to arable crops grown more traditionally in rotation with fallow and grassland in mosaics, which retain remnants of natural vegetation between the fields.

**Habitat management for Great bustard *Otis tarda***

Great Bustards are generally faithful to particular nesting sites and if lost from a breeding area are unlikely to return, so it is particularly important to safeguard existing habitats. They require open, undisturbed habitat with medium height vegetation (<1 m) which is tall enough to provide cover, but allows the female to look around. It benefits from crop variety and its preferred food changes seasonally from green parts of crops and weeds in winter and spring, to insects in summer and seeds in the autumn. It uses grasslands, first year fallow, older fallow, extensive arable fields for breeding, and rape, kale and alfalfa for wintering. Reduction in the area of leguminous crops/alfalfa/oilseed rape and high levels of pesticide and fertilizer use will limit the food supply. Lack of disturbance is particularly important at the leks (display grounds) and at wintering places.

*Threats to arable habitats*

Intensification of arable production is perceived as a significant threat in all Member States, leading to increases in monocultures, the use of fertilisers, pesticides and mechanisation and loss of the remaining natural vegetation between plots. In Estonia arable land is likely to be lost through abandonment of smaller farms and in Latvia, where arable land has already been abandoned, there are two further threats: firstly gradual re-colonisation by trees and bushes or more rapid and permanent loss of these open habitats through afforestation (possibly funded by EAFRD Axis 2<sup>15</sup>); and secondly, the loss of natural river channels and bankside habitats through re-instating maintenance work on drainage systems which have been neglected for 10-20 years. Afforestation is a current threat in Hungary too.

*Managing arable land for the benefit of birds*

Arable land provides nesting sites for Great Bustard and Collared Pratincole and food such as small mammals, insects and seeds for many birds, including Imperial Eagle and Red-footed Falcon. (See Annex 3 for a list of birds associated with arable land). Several species have very specific requirements (e.g. Great Bustard, see box above) but the requirements for many of the birds using arable land are concerned with improving the availability of food and increasing the variety of both food sources and habitat structure and fall into three groups:

**Maintaining high nature value extensive management where it still exists or reducing the intensity of management** by: adopting organic or low-input arable farming; including fallow in the rotation; retaining stubble for as long as possible (ideally over winter); protecting field margins and other small landscape features and managing them without chemicals.

<sup>14</sup> Total estimated farmland area in the IBAs of (names for 7,8,9,12,14,15,24,26,37) Source BL qre

<sup>15</sup> Further increases in the forested area (currently 45.2% of Latvia) may happen at the expense of relatively common and widely distributed farmland bird populations, including priority species like breeding Corncrake and Red-backed Shrike, feeding Lesser Spotted Eagle and White Stork (all Annex I species) and other non-Annex I species with large EU populations in Latvia and / or SPEC2-3 status, or declining European populations, like Whinchat and Skylark. The afforestation issue is contentious because there have been proposals in the draft Latvian RD programme for 2007-2013 to finance it from Axis 2 to plant an area of between 35 000 - 1 million hectares, using about 5% of all funding available under Axis 2) Source BL qre.

**Reducing the direct effect of farming activities on birds** by: prohibiting stubble burning and night working; delaying spraying and harvest until after mid July; and limiting agricultural activities and access in protection zones around nests (150m for Great bustard *Otis tarda*, 50m<sup>16</sup> for Montagu's harrier *Circus pygargus*, 500m for other raptors).

**Improving the availability of habitats, food supplies and nesting sites** by: leaving a proportion of cereals unharvested (as food for birds and their prey); creating beetle banks in fields; using a variety of crops in the rotation, including pulses; managing grassland in the rotation for the benefit of ground nesting birds (see below); creating grassy field margins and grassy strips 3-5m wide in fields; retaining small landscape features<sup>17</sup>; creating small ponds (for White Stork, which feeds on amphibians); providing perching poles for raptors, and artificial nests and nest boxes for Saker, Red-footed Falcon, Roller and White Stork.

### 4.3 Mixed traditional farming

Farm size and structure vary enormously within most of the New Member States where small, semi-subsistence farms survived alongside the large scale collective and state farms. But in Poland, Slovenia and Cyprus small private farms have always predominated, and they survive in the mountainous parts of other countries too. The typical mix of crops and livestock varies with soils and climate but almost everywhere mixed traditional farming is characterised by small scale production (often uneconomic and/or for home consumption), part-time working, small fields and a complex mosaic of crops, grassland, natural vegetation, unused land, and woodland or scrub. In eastern and southern Poland the arable plots are small and often very narrow and individual farmers may have several scattered plots. In Cyprus, perennial crops and cereals are grown in small fields, often with dry-stone walls, and remnants of scrub are grazed by sheep and goats.

#### **Habitat management for Lesser spotted Eagle *Aquila pomarina***

Lesser Spotted Eagle is a forest-dweller that prefers patchy woodland alternating with wet meadows, pastures, river valleys, marshes and peat bogs. It does not favour sparsely forested, intensively cultivated areas, or tall crops (e.g. maize or sunflowers which make it difficult to search for prey). It usually nests in tall forest near a glade or woodland margin, and the cutting of large and old trees reduces available nesting sites. In the lowlands vertical structures are important for feeding (e.g. trees, posts, hay stacks) and birds also make use of accessible wetlands and short grasslands for seeking prey on foot - principally small mammals, amphibians, small to medium-sized birds, and sometimes reptiles and large insects. Loss of mosaic landscape leads to lower availability of prey.

#### *Threats to mixed traditional farmland habitats*

In all Member States mixed traditional farming is at risk, initially from abandonment because the farms are small, labour intensive and unprofitable, but also increasingly from intensification as governments support restructuring of the industry and farmers take advantage of CAP direct aids and new markets. Investment in land, machinery and the use of agro-chemicals will increase, and traditionally managed high nature value farming systems are at risk of being 'consolidated', taken over by larger farms and managed more intensively. In Poland, Slovakia and Cyprus the abandonment of mixed traditional farming is also a threat, likely to be followed by natural reversion to scrub and woodland or, in Poland, possibly by afforestation.

<sup>16</sup> This is a legal requirement in SPAs in Slovakia and new restrictions will be introduced in Natura 2000 management plans in Slovenia

<sup>17</sup> For example small woodlands, scrub, lines of trees, and solitary, old dying and dead trees, hedges, ditches stone heaps, wet depressions

### *Managing mixed traditional farmland for the benefit of Annex 1 birds*

Management requirements for birds are aimed at maintaining the varied landscape mosaic and structure and the farming practices which provide cover, food and nest sites for variety of species including Eagles, Falcons, Shrikes, the almost extinct Roller (which feeds on insects and may benefit where field size remains quite small to guarantee a variety of habitats near their nests) and many, more common, farmland birds. (See Annex \*\* for a list of birds associated with mixed traditional farmland). The management requirements are presented here in two groups but it is important to note that **both groups** will need to be implemented if these important habitats are to survive:

**maintaining low intensity mixed farming** through: mixed organic farming; traditional perennial crops, local varieties and breeds, mixed crops; extensive grassland management<sup>18</sup> and reduced pesticide use, especially in viticulture.

**maintaining the spatial structure of the habitats by:** preventing conversion of grassland to arable; keeping the pattern of small fields; retaining field margins, ditches, stone walls, hedgerows, patches of scrub and woodland and other natural vegetation and small landscape features; maintaining traditional orchards; and retaining old, dying and dead trees and, on the forest edge, living trees with holes (nest sites).

All these management requirements may be resisted by farmers who would prefer either to abandon the land or to improve their income by taking advantage of modern farming methods, equipment, breeds and crops. Achieving long term management is likely to require not just carefully targeted agri-environment schemes but a fully integrated package of measures from all three Axes of EAFRD (this is discussed in more detail in section \*\* below).

#### **4.4 Permanent unimproved grasslands and steppes**

Wet grassland is found in all nine Member States except Cyprus, and is particularly important in Estonia, Latvia, Lithuania and Poland. Many wet grasslands are near rivers, lakes or the coast and are periodically flooded. Traditionally they were used for seasonal grazing by cattle and late mowing (if the weather allowed), with the hay used as bedding. Permanent dry grasslands (including steppe habitats) occur in all nine Member States, and are particularly important in Hungary, Slovenia and Cyprus where they traditionally were grazed. In Cyprus steppe and pseudo steppe habitats are used for extensive cereal production and grazing.

##### **Habitat management for Collared pratincole *Glareola pratincola***

The Collared pratincole breeds in colonies on steppe, semi-desert, fallow land with sparse or grazed vegetation, and in late sown crops on flat, firm, open soil or gravels free of obstructions or trees, shrubs, or tall herbage of any kind. Suitable habitats include steppe soils where vegetation may be controlled by grazing of cattle and sheep (which also encourage proliferation of insects.) Food is principally insects, especially beetles, and locusts, grasshoppers, and crickets, usually caught in flight. As Collared Pratincole colonies will occupy only a few traditionally used fields agri-environment measures can focus on these fields - it is important to avoid cultivation of arable land, including rotational fallow, during the breeding season (postponing mechanical cultivation and pesticide use by two weeks, or carrying out cultivation before breeding starts, may be sufficient. Small pools on these fields should not be drained.

#### *Threats to permanent grasslands and steppes*

Abandonment is a major threat in all seven Member States because of low productivity and declining numbers of grazing livestock, and the poor quality hay produced from wet grasslands is no longer in demand for bedding. Once abandoned, grasslands are likely to be recolonised by scrub and woodland or used for afforestation (possibly with EAFRD support). On wet grasslands early mowing is a threat to breeding Corncrake and other ground nesting

<sup>18</sup> grazing at a low LSU/hectare, using temporary fencing if necessary; cutting at least every one or two years to prevent scrub encroachment; mowing from the centre outwards, manually or mechanically at low speed; late mowing, not before 1 August in core areas for *Crex crex* and *Porzana porzana*, and not before 15 July outside core areas

species and some grasslands are at risk of being drained and more intensively managed (with higher stocking rates, increased fertiliser use, reseeded and earlier mowing). In several Member States unimproved grasslands are at risk of conversion to arable land because the cross-compliance requirements apply nationally, not at the level of individual farms. Drainage of wet grasslands is a particular threat in Latvia, where historically all IBAs were affected by drainage but many of these systems fell into disrepair, allowing the wetland habitats to recover. Now maintenance of long-neglected drains is starting to intensify and some new drains are being constructed, threatening to destroy both long established wetland habitats and those that have developed over the past 15-20 years.

#### *Managing permanent grasslands and steppes for the benefit of birds*

Dry grasslands and steppes are particularly important for Imperial Eagle, Roller, Corncrake, White Stork and, in Hungary, the Great Bustard. They also provide important hunting grounds for several raptors. Wet grasslands are very important for Corncrake, White Stork, Great Snipe, Spotted Crake, Aquatic warbler and Montagu's Harrier. (See Annex \*\* for a list of birds associated with grassland).

The aim of management is to maintain these open grassland habitats by using them as low-input pastures and meadows where agricultural activity and grazing is delayed until late in the season; on wet grasslands mowing may not be required every year, but it is important to maintain or restore the hydrological regime.

Management requirements fall into three groups but the best practice and choice of measures will depend very much on which birds are living in the area:

**Low intensity management of permanent grassland** with no conversion to arable or reseeded, no artificial fertilisers, herbicides or pesticides; controlling invasive plants and the spread of scrub, and developing a diverse grass structure, with areas of short grass; mowing once every one or two years; extensive grazing <1 LSU/hectare; grazing of marginal areas; maintenance of pastures with trees; use of traditional breeds; retain small woodlands, scrub, lines of trees, old, solitary dying and dead trees and, within 10m of the forest edge, living trees with holes. For wet grasslands it is also important that there is no new drainage and no restoration of long-neglected drains.

**Reducing the effect of farming activities on birds by:** mowing from the centre outwards, at low speed; leaving 10% of the area as unmown strips for cover in Spring; removing mown material, not stacking it; hand mowing, using small machines, mowing small parcels; requiring permission for burning grassland; no mowing or other agricultural activity before August in areas used by *Otis tarda*, *Crex crex* and other ground nesting birds (15 July elsewhere); delaying grazing until August or, if this is not possible, fencing off the most important areas for birds until then. Additionally on dry grasslands and steppes: spreading mowing over a long period; restricting the use of harrows; leaving cereal stubble 8-15 cm high; no poisoning of crows; requiring permission for burning grassland; no night working; limiting agricultural activities and public access in protection zones around nests (150m for Great bustard 50m<sup>19</sup> for Montagu's harrier *Circus pygargus*, 500m for other raptors).

**Investing in habitat improvement** by: providing artificial nests and nest boxes for Saker, Roller and White Stork, creating small ponds for White Stork, restoring mown meadows.

#### **Habitat management for Corncrake *Crex crex***

The Corncrake is now found mainly in agriculturally managed permanent grasslands with the highest numbers in floodplain meadows where fields are liable to flooding, and where mowing starts later in the season. Food is varied, mainly carabid beetles

<sup>19</sup> This is a legal requirement in SPAs in Slovakia and new restrictions will be introduced in Natura 2000 management plans in Slovenia

and earthworms. Preferred vegetation is tall (at least 20-30 cm) and provides enough cover for the birds to remain concealed. If cover is poor when the birds arrive in spring, stands of old vegetation left from the previous year or tall herbs or marsh vegetation may provide early cover. The breeding season lasts from early May well into September, with flightless chicks which are at risk from both early mowing and concentric mowing patterns which force the flightless young into areas where they will be eventually killed. Drainage of wetlands and wet meadows may result in loss of Corncrake habitat, especially if associated with conversion into arable or intensification of the management of the remaining grassland - high fertiliser levels may encourage vegetation too dense for Corncrake. Conversely, land abandonment may also mean loss of suitable habitat because grazing and small-scale haymaking does not renew the vegetation. The area of suitable tall (>20 cm) vegetation in areas managed for corncrakes should not fall below 10% of the total area of tall grass and herbage at any time between late April and late August.

#### 4.5 Perennial crops

Vineyards, olive groves, carob plantations and orchards are often intensively managed (sometimes by companies) with heavy chemical applications and no grazing. In Cyprus plot sizes are relatively small and remnants of natural vegetation remain. In regions of Hungary where farming is dominated by vineyards and orchards, most are intensively managed, but in some areas there are still traditional extensive orchards, especially near the Tisza River.

##### *Threats to perennial crop habitats*

Intensification of management with increased use of pesticides, and loss of the remaining natural vegetation are the main threats, but in Hungary traditional orchards are also at risk of conversion to other uses.

##### **Habitat management for Griffon vulture *Gyps fulvus***

The Griffon vulture inhabits a wide range of open habitats, with few or no trees, in plains, mountains or upland plateaus, breeding on cliffs, mainly in mountains but also along coasts - it is quite tolerant of human presence and may nest close to habitation. It is largely dependent on domestic livestock carrion and is affected by changes in farming practices, the decline of extensive livestock farming and reduced availability of livestock carrion. Afforestation may reduce the availability of open foraging areas.

##### *Managing perennial crops for the benefit of birds*

In Cyprus perennial crops are particularly important for the Griffon vulture and Stone curlew, and Lesser grey shrike *Lanius minor* on migration. (See Annex \*\* for a list of birds associated with perennial crops). The aim of management is to:

**Support traditional methods of cultivation, where these still exist, with** advice and investment support for growers and assistance with developing, processing, labelling and marketing products from traditional orchards, vineyards and olive groves in Natura 2000 areas, and to:

**Improve feeding opportunities for birds** by: reducing fertilisers and biocide application; encouraging maintenance and planting of natural scrub around plots (Cyprus); using traditional cultivation methods and growing local varieties of fruit.

Perennial crops are similar to mixed traditional farming in that there will be a need to for support from both Axis 1 and Axis 2 to ensure the economic survival of traditional production methods which are important for birds.

#### 4.6 Managing the farmed countryside for the benefit of farmland birds generally

Managing farmland to improve opportunities for birds generally involves many of the same measures as those identified above for existing habitats. Where the measures are aimed at intensively managed farmland significant improvements can be achieved by reducing the

overall intensity of management, protecting existing habitats and features and applying targeted agri-environment management to relatively small proportions of the land, for example:

**Lowering the intensity of management** by reducing fertilisers and plant protection products and stocking rates, and by organic farming.

**Protecting** existing semi-natural grassland habitats by prohibiting afforestation, drainage of wet grassland and conversion to arable and retaining small landscape elements such as isolated trees, wet depressions, patches of semi-natural vegetation, ditches, windbreaks etc

**Creating new habitats** on intensive farmland - grass strips of nectar producing flowers and food plants in arable fields, beetle banks, ponds, wet grassland, nest boxes, perching poles

**Adopting bird-friendly crop management** - mowing grass 'inside outwards', later harvesting, mowing and grazing date in important nesting areas, winter green cover with suitable species, winter stubble, managed fallow, non-cultivated patches in cereal fields, no poisoning of crows.

#### Farmland birds - policy and practice

This section examines the policy context and drivers for Member States using agri-environment measures to:

- meet their legal obligations under the Birds Directive to protect and conserve wild birds and their habitats; and
- reverse the decline in farmland birds, which is a key indicator for achieving the EU target of halting biodiversity decline by 2010;

and then considers the extent to which agri-environment measures depend for their effectiveness on supporting from other measures and policies.

#### 4.7 Policy context and drivers

It is clear that the EU policy framework underpinning agri-environment measures for habitat management for birds, especially on areas of high nature value farmland, is much more robust for the 2007-13 EAFRD programmes than it was for the 2004-06 RDP. However, this does not provide any guarantee that Member States will allocate higher priority and better funding to bird-specific agri-environment measures, as discussed in section \*\* above.

##### *Commission Strategic Guidelines for EAFRD*

The next generation of agri-environment schemes in 2007-13 will follow a more strategic approach to the use of EU funding under EAFRD. Member States are required to prepare a national rural development strategy (the reference framework for the 2007-13 programmes) in compliance with the Commission's Strategic Guidelines, including the requirement that:

**'... the resources devoted to axis 2 should contribute to three EU-level priority areas: biodiversity and the preservation and development of high nature value farming and forestry systems and traditional agricultural landscapes; water; and climate change. The measures available under axis 2 should be used to integrate these environmental objectives and contribute to the implementation of the agricultural and forestry Natura 2000 network, to the Göteborg commitment to reverse biodiversity decline by 2010, to the objectives... for Community action in the field of water policy, and to the Kyoto Protocol targets for climate change mitigation<sup>20</sup>. (our emphasis)**

The specific emphasis on preservation and development of high nature value farming and systems and reversing biodiversity decline is an important argument for prioritising agri-environment measures targeted at habitats used by farmland birds. high nature value farming systems are based on traditional patterns of land ownership, farm management and cropping systems which are important bird habitats in all Member States and are one of the most complex challenges for rural development programmes because they are threatened by so many different pressures.

##### *Natura 2000*

The legal obligations of habitat management for Natura 2000 are sometimes assumed to be restricted to designated sites but this is certainly not the case for birds, including many farmland species whose populations are found in the wider countryside and not confined to SPAs.

Under the Birds Directive Member States must take measures to preserve, maintain or re-establish habitats for birds. This includes creating SPAs, managing habitats inside and outside SPAs, re-establishing destroyed biotopes and creating biotopes; special conservation measures have to be taken for the habitats of Annex I birds to ensure their survival and reproduction. Of the twenty species highlighted in this study as suitable for targeted agri-environment schemes sixteen are already in unfavourable conservation status, and it is worth noting that Member States do not have to wait until species decline before taking action under the Birds Directive<sup>21</sup>.

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<sup>20</sup> COUNCIL DECISION of 20 February 2006 on *Community strategic guidelines for rural development (programming period 2007 to 2013)* (2006/144/EC)

<sup>21</sup> According to the judgement of the European Court of Justice against Spain (case C-355/90) obligations of the Birds Directive exist before any reduction in the number of birds or any risk of a protected species becoming exzotinct has materialised.

There are two other, less well known, provisions in the Natura 2000 legislation that apply to management of habitats for birds in the wider countryside. Outside protection areas, Member States must:

- strive to avoid pollution or deterioration of habitats<sup>22</sup>; and
- to improve the ecological coherence of the Natura 2000 network, Member States must encourage the management, in the wider countryside, of landscape features which are of major importance for wild fauna and flora such as rivers and their banks, traditional field boundaries, ponds or small woods<sup>23</sup>.

These legal requirements reinforce the argument that, in implementing the Commission's guidelines, rural development plans should both safeguard habitats and landscape features from destruction (for example by drainage, afforestation and land consolidation) and prioritise EAFRD support for their management using agri-environment and Natura 2000 payments.

*Göteborg commitment to reverse biodiversity decline by 2010*

In 2001, the European Council made a commitment to 'halt the decline of biodiversity by 2010', and in May 2006 the European Commission released its Communication on halting biodiversity loss, with a new 'EU Action Plan to 2010 and Beyond' and specific actions for implementation at Community or Member State level, or both<sup>24</sup>. The Action Plan does not supersede the existing Biodiversity Action Plans, but is intended to complement them.

Sections of the Action Plan relevant to the delivery of agri-environment schemes for 2007-13 are in Table \*\* below and cover action by Member States on funding, specific measures for high nature value farmland at risk of intensification or abandonment (or already abandoned), cross-compliance, environmental legislation, advisory, training and extension services for biodiversity management, review of LFA policy to make it more biodiversity friendly and evaluation of the impact of EAFRD measure on biodiversity. If properly implemented, all of these actions are likely to benefit farmland birds.

**Table \*\* EU Action Plan 2010 and beyond (our emphasis)**

	<b>Action</b>	<b>at EU level</b>	<b>at Member State level</b>
A2.1.1	<b>Allocate, at MS initiative</b> , within each national/regional Rural Development (RD) Programme, <b>adequate Community and MS cofinancing</b> to measures available under <b>all three axes</b> of the RD Regulation which are <b>directly or indirectly supportive of nature and biodiversity</b>	Assess MS RD Programmes and seek amendments where appropriate.	<b>Ensure adequate MS funds to make up any shortfall in funds provided by EC co-financing</b>
A2.1.2	Apply Rural Development (RD) measures in the next programming period [2007-2013] to <b>optimise long-term benefits for biodiversity - in particular for Natura 2000 areas and for other 'high nature value' farm and forest areas</b>	Provide guidance on application of RD measures, including on identification of high-nature-value farmland, forests and woodlands	Ensure CAP National Strategy Plans and <b>National and Regional RDPs reflect this need</b>
A2.1.3	Define criteria and <b>identify [2006-07] high-nature-value farmland</b> and forest areas (including the Natura 2000 network) threatened with loss of biodiversity (with <b>particular attention to extensive farming and forest/woodland systems at risk of intensification or abandonment, or already abandoned</b> ), and <b>design and implement measures to maintain and/or restore conservation status</b>	Evaluate extent to which Common Agricultural Policy (CAP) National Strategy Plans and National RDPs reflect this need - encourage adjustments where necessary	Define criteria in order to capture all farm and forest land of high value for biodiversity, <b>identify high nature value areas, develop measures to address threats</b>

<sup>22</sup> Article 3 and 4 of COUNCIL DIRECTIVE 79/409/on the conservation of wild birds (EEC)

<sup>23</sup> Article 10 of COUNCIL DIRECTIVE 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

<sup>24</sup> COM (2006) 216 final

	[2007 onwards]		
A2.1.4	Ensure effective <b>implementation of cross-compliance</b> (which provides a baseline for most of the measures of Axis 2 of the Rural Development Regulation) <b>in ways that benefit biodiversity</b> [2007-2013].	Evaluate extent to which CAP National Strategy Plans and National RD Programmes reflect this need - encourage adjustments where necessary	Ensure CAP National Strategy Plans and <b>National and Regional RDPs reflect this need</b>
A2.1.5	Ensure that MS Rural Development Plans ( <b>RDPs</b> ) <b>comply with environmental legislation and in particular with the nature directives</b> so as to prevent and minimise any potential damages to biodiversity [2007-2013].	Assess whether proposed CAP National Strategy Plans may result in breach of environmental legislation, seek adjustments where necessary	Ensure <b>national plans comply</b>
A2.1.6	Broaden <b>extension services, farm advisory systems and training actions to farmers, landowners and farm workers to strengthen biodiversity-related implementation</b> in the next rural development programming [2007 onwards], including support from the LEADER axis.	Evaluate extent to which CAP National Strategy Plans and National RDPs reflect this need - encourage adjustments where necessary	Ensure CAP National Strategy Plans and National and <b>Regional RD Programmes reflect this need</b>
A2.1.7	Ensure future ' <b>less favoured area (LFA)</b> regime [from 2010] under Axis 2 <b>enhances its contribution to biodiversity and to 'high nature value' farm and forest areas.</b>	Assess contribution of LFAs to biodiversity, means to enhance this contribution - and reflect this in 2008 report and proposals	Support <b>LFA regime which is more favourable to biodiversity</b> , implement new regime
A2.1.8	Implement the common monitoring and evaluation framework and Strategic Environmental Assessment (SEA) Directive requirements where applicable for rural development programmes, including the definition of indicators in a way that <b>impact of measures on biodiversity is assessed</b> [2006 onwards].	Evaluate the extent to which MS have used the mandatory indicators and the appropriateness and adequacy of their additional programme specific indicators	Use mandatory indicators, and draw up additional <b>programme-specific indicators</b> as needed

#### 4.8 Importance of other land use policies for the success of agri-environment schemes

It is clear from the analysis of threats above and the experience of the first RDPs that agri-environment schemes for the management of bird habitats may not succeed unless other priorities are addressed at the same time, specifically:

##### 1. Securing long term use of the land for farming

Abandonment and change to non-agricultural use are the main threats to securing long term farming use of IBAs, particularly grasslands. In most Member States marginal grazing lands were abandoned as livestock numbers declined dramatically in the 1990s, allowing scrub development and eventual loss of the open grassland habitat. In some Member States this has been actively encouraged through afforestation schemes and reclassification of the land as non-agricultural for tax and registration purposes, making it ineligible for agri-environment support. Abandoned land may also be more attractive to developers, if the owner has no interest in its long-term management.

##### 2. Protecting the spatial structure of the farmed landscape

Management of IBAs for birds, and other groups of highly mobile animals, depends on optimum management of a combination of habitats and features within the landscape, often at a scale larger than that of individual plots or farm units. This is illustrated by the combined value of small fields, mixed crops and small landscape features within mixed traditional farmland for birds like the Roller *Coracias garrulus*. Such complex patterns may survive partly as a result of fragmented ownership (as in Poland) and their loss may be hastened by land consolidation measures and the profitability of large-scale commercial production - even if agri-environment measures are in place for individual elements of the mosaic.

### **3. Support for low-input extensive farming systems**

Optimum farmland habitat management in IBAs will often require support for extensive systems which existed until recently but are now (or will soon be) threatened by intensification - for example unimproved grasslands and mixed traditional farming. Agri-environment measures can make a significant contribution but it will also be necessary to find new ways of achieving traditional management results on the ground with less labour, and to add value to the products of extensive farming systems and find new markets. Where farming systems in IBAs have already been intensified - for example in arable and perennial crops - agri-environment support may best be used to introduce some elements of extensification without threatening the overall productivity of the farm unit.

### **4. 'Bird-friendly' agricultural management**

Significant benefits may be achieved by changes to 'in-field management' to provide food or cover for the birds (and their prey) or to improve the breeding success, particularly of ground nesting birds such as the crakes. These changes are well suited to support for agri-environment management payments and 'non-productive' investments, but it is essential that farmers understand why they are being paid for what they may view as old-fashioned and inefficient farming.

These four priorities may be considered as a hierarchy, because in many cases if the first and second priorities are not secured the use of agri-environment measures to achieve the third and fourth priorities are unlikely to succeed in the long term. This suggests that in many IBAs (and in the wider countryside) management of farmland for birds will depend on implementing a coherent and mutually supportive framework of measures that directly link biodiversity and Natura 2000 policies not just with agri-environment measures but also with other EAFRD measures and requirements. This framework is likely to include:

- legal restrictions on land use changes and land management practices in both SPAs and the wider countryside;
- clear commitments in the EAFRD National Strategies to support management for farmland birds, develop high nature value farming systems, encourage management of landscape features and ensure that Axis 1 and 2 funding will not be used to support activities which directly or indirectly damage IBAs and other habitats used by Annex 1 farmland birds;
- targeted packages of agri-environment management payments, Natura 2000 compensation payments and support for non-productive investments for habitat management for the benefit of Annex 1 and other farmland birds (both in IBAs and the wider countryside), with adequate payment rates and budgets;
- targeted and coherent packages of measures from Axes 1, 3 and 4 to address the economic and social problems of high nature value farming systems and promote their environmental sustainability;
- payments for areas with natural handicaps (LFA) structured in a way which supports high nature value farming and other management favourable to birds;
- administrative guidelines and safeguards developed jointly by Ministries of Environment and Agriculture to ensure that when schemes are designed and applications are assessed for any EAFRD funding (Axes 1,2 3, and 4) the management of farmland for Annex 1 birds is safeguarded and promoted;
- Good Agricultural and Environmental Condition cross-compliance requirements defined to protect features and habitats used by birds and to promote farm

management practices favourable to birds and proper enforcement in IBAs and the wider countryside;

- advice, information and training for farmers managing bird habitats.

The following sections discuss the implementation of agri-environment schemes and their relationship with the other parts of this framework, first generally for all nine New Member States and then in more detail for each country.

## 5 Implementing 2007-13 agri-environment schemes for the benefit of birds in nine New Member States

**Important note:**

Unless other sources are cited the information in this chapter is from a questionnaire survey of local experts in spring/summer 2006, when the proposals for the 2007-13 programmes were not finalised. The following information was the best available at the time but may no longer be up-to-date.

This section takes the four questions posed by the study as a basis for considering how Member States will need to design and implement their 2007-13 rural development programmes to deliver EU environmental policies and targets for farmland birds and discusses the progress made by the nine New Member States. Key points for each Member State can be found in the relevant sections 6 to 14 below.

The four questions were:

Are bird conservation priorities adequately addressed in the **objectives, targeting and funding** of the RDP?

Is the **design** of agri-environment schemes and measures fit for the purpose of safeguarding and managing farmland habitats for bird conservation priorities?

What are the barriers to **delivery** of appropriate, targeted and effective agri-environment measures where they are needed for bird conservation priorities?

What is the **contribution of other CAP policies** to the delivery of effective agri-environment schemes for bird conservation

### 5.1 Objectives, targets and funding for agri-environment schemes for birds

#### *Objectives*

Compared to their total area of farmland the New Member States hold a disproportionate share of the EU25 populations of many farmland birds, including ten threatened Annex 1 species. As a consequence the management of farmland bird habitats in the New Member States is likely to be a critical factor in meeting the legal requirements of the Birds and Habitats Directives and delivering the EU's commitment to reversing biodiversity decline by 2010. The long-term decline of farmland birds in Europe has been associated with more intensive farming in EU15 and is seen once more in the new Member States as their farming sector recovers from the economic collapse of the 1990s and takes advantage of EU membership. Without positive action the loss of extensively managed farmland bird habitats is likely to continue as a direct result of improvements in competitiveness, farm incomes and animal welfare and food hygiene standards. Very specific targeted action will be required, both in IBAs and the wider countryside, to reverse these trends, with clear objectives and realistic targets based on sound evidence.

Many of the national strategies and 2007-13 plans for the nine New Member States do make reference to protecting Natura 2000 sites, and improving biodiversity and the state of habitats and species in rural areas. Very few have specific objectives for farmland birds and where they do it is for key threatened species (such as the Corncrake) rather than for farmland birds in general. This is perhaps surprising when the Farmland Bird Index may be used by the Commission to assess the impact of Axis 2 measures, and perhaps could be used by Member States themselves in support of Axis 2 budgets when they need to argue their case for EAFRD funding in future.

high nature value traditional farming systems are of particular value to birds, and their preservation and development has been identified by the Commission as a priority for Axis 2 funding. One of first priorities for agri-environment schemes and funding should therefore be

to support the management of high nature value bird habitats where these still exist, and to restore them where they have recently been abandoned (both inside and outside SPAs). Well designed and supported Natura 2000 and agri-environment measures are essential, but on their own are may not be able to support a whole farming system and the often complex land use and social structure on which it depends, if economic pressures and other rural development measures are pulling in the opposite direction. It is clear from the response to our questionnaire survey that if traditional farming systems are to survive and develop it will be essential to:

- protect characteristic habitats and landscape structures from Axis 1 or Axis 2 supported actions which threaten to destroy them (e.g. improving the competitiveness of farms, restructuring into larger units, growing energy crops, removing non-farmed landscape features, afforestation).
- support the whole farming system with a specially designed combination of regulation, cross-compliance, agri-environment payments, non-productive investments and agri-environment advice and information for farmers who may not understand why they should retain old-fashioned farm structures when everyone else is modernising;
- helping farmers to improve their working conditions and profitability (without damaging habitats) through a carefully targeted package of support from the other three Axes for high nature value farming systems. For example: semi-subsistence farm support; advice and investment support to meet EU environmental, hygiene and safety standards so that they can continue to keep livestock (perhaps beef rather than dairy); purchase of small scale machinery; assistance with developing, processing, labelling and marketing products from traditional mixed farming in high nature value areas; and setting up co-operatives, micro-businesses and tourism enterprises.

This targeted rural development support for high nature value farming will require coherent, integrated objectives, schemes and delivery mechanisms across all four Axes. This level of integration, particularly of schemes and delivery mechanisms, will be a challenge for Member States and it is not clear if it is even a priority. On the contrary, despite the Commission's guidelines stressing the need for internal and external cohesion of EAFRD measures our survey produced worrying examples of both Axis 1 and Axis 2 measures which directly threaten bird habitats targeted by agri-environment schemes in the same programme.

#### *Targets and indicators for the impact of agri-environment schemes on birds*

Rural development objectives should be accompanied by targets and indicators which can be used to evaluate their impact - this is particularly important for complex measures like agri-environment schemes. In the absence of any specific targets for changes in populations of farmland birds by 2010 and 2013 it is difficult to see how the Commission will be able to assess what contribution individual Member States' planned Axis 2 spending will make to achieving positive conservation status for Annex 1 farmland birds or meeting the Göteborg target in 2010<sup>25</sup>. So far there is little evidence of quantitative impact targets being set by Member States, either for key Annex 1 species or farmland birds in general.

Few details are available of evaluation proposals for the 2007-13 agri-environment schemes but Estonia is implementing an ambitious evaluation of the biodiversity impacts (see box below) but even here there are concerns about the adequacy of bird population data sets.

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<sup>25</sup> Quantified targets could be set for population change in targeted species, at varying geographical scales (farm, high nature value site, Member State) over different intervals of time

## CASE STUDY

### Evaluating the impact on biodiversity of agri-environment schemes in Estonia

Independent evaluators appointed by the **RDP Evaluation Committee** are responsible for evaluation of all RDP measures except the agri-environment measure. The **Agricultural Research Centre (ARC)** has been given the role to act as an independent evaluator of the agri-environment measures and plays a central role in both internal and external evaluation. The **Agri-environment Evaluation Unit** within the ARC has specific responsibility for:

- managing the collection of all necessary data for the preparation of impact indicators (plus some result indicators);
- administration of the centralised data management system that will provide long-term data storage and processing facilities for the evaluation of all future agri-environment programmes in Estonia; and ensure that all systems of data definition, collection and management are compatible now and in the longer-term – this will include data from primary and secondary sources;
- preparing a series of “internal evaluation reports” that compile and review available data and other information on the progress and performance of the agri-environment programme and sub-measures. The main objectives of these “internal evaluation reports” is to continue building capacity of the ARC through a process of “learning by doing”; provide feedback into the on-going revision and development of the agri-environment measures; and inform and support strategic decisions on the prioritisation of policy developments and allocation of resources;
- performing the function of “agri-environment independent evaluator” in answering the EU Common Questions that are specific to the agri-environment measure during mid-term and ex-post evaluation. An additional external “independent evaluator” will be selected for the evaluation of all other RDP measures.

The Agri-environment Evaluation Unit is supported by an **AE Evaluation Expert Knowledge Group** that provides technical assistance and advice as needed. Most of the organisations are state funded for their work on agri-environment evaluation.

All the indicators used for the evaluation of the agri-environment measures 2004-2006 derive from the objectives set up for the measures and sub-measures. One of the general objectives of the scheme is promoting the integration of environmental management practices into normal farming operations, so as to protect and improve biological and landscape diversity and protect soil and water resources. For evaluation of agri-environment measures in 2004-2006 several biodiversity indicators are used (birds, earthworms, bumblebees, plants). For the bird indicator, the number of indicative breeding species and their density are monitored to find out whether organic farming strengthens the biological diversity or not. Data collection using line-transect method started in 2005 in 3 different regions: West Estonia (Saaremaa, Läänemaa), Central Estonia (Jõgevamaa, Tartumaa), South East Estonia (Võrumaa) on the same farms where other biodiversity monitoring activities take place. Sample size in 2005 was 30 farms; in 2006 the sample size was increased to 66 farms. At the moment no special attention has been paid to evaluating agri-environment impact on Annex 1 species. In the 2007-2013 period the current bird monitoring for agri-environment evaluation will continue. Separate monitoring areas will probably be selected and a separate method will be used to collect data related to the 'population of farmland birds' indicator.

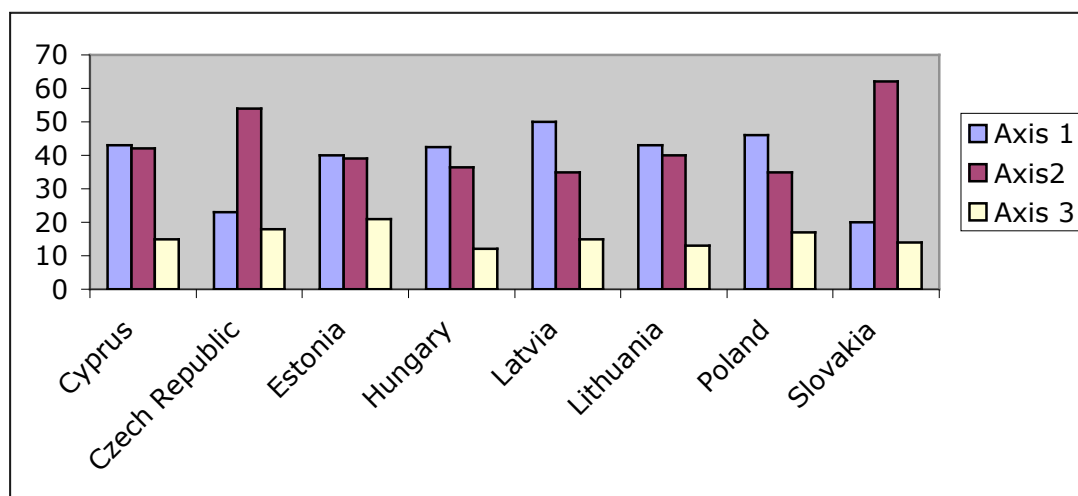
### *Funding*

In 2004-06 only a small proportion of agri-environment funding and schemes were targeted at farmland birds, despite relevant expertise in scheme design and experience of pilot projects in some of the New Member States. Achieving EU objectives for farmland birds and Natura 2000 will, in many Member States, require a significant increase in funding for agri-environment schemes targeted at birds both in high nature value areas and the wider countryside..

Competition for funding between agri-environment and other EAFRD measures is likely to be a limiting factor for agri-environment schemes in 2007-13 despite the 25% minimum for Axis

2. Figure\*\* below compares the proportions of the EAFRD budget expected to be allocated to Axis 2 in each Member State.

**Figure \*\* Provisional allocations of EAFRD budget for 2007-13**



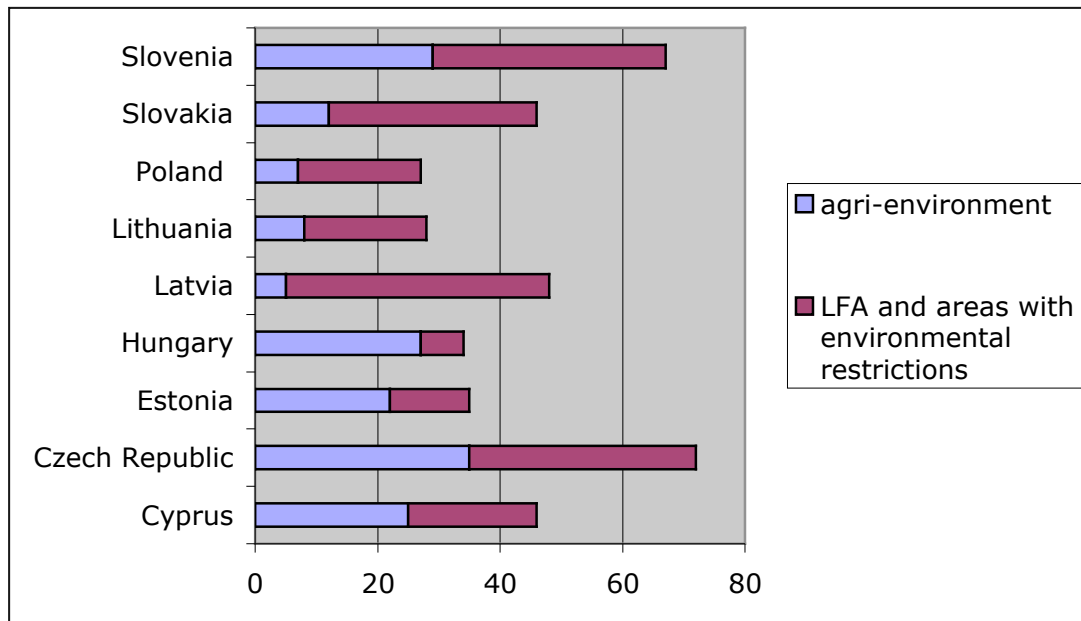
Several respondents to our survey commented on 2007-13 funding allocations and expressed concerns that:

- not enough Axis 2 funding would be allocated to measures targeted at birds, even in IBAs and other high nature value areas;
- the majority of agri-environment funding (and uptake area) in 2004-06 had been allocated to 'shallow' schemes, which are easy to implement and popular with farmers but provide relatively few benefits for birds, and this emphasis on simple horizontal schemes might continue in 2007-13; in some cases the response of Ministries to lack of uptake of targeted schemes in 2004-06 seems to be to delete them from the 2007-13 programme, rather than tackling the causes of poor uptake;

Respondents also pointed out that opportunities have been missed to 'build in' benefits for farmland birds to agri-environment schemes (and other Axis 2 measures) targeted at different objectives such as pollution control. LFA support is an example of the latter point. It has been a significant element of the 2004-06 plans (see Figure \*\*) and may have helped to prevent abandonment of high nature value farmland but, in several Member States, opportunities have been missed to attach simple conditions that would benefit birds and other biodiversity. Changing the baseline from GFP to Good Agricultural and Environmental Condition may in some cases further reduce its environmental effectiveness. It seems likely that LFAs will continue to take a significant proportion of the Axis 2 budget in many Member States, despite the Commission's intention to review the policy and the clear signal in the Action Plan that it should be making a bigger contribution to biodiversity and high nature value farming systems.<sup>26</sup>

**Figure \*\* Relative percentages of EAGGF funding allocated to LFA and agri-environment in each Member State in 2004-06** (source; DG Agriculture., Member State profiles of Rural Development Plan 2004-06)

<sup>26</sup> See Table \*\* point A@.1.7



## 5.2 Design of agri-environment schemes and measures to benefit birds

Design of agri-environment schemes includes setting management prescriptions, uptake targets and payment rates.

### *Management prescriptions*

Prescriptions need to be carefully designed to meet all the management needs of birds, which can be complex. For some birds these needs are highly specific and well documented (e.g. nesting sites for the Great Bustard) but in general management requirements for birds cover:

**food supply** (for seed and grain feeders and grazers these may be provided directly by the crop and its weeds, but as birds are often near the top of the food chain their food supply may be other animals such as invertebrates, amphibians or small mammals which depend on areas of semi-natural vegetation or landscape features such as trees and ponds. Some birds such as the Roller *Coracias garrulus* require a variety of food supplies near the nest, as may be found in mixed traditional farmland.

**nesting areas** which may be in small landscape features or in the crop - for example Corncrake *Crex crex* which nests in wet grassland and has flightless chicks for whom mowing dates and methods are critical for survival.

**shelter and cover** from predators, which may be provided by having a diversity of habitats and structures within reach, such as uncropped land, patches of semi-natural vegetation, isolated trees and other landscape features

Many of these requirements can be provided by low intensity management of farmland and by adapting day-to-day activities to the birds' needs. In the wider countryside it may be sufficient to provide this on only a proportion of the farm (e.g. grass strips on arable land) but in IBAs and other high nature value areas management at landscape scale is likely to be required, involving most of the farmland in the area.

There were several measures targeted at Annex 1 birds and high nature value areas and in the 2004-06 programmes, particularly in those Member States with experience of national agri-environment schemes before accession. Not all these schemes were successful - in some cases this was due to problems with payment rates and delivery (see below) but in others the prescriptions were not ideal for the birds, or caused problems for the farmers. The problems in implementing grassland measures for Corncrakes illustrates the problems and costs of combining ideal management for birds with productive, mechanised farming. Some high nature value measures were implemented most successfully by absentee owners who were not dependent on the produce of the farm to make a living, but were willing to manage the land for agri-environment payments.

In the wider countryside there were relatively few horizontal measures targeted at farmland birds, and the opportunity was sometimes missed to make slight changes to agri-environment measures designed for other objectives, so that they would also benefit birds. For example:

- adding a requirement to an organic farming to maintain small landscape features of benefit to birds, such as patches of semi-natural vegetation, wet depressions, isolated trees (including dead trees), lines of trees, hedges.
- altering the seed mixes and mowing regimes for the pollution control strips of grass sown along the edge of arable fields to provide food and shelter for birds and their prey.

#### *Non-productive investments (Article 41)*

There is surprisingly little evidence of Member States planning to use non-productive investments to support habitat management for farmland birds, despite the fact that this measure can provide farmers with funding at the start of a five year agreement, for habitat improvements such as the construction of small ponds and scrapes, fencing to control grazing in nesting areas and perching posts for raptors.

Lack of sheep and cattle grazing is a major problem for high nature value grassland management, and where the capital costs of re-introducing livestock are too high for many small farmers (e.g. in Hungary) they cannot join agri-environment schemes. In these cases there would be great benefit if the cost of purchase or leasing of livestock (perhaps of indigenous breeds) was made eligible for Axis 2 non-productive investment or agri-environment support or Axis 1 farm investment support, where it would protect high nature value land from abandonment. Although it could, in theory, be covered by Natura 2000 compensation it is extremely unlikely that any Member State would make it a legal requirement for farmers to keep livestock.

#### *Targeting agri-environment measures*

Targeting can include not just defining the geographical coverage of a scheme but also the use of advisory and extension services to promote effective uptake, and the setting of payment rates and management prescriptions to meet regional or local needs. Where measures are designed for Annex 1 species confined to particular areas targeting should be relatively easy. There are several examples of this type of zonal scheme operating both inside and outside SPAs. On the other hand, geographical targeting of measures that benefit more widespread Annex 1 species and other birds has in some cases been too restrictive.

The relationship between Natura 2000 compensation payments and agri-environment schemes will be complicated, particularly in the early years of the 2007-13 programme. The Commission has made it clear that Natura 2000 compensation payments (Article 38) cannot be implemented until the mandatory requirements at farm level are covered by national legislation. The view of some NGOs that these payments will be a flexible tool to implement SPA management plans at farm level does not seem to be shared by Member States, who regard them as having a mainly protective role, safeguarding habitats from harmful change. Support for positive management and improvement of Natura 2000 farmland habitats will, it seems, continue to be funded by agri-environment schemes - and where designation is not complete or Natura 2000 regulations are not in place at the beginning of the 2007-13 programme, agri-environment schemes will initially have to cover both protective and management roles.<sup>27</sup>

#### *Payment rates*

Setting the appropriate payment rate is critical to the success of every agri-environment measure, and the best-designed measures may fail completely if the payments rates are not perceived by the farmers to cover their real costs. At the other extreme too-generous payment rates can draw funding away from other schemes, particularly if the requirements are undemanding and applicants are not selected according to expected environmental benefit.

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<sup>27</sup> Communication from DGAgri Directorate E1.2 to WWF Bulgaria, dated 18.7.2006

Occasionally this leads to more direct environmental damage than simply starving other schemes of funding - for example a generous payment rate for organic orchards in Poland had the unwanted perverse effect of encouraging farmers to destroy high nature value grassland in the process of planting new organic orchards. In other countries schemes for soil conservation (inter-cropping for example) have proved so popular that additional funding has been allocated to them while more demanding measures, of greater benefit to birds, have been largely ignored. These distortions are not unusual in the early stages of agri-environment implementation, especially where Member States have not piloted the measures, but they do illustrate the powerful and unexpected effects that payment rates can have on carefully thought out objectives.

The New Member States will have a particularly difficult task in setting payments rates for 2007-13 because 'the goal posts will move' as the profitability and costs of individual farms and whole sectors change in response to new markets and to investment supported by Axis 1, regional, social and cohesion funds. Proposals for 2007-13 suggest that Member States are gaining experience in setting payment rates but if agri-environment measures targeted at birds are to be competitive with other measures some flexibility will be required to allow adjustments in the early years. Setting payment rates will be more complicated on farms eligible for both Natura 2000 compensation and agri-environment schemes.

Few of the Member States have used differential payment rates as a means of targeting individual agri-environment schemes, but in some Member States payment rates in Natura 2000 areas are higher than elsewhere, or farmers are given easier access to competitive schemes. This approach could usefully be extended to other high nature value and traditional farming areas. Another way of targeting smaller farms is to make payment rates degressive as the size of the parcel or farm increases.

#### *The significance of Good Agricultural and Environmental Condition*

From 2007 Good Agricultural and Environmental Condition will be the baseline environmental requirement to be observed on the whole farm by farmers receiving Pillar 1 area payments and also by farmers receiving Axis 2 support for agri-environment, forest-environment, Natura 2000, afforestation of farmland and animal welfare (replacing 'Good Farming Practice' as defined for the 2004-06 programme).

Member States are required to define Good Agricultural and Environmental Condition to '*ensure a minimum level of maintenance and avoid the deterioration of habitats*' with standards for '*minimum livestock stocking rates or/and appropriate regimes, protection of permanent pasture, retention of landscape features, avoiding the encroachment of unwanted vegetation on agricultural land*'<sup>28</sup>.

The potential for Good Agricultural and Environmental Condition either to complement or to work against the objectives of agri-environment schemes does not seem to have been recognised fully, bearing in mind that this cross-compliance measure will have much greater leverage than GFP because it applies to direct support payments as well as to agri-environment and LFA payments.

Two particular concerns about the definition of Good Agricultural and Environmental Condition were highlighted in this survey:

- preventing the conversion of permanent pasture in high nature value areas (including NATURA 2000 sites) and
- protecting trees, bushes and other small landscape elements of farmland which can be particularly important for birds.

In several new Member States, there have been cases where trees and bushes have been removed by farmers to ensure that all their arable land qualifies for direct payment - but if protecting these features is made a requirement of Good Agricultural and Environmental Condition the land these features occupy will qualify<sup>29</sup>. This condition might be more effective in practice if farmers also had an incentive of to go a stage further than simply not damaging

<sup>28</sup> Article 51 of Regulation 1698/2005 and Annex IV of Regulation 1782/2003

<sup>29</sup> Commission Regulation 796/2004 Article 30 (3)

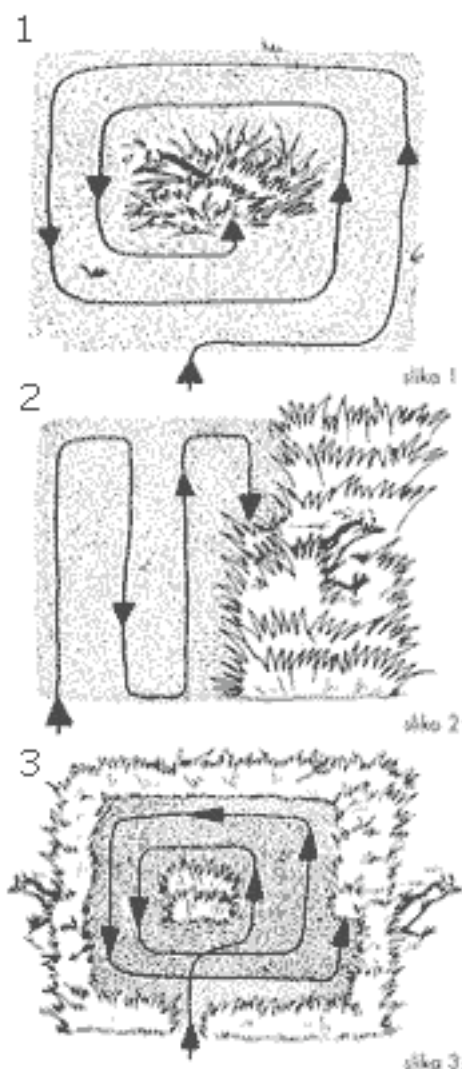
the landscape elements, and were rewarded by agri-environment payments for actively managing them for biodiversity.

Respondents have also pointed out that some existing GFP requirements which were of benefit to birds may not be transferred to Good Agricultural and Environmental Condition - if this happens it will increase the cost (or reduce the benefits) of agri-environment schemes which will have to start paying for management which had been a baseline requirement in 2004-06. Specific suggestions for transferring existing GFP conditions to Good Agricultural and Environmental Condition, can be found in chapters \*\* to \*\* and include:

- all mowing of grassland to be done using 'middle outwards' or similar bird friendly methods
- prohibition of converting high nature value grassland to arable land
- grass buffer strips along water courses

#### Figure \*\* Mowing technique favourable for Corncrake and other birds

Method 1 is not recommended because it traps the flightless chicks, hiding in the long grass: methods 2 and 3 allow them to escape unharmed.



(source of illustrations: Marjan Vaupoti BirdLife Slovenia)

The extent and quality of enforcement of both GFP and Good Agricultural and Environmental Condition has caused problems. In some cases requirements beneficial to birds are simply not enforced, or paying agency staff are unable to enforce them properly because they lack

the environmental skills (for example to identify invasive plants). Elsewhere farmers are discouraged from joining agri-environment schemes because they fear losing their direct payments if the agri-environment management requirements conflict with those of Good Agricultural and Environmental Condition (for example on grazing mowing) and it has not been made clear that exceptions can be made for land in agri-environment schemes. It will be important that derogations are in place for the 2007-13 schemes.

### **5.3 Delivering agri-environment measures of benefit to birds**

#### *Advisory and paying agency staff*

The lack of administrative and technical experience and failure of delivery systems has been a problem in introducing agri-environment schemes in the New Member States (as it has been for some of the more experienced EU15). In the case of Hungary payments to farmers have been severely delayed and there is concern that if this continues the goodwill and enthusiasm of the farmers will be lost.

Of greatest concern, in many of the Member States, is the lack of environmental expertise among agri-environment advisers, which appears to have been an important factor in the failure of some of the more demanding agri-environment measures, including those targeted at birds. An urgent need to have more biodiversity training for both advisory and paying agency staff was identified by respondents to the survey. The environmental competence of advisers is critical to the success of agri-environment programmes - they explain the purpose and intended outcomes of the programme to the farming community, match prescriptions to areas of the farm, explain the management requirements to the farmer and help farmers understand how to adapt their day-to-day farming and deal with the 'knock-on' effects of agri-environment schemes. It seems that in many Member States effective, knowledgeable advice on agri-environment schemes is only available from the staff in National Parks, protected areas and NGOs, often working informally and unpaid. Given the relative costs and benefits of biodiversity training for staff (compared to the costs of five years of badly delivered agri-environment schemes on thousands of hectares of farmland) there is a strong case for making biodiversity training of staff the highest priority for the 2007-13 programme. Although there may be few biodiversity experts in the agricultural institutions, more formal use could be made of the environmental expertise among some NGOs and academics, for example contracted as farm advisers or to provide training programmes for delivery staff and farmers.

The skills of paying agency staff were identified by respondents as another limiting factor in delivery. Standards of control (checking that farmers have carried out the management paid for) have already been heavily criticised by the European Court of Auditors who found that EU15 Member States had failed to observe properly the requirement in the RDR Implementing Regulation to pay for reduced inputs only where these could be measured<sup>30</sup>. The Court recommended that the Commission, should consider how the principle of 'payable if measurable' should be put into practice for the 2007-13 Plans, taking into account both the risk of non-compliance and the potential benefits of the expenditure<sup>31</sup>. If this principle is also to be observed for agri-environment management targeted at birds it is essential that paying agency staff have a clear understanding of the management requirements, and are able to explain to a farmer how to put right any failures of compliance.

#### *Farmers' attitudes*

Some New Member States have made considerable efforts to provide information and advice to farmers at the beginning of agri-environment programmes, and in several countries environmental training is compulsory for farmers entering agri-environment schemes. This effort seems to have helped the high rates of uptake in the Czech Republic and Estonia - in contrast to Poland where farmer training does not cover agri-environment management,

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<sup>30</sup> Article 18(3) of Regulation (EC) No 817/2004: 'Payments may be based on limitations on the use of fertilisers, plant protection products or other inputs only if such limitations are technically and economically measurable.'

<sup>31</sup> ...ref

advisers lack environmental skills and the uptake of agri-environment schemes has been very low.

A recent interview survey of farmers in Finland and Estonia shows that those farmers who were more interested in and knowledgeable about wildlife were more likely to use environmentally friendly measures<sup>32</sup>, and indicates that sufficient demonstration and advisory work is invaluable in putting conservation management into practice.

#### *Land and property rights*

There have been some problems with uptake of agri-environment measures, particularly for high nature value areas, caused by issues over property rights, including:

- owners seeking to claim payments at the expense of the tenants who farm the land
- local livestock farmers, who cannot afford to comply with the late mowing requirements of grassland management for Corncrake because the payments do not cover the loss of winter feed, are resentful of owners of farmland who live and work elsewhere taking advantage of LFA and agri-environment payments. In Latvia these 'sofa farmers' are making a significant contribution to the conservation of habitats which would otherwise be abandoned, but there is a risk that they may be excluded from some Axis 2 payments as a result of pressure from farmers' organisations
- many traditional farming systems have important bird habitats managed by farmers who do not own the land but have shared rights to its use - for example wet grasslands in Poland, orchards in Hungary. Excluding these farmers from agri-environment schemes because they do not have full tenure for five years will put high nature value habitats at risk of abandonment.

#### **5.4 Impact of other EAFRD measures on the success of agri-environment schemes**

The effects of budget allocations on agri-environment schemes targeted at birds are discussed above, but other rural development measures can also have significant effects, some posing a threat to bird habitats, others offering an opportunity to support both the economic and environmental sustainability of high nature value farming systems.

Potential threats to farmland birds from Axis 1 and 2 include:

- afforestation of valuable grassland bird habitats on farmland is a significant threat in Latvia in particular, but is also identified as a threat in other Member States. The proposed use of Axis 2 funds in this way contradicts the Commission's Guidelines for Axis 2;
- also in Latvia, there are threats to important bird habitats from the use of Axis 1 funding to support the repair and reinstatement of long-disused land drainage systems on wet grasslands used by birds;
- respondents in several Member States are concerned about the lack of environmental criteria in allocating Axis 1 farm investment support, especially for high nature value land.

Opportunities to use other rural development measures in a positive way to support agri-environment management for the benefit of birds, especially in traditional farming areas, include:

- Axis 1 support for purchasing small machines to replace hand mowing, to develop, process and market produce from high nature value areas, to set up co-operatives, and for environmentally beneficial investment
- Axis 3 support for micro-enterprises, farm tourism and the preparation and implementation of Natura 2000 management plans
- Axis 4 support for facilitators and public private partnerships to develop innovative solutions to the social and economic problems of traditional farming systems.

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<sup>32</sup> Herzon I and Mikk Management (in press)

## 6 Cyprus

### Key points for Cyprus 2007-13

*Are conservation priorities for farmland birds adequately addressed in the objectives, targeting and funding of the 2007-13 Rural Development Plan?*

Much of the farmland in Cyprus is managed as largely traditional, low intensity mixed farming with small fields and areas of semi-natural vegetation, resulting in a diverse agricultural landscape. These habitats support significant populations of several Annex 1 farmland birds in unfavourable conservation status, and the entire EU population of two birds endemic to Cyprus.

Intensification of production threatens bird habitats in the more productive farmland areas, with increased use of pesticides affecting insect feeders. Abandonment is more of a problem in marginal areas, often followed by development and permanent loss of the habitat.

Farms in Cyprus are small, mostly part-time and no longer economically viable on market income alone. This makes agri-environment payments an attractive source of additional income, but farmers in Cyprus see agri-environment support as merely another form of subsidy and not as a means of dealing with serious environmental problems.

50% of the UAA is classified as high nature value land but only 1% of this has been proposed for Natura 2000 designation, as a direct result of local opposition which led to all privately owned land (including most farmland) being taken out of the designation proposals. Agri-environment schemes targeted at the biodiversity management of all the high nature value land, would be the most effective way of implementing the EU requirement to use Axis 2 funds to contribute to biodiversity and protect and develop high nature value farming. It is not clear if this is to be a priority for Axis 2 funding.

The proposed share of the EAFRD budget for agri-environment in 2007-13 is less than the proportion spent on agri-environment in 2004-06 and significantly less than the total required to deliver agri-environment support for high nature value farming from 2007, particularly when Natura 2000 payments are unlikely to be available for farmland. It seems likely that little, if any, of this reduced budget will be spent on measures targeted at management of high nature value habitats for birds, and that existing schemes of benefit to birds may be dropped and priority given to schemes seen by farmers as more relevant to their interests.

*Is the design of agri-environment schemes and measures fit for the purpose of safeguarding and managing farmland habitats for the conservation of farmland birds?*

Biodiversity experts are concerned that two existing agri-environment schemes, with measures of benefit to birds, may not continue in 2007-13. One scheme aims to reduce the intensity of crop management and the other is targeted at traditional crop management, fire control and stonewalls in the LFA. The benefit to birds of the first scheme could be significantly improved by changing the management requirements and, in the case of potatoes, increasing the payment rates. Several measures in the second scheme have already benefited birds - planting and maintenance of traditional fruit trees and bushes, and maintaining stone walls. Environmental experts believe it is important to keep these measures and improve the uptake, but they are concerned that the measures may be dropped simply because uptake has been relatively low.

Other targeted schemes are needed to support management of high nature value farmland for birds but, apart from the organic farming scheme, the only other 2007-13 scheme relevant to birds was a proposal for wildlife set-aside in cereal growing areas, but this too seems to have been rejected by the Ministry of Agriculture. This scheme would have been very good for farmland birds (provided expert advice is followed on design of the management requirements) and had the support of environmental experts.

BirdLife Cyprus suggested two other new agri-environment measures for wildlife on farmland,

for conservation field margins and extensive grazing, but despite support from officials in Government Departments these appear to have been rejected by the Ministry of Agriculture.

*What are the barriers to delivering appropriate, targeted and effective agri-environment measures for the conservation of farmland birds?*

Effective implementation of the more demanding agri-environment schemes needed to protect Annex 1 birds and other important habitats and species will depend not just on adequate funding but also on:

- a major effort to change farmers' attitudes towards agri-environment schemes, so that they understand and support the objectives and importance of environmental management
- advisers who are trained in environmental management techniques and can provide technical advice and support to farmers, particularly for the more demanding schemes

evaluating the impact of agri-environment schemes on farmland birds and their habitats, and feeding this back into scheme design and implementation.

*What is the effect of other CAP policies on the delivery of effective agri-environment schemes for the conservation of farmland birds?*

Failure to implement some of the well-defined GFP requirements for habitat management, which should have been followed by all farmers in the LFA covering almost 60% of farmland in Cyprus, means that birds and their habitats are still being damaged by activities such as burning and overgrazing.

To safeguard existing habitats for Annex 1 birds, Good Agricultural and Environmental Condition cross-compliance requirements for 2007-13 should include basic protection of semi-natural habitats and landscape features from damage or destruction, and should be implemented effectively. Some elements of the traditional crop management scheme are more appropriate for Good Agricultural and Environmental Condition cross-compliance than for an agri-environment scheme, and if the agri-environment scheme does not continue in 2007-13 it is particularly important that these are transferred to Good Agricultural and Environmental Condition

Safeguards are needed, both in the design of schemes and in the assessment of individual applications, to ensure that Axis 1 support for farm modernisation and land consolidation does not damage biodiversity or destroy the small habitats and features so important for birds.

## **6.1 Agriculture in Cyprus**

Farmland occupies a smaller proportion of the total land area in Cyprus than in other New Member State, and the farms are smaller and mostly part-time - average farm size is 3.5 ha, 14.5% of the territory is agricultural land (UAA).

Part-time farming is very important in Cyprus - in 2002 only 29 % of all operators of agricultural holdings had agriculture as their exclusive source of income, and part-time farmers are generally younger and better educated than full-time farmers. The holding size of part-time farms for which the main source of income is agriculture is twice that of full-time farms<sup>33</sup>.

Much farmland in Cyprus is still wildlife-rich compared to Western Europe – the result of a diverse agricultural landscape and due to the predominance in many areas (especially uplands) of mixed farming with small fields, usually surrounded by remnants of natural vegetation and/or dry-stone walls. There are four main farming areas in Cyprus.

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<sup>33</sup> European Commission (2002) *Agricultural Situation in the Candidate Countries: Country Report on Cyprus* Directorate-General for Agriculture

A recent study<sup>34</sup> has shown that bird diversity and abundance in agricultural habitats in Cyprus both increase where there are more trees and scrub present and where use of pesticides and herbicides is limited. The close association of areas of natural vegetation with cropped areas seems to offer particularly suitable feeding, nesting and resting habitat for many priority bird species.

Using CAP funds to support low-intensity farming would be an effective way to preserve this rich farmland biodiversity, especially as much traditional non-intensive farming in Cyprus (vines, tree crops) is no longer economically sustainable without additional income sources. Agri-environment payments compensate the farmers for the additional benefits that their farming systems produce which are not fully recognized nor paid for by the market.

## 6.2 Annex 1 farmland birds in Cyprus

Many bird species of priority conservation concern for the EU are found in Cyprus farmland, including the endemic Cyprus warbler and Cyprus wheatear. Cyprus holds significant proportions of the total EU25 populations of Roller (16-25%), Masked shrike (85%), Long-legged buzzard, Black-headed Bunting, Calandra Lark, Black Francolin, and Chukar. Other Annex 1 farmland species used for the designation of IBAs in Cyprus include Griffon vulture, Stone curlew and Bonelli's Eagle. Please see Annex \*\* for more details of important farmland birds and their habitats in Cyprus.

Of the 16 IBAs in Cyprus, five are predominantly farmland and open scrub (*Phrygana* grazing land) with an estimated total of 27251 ha of farmland habitats. Three of these five areas (Akamas, Kilada Diarizou and Paphos Plain) with 78% of the total farmland habitats in IBAs, have not been proposed for Natura 2000 designation. This is a direct result of the strong opposition from local communities to Natura 2000 designation which led to almost all privately owned land (including most farmland) being taken out of the designation proposals. More than 50% of the UAA in Cyprus is classified as High Nature Value farmland but only around 1% of this land is currently proposed for Natura 2000 designation<sup>35</sup>.

Although these large areas of high nature value farmland within IBAs may not yet have the protection and benefits of SPA designation, it appears that the Cyprus government already has a legal obligation under EU environmental law to avoid the deterioration or pollution of these IBA farmland habitats<sup>36</sup>. If the government is to fulfil this obligation on privately owned high nature value farmland, high priority and sufficient funding will have to be given to targeted agri-environment measures to deal with threats to these areas, in line with the Commission's strategic guidelines on use of Axis 2 funding.

## 6.3 Threats to existing farmland habitats for Annex 1 and other birds in Cyprus

### **Mixed traditional farming**

These farms have vines, almonds, cereals, olives, citrus, carobs and remnants of scrub (usually grazed by sheep and goats) and small fields, often with dry-stone walls. Abandoned plots are not uncommon on the steeper slopes and marginal land. Farming is often by part-time farmers, with grazing part of the system. The main threats to these habitats are:

- excessive pesticide use;
- abandonment (but the effect of current levels of abandonment on Cyprus birds is not entirely clear)

<sup>34</sup> Hellicar, M.A. (2004). *The Importance of Low Intensity Farming for Birds in Cyprus*. Report on the findings of the bi-communal 'Birds and Farming in Cyprus' project managed by the Cyprus Environmental Studies Centre (ESC).

<sup>35</sup> At the time of writing About 85% of the area currently designated as pSCIs and SPAs is state forest, another 10% is government, or common, land, while only 5% is private land (BirdLife Cyprus pers.comm.) -

<sup>36</sup> The European Court of Justice (Basse Corbière Judgement C374/98) has concluded that unclassified SPAs, pending their formal classification, are subject to the stricter protection regime defined in the first sentence of Article 4 (4) of the Birds Directive '**Member States shall take appropriate steps to avoid pollution or deterioration of habitats or any disturbances affecting the birds, in so far as these would be significant having regard to the objectives of this Article**' (our emphasis)

- in future abandonment trend will probably continue because the cost of farm labour is a growing problem, and there may be moves to create larger fields and new terraces (with bulldozers) as re-allocation of plots continues under government schemes to create larger, unified blocks of land for each grower. This could lead to more monocultures and removal of remnants of natural scrub vegetation.

### ***Perennial crops***

Larger, irrigated vineyards, olive and citrus plantations are usually in intensive production with heavy chemical applications and no grazing. But plot sizes are still much smaller than in Western Europe due to the terrain, and remnants of natural vegetation often survive between fields. The main threats to these habitats are:

- excessive chemical inputs and the relatively simplified (monoculture) structure of the habitat;
- in future the intensification trend is likely to continue, with removal of remnants of natural vegetation.

### **Arable land**

Arable land includes areas of relatively intensive cereal, peanut, alfalfa and vegetable production, with remnants of natural vegetation between the fields. Grazing with sheep and goats is often part of the system. The main threats to these habitats are:

- intensive production
- in future systems are likely to become more intensive with removal of remnants of natural vegetation

### ***Steppe and pseudo-steppe***

These habitats are low intensity cereal fields with grazing and areas of grassland, on the higher, sloping, marginal land grazed by sheep and goats. The main threats to these habitats are:

- currently there are some problems with overgrazing;
- planting of open phrygana and scrub habitats with trees (in some cases with the support of the Forestry Department);
- in future, a tendency to increase inputs in cereal production and abandon extensive grazing practices.

### ***Abandoned cropland***

Abandoned land with vines, carob and olive groves being encroached upon by scrub. Much of the land now abandoned is owned by Turkish Cypriots who are refugees in the occupied, northern, half of Cyprus and it is unlikely that much of the abandoned land will come back into production unless there is a political settlement. The main threats to these habitats are:

- scrub encroachment (a study is currently under-way on the effect of abandonment on priority bird species in Cyprus<sup>37</sup>).

### ***Pastureland, especially near water courses***

Farmers, especially in remote areas, find it easier to create pastureland by burning established plants; unfortunately, this is done where the grass grows faster near watersides, which are often designated as IBAs.

## **6.4 Opportunities to create new habitats for farmland birds**

In addition to the need to address the threats to existing Annex 1 bird habitats outlined above, there is a significant case for the creation of new habitats for farmland birds generally. The following table identifies the type of farmland management, the opportunity to improve bird habitats and the birds which would benefit, preferred locations and reasons for creating new habitats.

Farm type	Opportunity to create habitats or adopt bird-friendly management	This would improve breeding or feeding areas for:
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<sup>37</sup> ref?

	<b>practices</b>	
<b>More intensively farmed areas, mainly in the lowlands:</b>	<p>potato growing - three-year rotational fallow;</p> <p>citrus/vines ploughed instead of herbicides;</p> <p>cereals - crop rotation;</p> <p>all - no ploughing of green manure crops or for weed control in spring/early summer</p>	<p><b>Annex 1:</b>  <i>Falco vespertinus</i> (migrant),  <i>Burhinus oedicephalus</i>, <i>Coracias garrulus</i>,  <i>Melanocorypha calandra</i>, <i>Oenanthe cyprica</i>, <i>Lanius minor</i> (migrant).</p> <p><b>Other important species:</b>  <i>Alectoris chukar</i>, <i>Francolinus francolinus</i>,  <i>Streptopelia turtur</i>, <i>Galerida cristata</i>,  <i>Emberiza melanocephala</i>.</p>
<b>Cereal growing areas and scrub and phrygana areas, mainly in the lowlands:</b>	<p>Grazing of cropland after harvest by sheep and goats, which helps create a pseudo-steppe habitat. Grazing is also important for maintenance of scrub and <i>Phrygana</i> habitats.</p> <p>Grazing is still widespread, but support is needed to maintain extensive grazing and should have conditions attached to ensure that flocks are small enough to prevent over-grazing.</p>	<p><b>Annex 1:</b>  <i>Gyps fulvus</i>,  <i>Buteo rufinus</i>,  <i>Falco vespertinus</i> (migrant),  <i>Circus macrourus</i> (migrant),  <i>Hieraaetus fasciatus</i>,  <i>Burhinus oedicephalus</i>, <i>Coracias garrulus</i>,  <i>Melanocorypha calandra</i>,  <i>Oenanthe cyprica</i>, <i>Sylvia melanothorax</i>,  <i>Lanius minor</i> (migrant),  <i>Emberiza caesia</i>.</p> <p><b>Other important species:</b>  <i>Alectoris chukar</i>, <i>Carduelis cannabina</i>,  <i>Galerida cristata</i>.</p>
<b>Uplands: low intensity carob and almond groves, vineyards with drystone walls</b>	<p>maintenance of traditional trees (carobs/almonds);</p> <p>maintenance of traditional bushes;</p> <p>clearing of scrub from abandoned farmland;</p> <p>maintenance of dry-stone walls.</p>	<p>Carob and almond groves and drystone walls are of value to:</p> <p><b>Annex 1:</b>  <i>Buteo rufinus</i>, <i>Hieraaetus fasciatus</i>,  <i>Coracias garrulus</i>, <i>Oenanthe cyprica</i>,  <i>Sylvia melanothorax</i>, <i>Lanius nubicus</i>,  <i>Lanius senator</i>,  <i>Lanius collurio</i> (migrant)  <i>Emberiza caesia</i>.</p> <p><b>Other important species:</b>  <i>Alectoris chukar</i>, <i>Otus scops cypricus</i>,  <i>Streptopelia turtur</i>,  <i>Hippolais pallida</i>, <i>Galerida cristata</i>,  <i>Emberiza melanocephala</i>.</p>

## 6.5 Agri-environment measures for farmland birds 2007-13

There are two current horizontal agri-environment measures of direct relevance to birds, which may not be continued in 2007-13. If these measures are dropped and additional measures proposed by BirdLife Cyprus are not adopted there will be no support available to manage farmland for the conservation of the important populations of Annex 1 farmland birds.

The prescriptions, payments rates and response of farmers to these in the 2004-06 period are described below, together with comments on each of the measures indicating how they could be adapted to be of much greater benefit to birds.

### Meeting agro-environmental standards for potatoes, citrus, wine grapes and cereals (Action 2.2.1 in the 2004-06 programme)

In the current programme this measure takes 14.6% of the total agri-environment expenditure. This crop extensification measure applies to all farming types throughout the farmed area, and is likely to benefit both Annex 1 and other farmland birds<sup>38</sup>

<sup>38</sup> *Falco vespertinus*, *Burhinus oedicephalus*, *Coracias garrulus*, *Melanocorypha calandra*, *Oenanthe cyprica*, *Lanius minor*, *Alectoris chukar*, *Francolinus francolinus*, *Streptopelia turtur*, *Galerida cristata*, *Emberiza melanocephala*.

There are separate requirements for different crops, but these have not been equally successful:

Cereals: return to a 2 or 3-year crop rotation (use of *Leguminosae* plants or fallowing at least on the third year); if fallowing, the farmer must plough twice a year (once late in autumn or early in Winter and once early in Spring); if legumes are chosen specific plants can be cultivated, and green manure can be used voluntarily.

Potatoes: a three year rotational fallow system (one year potatoes, one year other annual cultivation besides *Solanaceae* and one year obligatory fallowing and application of green manure); integrated farming (correct use of water and fertilisers and combined use of natural and chemical pesticides)

#### Comments

The payment rates are in some cases too low. For cereals up to €230/ha per year for 2-3 year crop rotation is sufficient to cover loss of earnings, but for potatoes €700/ha per year for 3-year crop rotation does not cover loss of possible earnings of €1630.96/ha, and for integrated farming €400/ha does not cover possible loss of €660/ha. The measure is positive in that it reduces chemical inputs and leads to less intensive management, but it would be of much greater benefit to birds if the management requirements were improved by, for example:

- timing the ploughing-in green manure and ploughing to control weeds to avoid the bird breeding season - it should be prohibited in spring and early summer;
- to optimize the value of fallow land for birds, about 50% of each fallow field (alternate strips) should be ploughed in autumn while the other 50% of the field should be ploughed in late winter. This will create a mosaic of vegetated and open areas in fallow fields, providing both good nesting areas and good autumn and winter-feeding areas;
- ploughing should be non-inversion tillage (conservation ploughing);
- a strip around the periphery of each fallow field should be ploughed in both autumn and late winter to minimize the spread of weeds;
- weeds should never be controlled by spraying or fire;
- green manure crops should be cut and ploughed in by the end of February at the latest to allow ground-nesting birds to use the fields after this date.

Citrus: using ploughing instead of herbicide to control weeds, in spring and summer; the rate of €300/ha per year (or €600/ha if the ploughing is done twice) covers loss of earnings; integrated farming (correct use of water and fertilisers and combined use of natural and chemical pesticides); the maximum payment of €300/ha does not cover loss of possible earnings €1150/ha.

Wine grapes: using ploughing instead of herbicide to control weeds; ploughing is done from February till March after pruning. Payment rates of €700 per ha per year for ploughing (€900/ha per year in LFAs)

#### Comments

The measure is beneficial for birds because it reduces chemical inputs but could be improved if ploughing to control weeds was not carried out during the breeding season (March to July) and, to minimize soil erosion, if all ploughing was contour ploughing and strips of unploughed land were left on steeper slopes.

### **Conservation of the natural value of the agricultural environment and the traditional landscape with emphasis on the Less Favoured Areas** (Action 2.3.1 in the 2004-06 programme)

This measure takes 5.3% of the total agri-environment expenditure and applies to all farmland, with priority given to LFAs (60% of the total farmland area that is under the control of Cyprus Republic). It is likely to benefit Annex 1 and other farmland birds<sup>39</sup>. Where

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<sup>39</sup> including Annex1: *Buteo rufinus*, *Hieraaetus fasciatus*, *Coracias garrulus*, *Oenanthe cyprica*, *Sylvia melanothorax*, *Lanius nubicus*, *Lanius senator*, *Lanius collurio*, *Emberiza caesia*. Other important species *Alectoris chukar*, *Otus scops cypricus*, *Streptopelia turtur*, *Hippolais pallida*, *Galerida cristata*, *Emberiza melanocephala*.

traditional extensive management survives, the changes in management would not be very significant, but on many abandoned areas management would have to be reinstated.

Requirements include:

- maintenance of traditional varieties/species of almonds, carobs etc in environmentally friendly ways (including ploughing, weeding, arboriculture). €700/ ha per year for tree planting/maintenance provided that the number of trees is more than 100/ha (except for olive-trees);
- planting and/or maintenance of traditional bushes (roses/aromatics including *Rosa damaskina* and natural flora such as hawthorns and oaks). €350/ha per year for bush planting/maintenance and annual removal of 'undesirable' vegetation from abandoned land as a fire control measure combined with other measures relevant to fire prevention, which involves ploughing, and maintaining a 3m-wide firebreak. €350/ha per year for bush planting/maintenance and fire control actions.
- building and maintenance of dry-stone walls in environmentally friendly ways. €1150/ ha for dry-stone wall repair.

#### *Comments*

The maintenance of traditional varieties of fruit trees and of native bushes will benefit birds by maintaining and extending their preferred habitat and nesting sites. The stonewall measure is very beneficial for some farmland species like *Sylvia melanothorax* because it provides additional nesting sites and this measure was enthusiastically received by farmers (in fact the original budget had to be re-assigned to include more applicants).. It is not clear what impact the fire control measure will have on farmland birds. There is a need to examine the impacts of this measure on farmland birds and more generally on biodiversity conservation. Is a probably largely beneficial scheme, though the impact of scrub encroachment for priority bird species in Cyprus is unclear. To maximise benefits to birds and value for money:

- o priority for this scheme should be given to marginal areas, farmland 'target areas' and to farmland within NATURA 2000 sites and Important Bird Areas;
- o the scheme should focus on providing payments for environmentally friendly maintenance of carobs, almonds and other traditional trees, all of which are of high wildlife value;
- o payments should continue to be given for retaining traditional bushes (e.g. aromatics and *Rosa damaskina*) but not for maintaining remnants of natural vegetation within farmland, which should instead become mandatory under GAEC rules (see section \*\*). Control of invasive vegetation and ploughing to create firebreaks should also become a GAEC obligation and not be subsidized under this scheme;
- o support for repair of dry-stone walls should continue.
- o biodiversity indicators should be introduced and used for assessing the scheme.

#### **6.6 Additional agri-environment measures which would benefit Annex 1 and other farmland birds**

BirdLife Cyprus has proposed three new agri-environment schemes designed for the benefit of birds but which would also have significant benefits for other characteristic native plants and animals of farmland. The Ministry of Agriculture appears to have rejected these proposals despite support from government officials. The proposed schemes are:

- o wildlife set-aside within fields used for cereal potato and market vegetables
- o conservation field margins
- o extensive grazing

The objectives, benefits, zoning and management requirements for each of the three schemes are described below.

##### *.Wildlife set-aside within fields used for cereal potato and market vegetables*

**Priority zones and types of farming:** Cereal and potato (or market vegetable) growing areas, with priority given to farmers in intensive growing areas, NATURA 2000 sites and the Akamas, Xeros, Diarizos, Pafos plain and Panagia IBAs.

**Purpose:** within these intensively farmed areas the aim would be to withdraw between 10% and 25% of the farmer's total arable land from production for at least five (and preferably seven) years and manage it to create semi-natural grassland, as a refuge for wildflowers, insects, mammals and birds. The land would continue to qualify for SAP/SFP direct payments as part of an agri-environment scheme.

**Priority bird species likely to benefit** from this scheme are: Bonelli's eagle (*Hieraaetus fasciatus*), Long-legged buzzard (*Buteo rufinus*), Pallid harrier (*Circus macrourus*), Red-footed falcon (*Falco vespertinus*), Chukar (*Alectoris chukar*), Black francolin (*Francolinus francolinus*), Stone Curlew (*Burhinus oediconemus*), Cyprus scops owl (*Otus scops cyprius*), Roller (*Coracias garrulous*), Calandra lark (*Melanocorypha calandra*), Cyprus wheatear (*Oenanthe cypriaca*), Lesser grey shrike (*Lanius minor*), Masked shrike (*Lanius nubicus*) and Cretzschmar's bunting (*Emberiza caesia*).

**Management requirements:** farmers should take one field, or part of one or more fields, out of production for a minimum of seven years. The total area withdrawn from production in this way should be between 10% and 25% of the farm area. Uncropped field boundaries and verges should not be included when calculating the area to be managed as wildlife set-aside, although these areas could be entered under the proposed scheme for conservation field margins (see below). If only part of a field is withdrawn from production under the scheme, then the set-aside area should be created on the margins or through the centre of the field, but should always be a non-fragmented, single block of land. The area withdrawn should be managed as follows:

- no chemical applications, ploughing, cultivation or sowing of crops;
- the only management should be mowing (strimming) or grazing (by sheep and goats) once a year, between August and January. If mowing is used, then the field or area should be mown at different times in stages, to create a mosaic of grassy and cut areas;
- on more fertile land, mown cuttings should be collected and removed, whereas on poorer soils the cuttings should be left;
- any invasive non-native vegetation (such as acacias or eucalyptus) should be removed from the set-aside area as soon as detected;
- a 'sterile' strip 1 metre wide should be maintained around the perimeter of the set-aside area, to prevent the spread of weeds into crops and for fire prevention. This 'sterile strip' should be kept free of vegetation by being ploughed over two or three times a year, but not during the bird breeding season (March to July).

**Payment levels** should cover compensation for loss of production and the cost of strimming (including the purchase of the necessary strimmer equipment, if needed).

#### *Conservation field margins*

**Priority zones and types of farming:** cereal and potato (or market vegetable) growing areas, with priority given to organic farmers and farmers in intensive growing areas, NATURA 2000 sites and the Akamas, Xeros, Diarizos, Pafos plain and Panagia IBAs

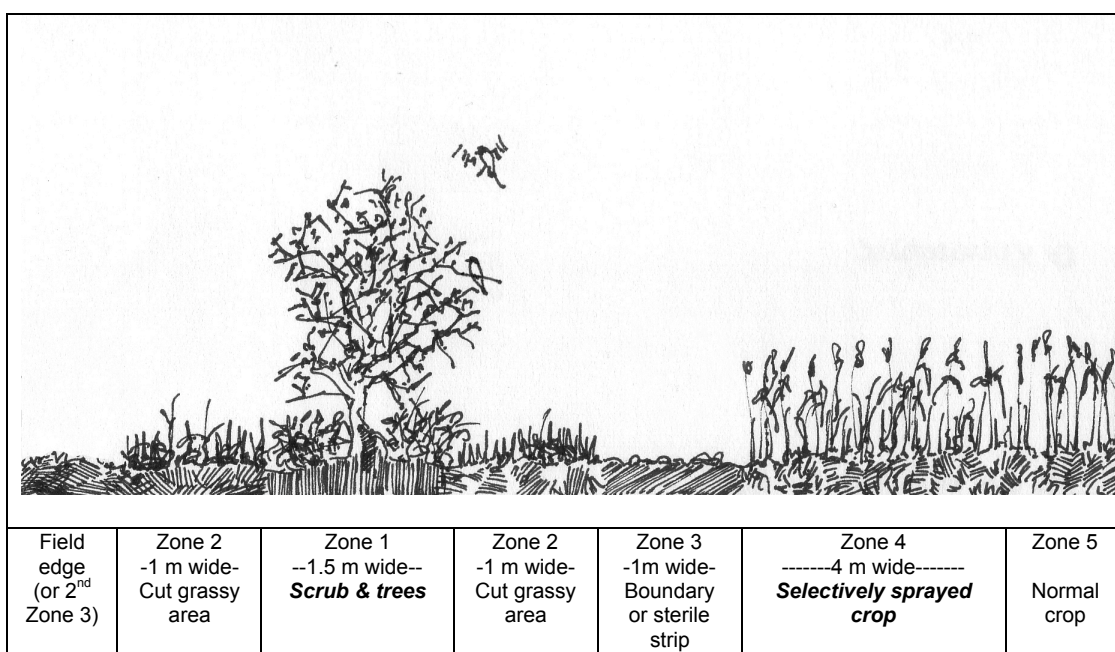
**Purpose:** to create new areas of chemical-free natural vegetation, including trees and shrubs around and within fields in intensively farmed areas to meet the needs of farmland birds for more varied habitats and reduced levels of pesticides and herbicides .

**Priority bird species likely to benefit;** 13 priority bird species would benefit by increasing availability of seed, insect and mammal food: Bonelli's eagle (*Hieraaetus fasciatus*), Long-legged buzzard (*Buteo rufinus*), Red-footed falcon (*Falco vespertinus*), Chukar (*Alectoris chukar*), Black francolin (*Francolinus francolinus*), Cyprus scops owl (*Otus scops cyprius*), Roller (*Coracias garrulous*), Cyprus wheatear (*Oenanthe cypriaca*), Cyprus warbler (*Sylvia melanothorax*), Lesser grey shrike (*Lanius minor*), Masked shrike (*Lanius nubicus*), Black-headed bunting (*Emberiza melanocephala*) and Cretzschmar's bunting (*Emberiza caesia*).

**Management requirements;** GAEC cross-compliance rules should require farmers to retain and sympathetically manage any existing remnants of natural vegetation within their land (see \*\* below). This scheme goes beyond that to create new areas of valuable natural habitat within the holding. The following management requirements should apply for at least five (and preferably seven) years to allow time for the field margin scrub and trees to establish and grow and thus provide benefits for wildlife:

- the farmer, assisted by an agriculture department advisor, should map out on a 1:5,000 scale map all areas of remnant natural vegetation (verges, scrub patches, isolated trees, etc) on his land. This map will form the basis for creating new conservation field margins and allow payment levels to be accurately calculated, as 'establishment' and 'loss of earnings' payments should only be given for new areas of conservation field margins;
- new conservation field margins are most conveniently created on field peripheries, but may alternatively (or additionally) be created across the middle of larger fields. and can adjoin areas of existing remnant natural vegetation, scrub and/or trees;
- to create a new conservation field margin by removing a 4.5-metre wide strip of land from cultivation, planting it up and managing it as illustrated in Figure \*\* below;
- the minimum length of any given parcel of conservation field margin must be 10 metres (maximum length will be dictated by field size); minimum total length of conservation field margins on any farm plot managed under the scheme must be 40 metres and proportion of any participating farmer's land managed as conservation field margins must be between 5% and 25%, including areas of pre-existing natural vegetation;
- where a new field margin incorporates existing areas of marginal or other woody vegetation these should not be cut back in order to "shape" the new field margin. Instead, the shape of the new field margin should be adapted to fit in with existing vegetation;
- where conservation field margins include existing drainage ditches on field boundaries, clearing of vegetation around these ditches should not take place between March and July.

**Figure \*\* Cross-section of conservation field margin layout<sup>40</sup>**



**Payment rates** should cover establishment (planting), management costs and loss of earnings due to lost production potential. Participants in this scheme should also be encouraged to participate in - and be given priority when applying for - other agri-environment

<sup>40</sup> based on Hill D.A., Andrews J., Sotherton N.W. & Hawkins J. in Sutherland W.J. & Hill D.A. (1995). *Managing Habitats for Conservation*. Cambridge University press.

schemes including the current schemes for natural/traditional landscapes, agri-environment for cereal/potato/viticulture and citrus, organic and the proposed scheme for wildlife set-aside (above).

#### *Extensive grazing*

**Purpose:** to support the traditional extensive free-range grazing by sheep and goats needed to maintain open habitats which are at risk of abandonment because of the high labour costs and low productivity of this method of production.

**Priority zones:** the scheme should be made available to all shepherds grazing goats and sheep in the traditional manner, but priority should be given to shepherds in:

- IBAs: Xeros valley, Diarizos valley, Pafos plain and Akamas. Additionally, shepherds in the Cape Aspro-Pissouri area should be given priority when applying for this scheme, as this area is very important for the Griffon vulture; and
- target areas of high biodiversity grazing land that are not completely covered by the NATURA 2000 network. The grazing areas can be broadly defined as all areas of *Sarcopoterium spionusum phrygana* (habitat code 5420 in Annex I of the EU Habitats Directive).

**Priority bird species likely to benefit** are those that favour the open habitats created by traditional, extensive grazing and browsing by goats and sheep: Griffon vulture (*Gyps fulvus*), Bonelli's eagle (*Hieraaetus fasciatus*), Long-legged buzzard (*Buteo rufinus*), Pallid Harrier (*Circus macrourus*), Red-footed falcon (*Falco vespertinus*), Chukar (*Alectoris chukar*), Stone curlew (*Burhinus oedicephalus*), Roller (*Coracias garrulus*), Calandra lark (*Melanocorypha calandra*), Cyprus wheatear (*Oenanthe cyprica*), Lesser grey shrike (*Lanius minor*).

#### **Management requirements:**

- keeping small flocks of sheep and goats with no more than 100 animals per herd (fewer if the land available for grazing is limited) on a defined free-range grazing area
- grazing and browsing must always be supervised by a shepherd, to ensure that no parts of the area are undergrazed or overgrazed;
- no pasture improvement, removal of rocks, cultivation, seeding or fertilization;
- participation in the anticipated 'National vulture rescue plan' (still in the planning stage at the time of writing) by providing goat and sheep carcasses for vulture feeding stations;
- a requirement not to use fire as a pasture management tool should be included in Good Agricultural and Environmental Condition and enforced (but not paid for) as part of this scheme.

**Payment rates** should cover the cost of employing a shepherd and the loss of income from lower productivity and limited flock size. Free range grazing still exists but, because the grazing land is generally not owned by the farmer, the payments and management requirements cannot be attached to land in his control. To maintain these extensive systems it will be necessary to pay on the basis of the flock with a premium rate for Cyprus fat-tailed sheep, and a requirement to graze extensively at about 10 animals per ha. Such a scheme could usefully be coupled with an extension until 2009 of the 2004-06 RDP measure 'Special support for meeting EU standards in sheep/goat's milk' (measure 2.1 in the "old" RDP).

#### *Other proposals*

In addition to the three schemes described above other new measures proposed by environmental experts for the benefit of farmland bird habitats in IBAs and more widely in 2007-13 include:

- a Special Environmental Plan for subsidising *Leguminosae* at altitudes over 300m to benefit birds living at higher altitudes, as they would no longer need to go to the lowland plains for food; and
- an agri-environment payment for delaying the harvest of cereals to avoid the destruction of nests and eggs which could apply to IBAs 1,2,3,4 and be of benefit to

farmland birds generally if applied more widely, by giving chicks the opportunity to survive and reach adulthood.

## **6.7 Natura 2000**

Although 50% of the UAA in Cyprus is classified as high nature value land only 1% of this has been proposed for Natura 2000 designation, as a direct result of local opposition which led to all privately owned land (including most farmland) being taken out of the designation proposals. Agri-environment schemes targeted at the biodiversity management of all the high nature value land would be the most effective way of implementing the EU requirement to use Axis 2 funds to contribute to biodiversity and protect and develop high nature value farming.

## **6.8 Impacts of other Axis 2 measures on farmland birds**

*Organic farming (e.g. grapes, oranges, potatoes etc.)*

The effect of organic farming on birds is generally positive, especially for insect-eating birds such as Roller, Masked shrike, Cyprus wheatear, Cyprus warbler, Calandra lark, Lesser grey and Red-backed shrikes (on migration) and in IBAs 1-5, although the extent of organic farming is currently too low to have any serious impact, and is limited by the small size of the market for organic products in Cyprus.. Organic products are promoted to supermarkets and other outlets and may gain a larger share of the food market, which would be of benefit to these birds. For this measure to be effective it may need to be combined with others, especially LFA payments, to support the labour force required for organic production.

*Afforestation of farmland*

The impact of this measure on birds is not clear but tree planting in could be very damaging for open-landscape species such as Griffon vulture, Stone curlew, Calandra lark. Applications for afforestation should not be approved on high nature value farmland habitats and exotic species should not be planted.

*LFA support*

To comply with the Commission's Guidelines on Axis 2 support it is important that LFA supports is only available for extensive management and should be conditional on no increases in chemical inputs or field size.

## **6.9 Negative impacts of Axis 1 measures farmland birds**

*Axis 1 - investment in modernisation of agriculture*

This RDP support, to be continued in 2007-13, is likely to lead to intensification of farming, with negative impact on Annex 1 birds primarily affecting those species using areas of mixed traditional farming such as *Lanius nubicus*, *Coracias garrulous*, *Oenanthe cyprica*, *Sylvia melanothorax*, *Buteo rufinus*, and *Emberiza caesia*. Applications for these investments within IBAs 1-5 should only be approved if they have the support of government environmental advisers, and improvement of pastures should not be supported on high nature value farmland, as this will degrade the existing habitats.

## **6.10 National Strategy and budget allocations for 2007-13**

The proposed allocation of EAFRD funding (at the time data was collected for this report) was: Axis 1 – 43%; Axis 2 – 42% (21% agri-environment, 17% to Water Framework Directive Schemes, Natura 2000 and LFA)

This proposed share of the EAFRD budget for agri-environment in 2007-13 is less than the proportion spent on agri-environment in 2004-06 and significantly less than the total required

to deliver agri-environment support for high nature value farming from 2007, particularly when Natura 2000 payments are unlikely to be available for farmland.

In the absence of Natura 2000 protection for the large areas of high nature value farmland in Cyprus (including \*\* ha within IBAs) it will be particularly important that adequate funds are allocated to agri-environment measures which will ensure the protection and development of low - intensity management on this land, which is threatened by abandonment and intensification. It is not clear if this will be a priority for agri-environment funding and specific issues raised by the experts contributing to this study include concerns:

- that lack of support among the farming community for Natura 2000 designation will mean that priority is not given to agri-environment schemes targeted at high nature value management in these areas;
- that beneficial measures such as those for low-intensity crop production and maintenance of stone walls may be dropped, or their payment rates not adjusted to cover costs;
- that new measures proposed by BirdLife Cyprus will not be adopted;
- that agri-environment funds will continue to be used to pay for management which should be a requirement of GAEC

### **6.11 Agri-environment and Good Agricultural and Environmental Condition**

If properly defined and enforced Good Agricultural and Environmental Condition cross-compliance can safeguard the non-farmed areas and small landscape features which are so important for farmland birds, and protect semi-natural habitats from damage or destruction, leaving agri-environment schemes to pay for their management, restoration and improvement. The Cyprus Good Agricultural and Environmental Condition cross-compliance measures for 2007-13 have not been announced and it is not clear if they will fulfil this important role of protecting the many small but important habitat features for birds.

The current definitions of GFP are, at least in theory, good for birds but in practice there is little or no benefit on the ground because GFP is not widely applied - so far it is at an 'experimental' level. Although GFP guidelines include protection of habitats the main concern of the control procedures has been with the application of pesticides (dose, frequency of use, time etc) and nitrification; there is no specific evaluation on the impacts on birds or their habitats.

In addition to the requirement to protect areas of semi-natural vegetation there are other requirements now in GFP that could be of benefit to birds if transferred to Good Agricultural and Environmental Condition and properly enforced; these include:

- reduction of fertilisers and pesticides;
- maintenance of pasture land;
- no burning of vegetation to 'prepare' pastureland (this is prohibited to protect soils from erosion but burning is a significant threat to grassland habitats in IBAs, and to also forests - 20% of forest fires in Cyprus for the period 2000-2005 were attributed to agricultural activities);
- cutting new growth to achieve a satisfactory cover of annual vegetation;
- avoiding over-grazing.

### **6.12 Opportunities to use other EAFRD measures to support agri-environment management for farmland birds**

*Axis 3 - Article 57a - Conservation and upgrading of the rural heritage - drawing up of management or protection plans for NATURA 2000 sites.*

The preparation of protection and management plans for key wildlife sites is one of the key nature conservation challenges Cyprus will face over the 2007-13 period and this measure could be an important source of funds. These plans will be critical for establishing long-term management strategies, the legal framework, minimum operating conditions and the necessary restrictions and practices to be compensated. They will also be an important source of guidance for other business activities that could bring wider socio-economic

benefits to the local economy. Guidelines will need to be carefully drawn-up to ensure only qualified persons are involved in preparing management plans and that the preparation of these plans is in keeping with the relevant provisions of the Birds (79/409/EEC) and Habitats Directives (92/43/EEC) and with the principle of full stakeholder participation.

### *Axis 3 - Article 52a ii) and Article 55*

This measure provides funding for government departments, individuals and local authorities to provide small-scale infrastructure (information centres and signposting of sites of interest), access paths and small-capacity accommodation (through restoration of abandoned village houses) and for the development and marketing of tourism services in NATURA 2000 sites. All such funding would need to be subject to a rigorous environmental impact assessment study in order to ensure the proposed development has no adverse impact on protected habitats or species.

## **6.13 Delivery and evaluation of agri-environment measures**

### *Delivery*

Cyprus had no previous experience of agri-environment schemes prior to the 2004-06 programme - SAPARD was not used. Farmers have been irritated by late payment of agri-environment support, but whether this delay will eventually create a negative attitude towards the measures in the future or not probably depends on how long it continues.

There is a perception among farmers that agri-environment is just another EU requirement, and they have little understanding of the environmental objectives. An interview survey<sup>41</sup> in 2005 of key people involved in the agri-environment programmes revealed that farmers could not readily understand the commitments required and were concerned about the impact on their income; they felt that they were not adequately consulted at the design stage of the scheme, which was mainly presented through the media (TV, radio etc) and not accessible to everyone; some modifications to the scheme were made after strong representations.

The Department of Agriculture employs agronomists and private companies to inform farmers about rural development schemes, and although their job requirement includes knowledge of environment conservation issues, they generally do not have the expertise to make judgements about habitat management for birds. The paying agency Cyprus Agricultural Payments Organisation (CAPO) runs the Farmer's Service Centre providing informative material, application forms and instructions for the rural development measures<sup>42</sup> and controls compliance and applies penalties. Despite this system for providing them with information, farmers generally do not have sufficient information about birds and their habitat requirements, and no bird conservation experts are used to train either farmers or their advisers.

A recent study of the implementation of agri-environment measures in the EU made the following recommendations for Cyprus:

- the Environment Service and other stakeholders should be more substantially involved in the review of the measures for the 2007-13 programme;
- it is of major importance that both farmers and the general public are convinced that agri-environment measures are needed to tackle serious environmental problems (and are not simply a subsidy - there is a misconception among farmers that the agri-environment measures were implemented not as a response to environmental problems but as obligation of Cyprus to the EU);
- the staff resource involved in the overall implementation of the agri-environment measures should be increased and properly trained;

<sup>41</sup> Oréade-Brèche (2005) *Evaluation Des Mesures Agro-Environnementales Agri/ G4/ 2004 Annexe 21: Etude Nationale Chypre* [http://ec.europa.eu/agriculture/eval/reports/measures/index\\_fr.htm](http://ec.europa.eu/agriculture/eval/reports/measures/index_fr.htm)

<sup>42</sup> Cyprus Agricultural Payments Organization, general leaflet '*Informative Publication*' Available online from: [http://www.capo.gov.cy/capo/capo.nsf/DMLpublications\\_en/DMLpublications\\_en?OpenDocument](http://www.capo.gov.cy/capo/capo.nsf/DMLpublications_en/DMLpublications_en?OpenDocument) [Accessed 8/7/2006]

- agri-environment measures could be improved, especially those related to areas within the NATURA 2000 network - with the assistance and cooperation of those involved with such programs;
- agri-environment funding is not sufficient to allow the implementation to the desired level;
- educating the farmers and the general public about environmental issues is an integral part for the successful implementation of the agri-environment measures and this should continue<sup>43</sup>.

### *Evaluation*

For the 2004-06 RDP there are no proposals to use any kind of biodiversity indicators to evaluate agri-environment schemes or any other measures, and Annex 1 species and their habitats are not taken into account. Some studies have been done in IBAs/SPAs on the status of birds, by the Game Fund and Birdlife Cyprus, but none covers the whole area over which the measures are implemented).

The arrangements for 2007-13 programme are not yet known but it will be important to ensure that agri-environment schemes are evaluated for their impact on farmland birds, especially the important Annex 1 species.

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<sup>43</sup> Oréade-Brèche (2005) op.cit.

## 7 The Czech Republic

### Important note on data:

Unless other sources are cited the information in this chapter is from a questionnaire survey of local experts in spring/summer 2006, when the proposals for the 2007-13 programme were not finalised. The following information was the best available at the time but may no longer be up-to-date.

### Key points for the Czech Republic 2007-13

#### *Are bird conservation priorities adequately addressed in the objectives, targeting and funding of the 2007-13 RDP?*

The long tradition of nature conservation in the Czech Republic is reflected in close co-operation between the Ministry of Agriculture and environmental experts, a well designed agri-environment programme for 2004-06 and the high priority given in the National Strategy to the conservation of permanent grasslands habitats both within Natura 2000 sites and on unprotected farmland.

The success of agri-environment schemes depends on adequate payment rates and budget allocations. Axis 2 will be allocated more than half the 2007-13 budget and a significant proportion of this will be spent on agri-environment. Compared to the current programme a larger total agri-environment budget will be needed because:

- the funds allocated to grassland agri-environment measures will probably be adequate to cover semi-natural grasslands, but may need to be increased to extend bird friendly measures (such as unmown strips) to the much larger area of improved grassland
- significant additional funding will be needed for the arable measure for winter bird feed strips, compared to 2004-06
- the needs of farmland birds could be given more priority in agri-environment schemes for arable land which, in the current programme, are principally targeted at controlling pollution and soil erosion. Additional benefits for farmland birds could be achieved by special arable measures but these would need extra funds.

The proposal to use the population index of selected farmland birds as an impact indicator for both Axis 2 and the RDP as a whole deserves support, and should enable the schemes to be adjusted, if necessary, to maximise benefits to biodiversity during the life of the programme. Farmland birds are already in serious decline in the Czech Republic and the Farmland Bird Index has dropped by 21% in just three years, from 2000-2003.

#### *Is the design of agri-environment schemes and measures fit for the purpose of safeguarding and managing farmland habitats for bird conservation priorities?*

The Czech Republic has used SAPARD and the 2004-06 programme to develop and refine a wide range of agri-environment measures, some specifically targeted at Annex 1 birds such as Corncrake, which have been designed with the benefit of expert advice.

Additional benefits to farmland birds could be achieved by

- adding arable measures targeted at birds such as retaining winter stubble, conservation headlands and strips (unsown and/or managed without chemicals)
- adding a measure to encourage sheep grazing on dry semi-natural grasslands, which would apply to a relatively small area but could benefit birds

#### *What are the barriers to delivery of appropriate, targeted and effective agri-environment measures where they are needed for bird conservation priorities?*

Administration is efficient and well planned, and farmers are provided with information and advice from a variety of sources - seminars, publications, internet; farmer training is not a compulsory element of agri-environment contracts.

Two reports have concluded that farmers need a better understanding of agri-environment

measures if the programme is to be effective.

The farmers in national parks and protected landscape areas now receive better quality environmental information and advice compared to farmers elsewhere, because staff in these areas have been trained by environmental experts.

In the wider countryside the environmental skills of Ministry of Agriculture advisory staff are perceived to be very low, and effective expert training will be required to remedy this.

*What is the effect of other CAP policies on the delivery of effective agri-environment schemes for bird conservation*

The risk of Axis 1 farm investments damaging farmland bird habitats could be reduced if:

- the criteria used to assess applications included an evaluation of the impact on environmentally friendly farming (AOPK has done work on this);
- drainage proposals required approval from nature conservation authorities, to protect wet grassland used by Corncrakes and waders.

The risk of Axis 2 afforestation destroying farmland bird habitats could be avoided if afforestation was restricted to arable land and if the opinion of the nature conservation authority required on all proposals (not just those > 0.5 ha).

Two proposed changes to Good Agricultural and Environmental Condition Corncrakes would be of particular benefit to birds:

- mowing all grassland from the middle outwards, or from side to side, would benefit Corncrakes and raptors feeding on small mammals;
- protection of small landscape elements and watercourses will benefit all farmland birds.

The way in which the current Good Agricultural and Environmental Condition requirement for permanent grassland is defined at an individual farm level (maintaining an area at least 95% of the 2005 reference level) does not protect all species-rich grasslands from ploughing up and puts bird habitats at risk.

## **7.1 Agriculture in the Czech Republic**

Agricultural land covers just over half of the total area of the Czech Republic and around 75% of this is arable land. Soil erosion by water is a major problem. Half the farmland is classified as Less Favoured Area and 6% is in organic production. There is an unusually large proportion of tenanted land, often farmed in large units by businesses (average 1,500 ha). Privately owned farms account for only about one quarter of the land and are much smaller - about 40 ha.

## **7.2 Annex 1 farmland birds in the Czech Republic**

The Czech Republic's farmland accounts for less than 3% of EU farmland but it provides breeding and feeding grounds for eight of the twenty Annex 1 farmland birds targeted by BirdLife for support through agri-environment schemes. Of these, six are of unfavourable conservation status in Europe - Night heron, Purple Heron, White Stork, Corncrake, Great Bustard, Imperial Eagle - and the latter three species are also of global conservation concern.

The nineteen IBAs important for farmland birds are almost all grasslands of various types (including improved grassland) and all have been designated as Natura 2000 sites. There is a total of about 100,000 ha of farmland in these SPAs. It is estimated that in the country as a whole there are about 40,000 ha of species rich grassland and a further 300,000ha of partly degraded semi-natural grasslands (mostly as a result of fertilisation)<sup>44</sup>. Farmland birds are already in serious decline in the Czech Republic and the Farmland Bird Index dropped by 21% in just three years, from 2000-2003<sup>45</sup>.

<sup>44</sup> Ref,,,,, Annex to 2007-13 national strategy

<sup>45</sup> Eurostat

Please see Annex \*\* for more details of important farmland birds and their habitats in the Czech Republic.

### 7.3 Threats to existing habitats for Annex 1 and other farmland birds in the Czech Republic

#### **Permanent wet grassland**

These grasslands are used as seasonal pastures for cattle or mown for hay if the weather permits. As a result of previous drainage they are now mostly found in the mountains (but new wet grasslands are being created by restoration projects). Wet grassland habitats are important for both Corncrake and White Stork and bird friendly management requires mowing from the middle to the edge late each year using light machinery. Threats to these grasslands include:

- abandonment, followed by loss of the grassland habitat through natural colonisation by scrub and trees
- high stocking densities which can lead to nitrification of the grasslands, disturbance of birds and loss of native grassland plants
- changes to the hydrological regime either by drainage or flooding

#### **Arable land**

Arable land, much of it intensively managed, is the predominant use of farmland In the Czech Republic. The National Strategy notes that the downward trend in farmland bird populations for the past 20 years was briefly reversed In the early 1990s, with the decreased intensity of farming which accompanied the political and economic changes of the time (species which temporarily recovered included quail, red-backed shrike and whinchat)<sup>46</sup>.

Threats to birds of arable farmland include the increasing use of winter cereals which is reducing the area of over-wintered stubble - an important food source for more common farmland birds such as the Yellowhammer<sup>47</sup> which is one of the species used for the PECBM index of farmland bird populations.

#### **Dry grasslands**

These grasslands are mostly farmed by tenant farmers and used as seasonal pastures (usually for cattle) and as meadows for hay. Some of the unimproved grasslands are shared grazing areas. Like the wet grasslands these are important for both Corncrake and White Stork and ideally the meadows would be mown from the middle to the edge after mid-August and grazing would not start until August (or the most important parts would be fenced of until then). But from the farmers' point of view this bird-friendly management wastes the best grazing and produces very poor hay. Threats include:

- abandonment of unimproved grasslands, followed by loss of the grassland habitat through natural colonisation by scrub and trees; without support these areas would be abandoned;
- earlier mowing and grazing;
- increased fertiliser use;
- too intensive grazing.

### 7.4 Opportunities to create new habitats for farmland birds

In addition to the need to address the threats to existing bird habitats outlined above, there is a significant case for the creation of new habitats for farmland birds generally. The following table identifies the type of farmland management, the opportunity to improve bird habitats and the birds which would benefit.

Farm type	Opportunity to create habitats or adopt bird-friendly management practices	This would improve breeding or feeding areas for:
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<sup>46</sup> Ref ....Annex to Nat StratPlan 07-13

<sup>47</sup> *Emberiza citrinella*

grassland	mowing from the middle to the edge or from one side to the other	Corncrake and other ground nesting birds and raptors which hunt small mammals
dry meadows	sheep grazing (there are very few sheep left in the Czech Republic)	all birds using short grass meadows
arable land	winter stubbles	farmland birds generally

## 7.5 Agri-environment measures for farmland birds 2007-13

The current agri-environment programme is based on pilot schemes developed using SAPARD and other funding, and has nearly 30 different measures in three main sections - organic farming, grassland measures, and landscape conservation (including arable measures) plus a suite of special measures for farms in a small cave protection area. Almost two thirds of the land in agri-environment schemes is grassland, and 72% of the permanent grasslands in the Czech Republic are under agri-environment management, mainly in schemes to reduce the use of pesticides and mineral fertilisers<sup>48</sup>. The area of land managed under schemes targeted specifically at birds is much smaller and is concentrated in areas important for birds, irrespective of the protection status of the land.

### *Zonal grassland measures for birds*

These schemes have been carefully designed with the help of environmental experts and are targeted both at SPAs and at other important localities, identified by nature conservation authorities as important for breeding Corncrake and waders or having Natura 2000 biotopes:

- a scheme for **extensive grassland management for Corncrake** is working well;
- a similar scheme for **breeding waders** was unpopular with farmers but changes have been made to mowing dates and payment rates for 2007-13 to address this.
- other measures including **late mowing of dry species-rich grassland**, and **hand mowing of wet grasslands** will prevent intensification or abandonment of these grasslands, and are designed to benefit birds, but late mowing and disposal of grass causes significant problems for farmers and future uptake will depend on payment rates taking account of this. These measures are more acceptable on less intensive upland grasslands

It has been pointed out that payment rates for some less-popular measures on marginal grasslands have been calculated on the basis of production lost through reduced fertiliser use - but in fact these grasslands would have been abandoned if agri-environment payments were not available, so payments should reflect the total cost to the farmer of mowing, grazing and other management. If payment rates were recalculated in this way the uptake would improve.

### *A potential horizontal grassland measure*

A measure for **unmown strips within grass fields**, managed on a rotational basis from year to year, has been tested in the Bile Karpaty Protected Landscape Area and could be of great benefit to plants, insects and farmland birds if it was a horizontal measure available on all 900,000 hectares of grassland in the Czech Republic. It requires managing 5-10% of a grassland field each year as an undisturbed strip 6-12 metres wide, with out fertilisers or grazing and left unmown until the following spring.

### *Horizontal arable measures*

A measure designed to provide **winter food for birds** (originally Partridge, which are hunted) with strips 6-12 metres wide within arable fields sowing with a crop mixture including buckwheat, millet and other selected crops, and left unmanaged until the following spring; if made a horizontal measure this potentially would be of benefit to seed eating birds on 2.6 million hectares of arable land, but the existing scheme has had poor uptake because the payment rates do not cover the disruption to farming activities in the rest of the field.

Another horizontal measure to create **grass strips in arable fields**, which had almost no uptake (only three farmers were interested), was designed to combat erosion but if farmers

<sup>48</sup> Ref...annex to Nat Strat

could be persuaded to adopt it in intensive arable land it also could benefit farmland birds (if appropriate seeds mixes and management were prescribed).

## **7.6 Natura 2000 compensation payments and agri-environment schemes**

### *Legal restrictions*

There are legal restrictions prohibiting the use of fertilisers in parts of protected landscape areas and National Parks but not yet on farmland in SPAs.

### *Payments in Natura 2000 areas*

Compensation payments for legal restrictions, when they are in place, will take only a small proportion of the Axis 2 budget in 2007-13 but agri-environment measures such as the zonal measures for permanent grasslands aimed at Corncrake and other birds should meet the management needs of SPAs. Other agri-environment schemes have special options for protected sites - for example using regional grass seeds mixes where arable land is converted to grassland.

## **7.7 Negative impacts of Axis 2 measures on farmland birds**

### *Afforestation of farmland*

Where grasslands are converted to forests all meadow birds will be affected by the loss of habitat. Afforestation of small parcels (<0.5ha) currently does not require consultation with nature conservation authorities but can still harm some valuable habitats.

### *Less Favoured Areas*

Current LFA requirements can conflict with Corncrake management on land not in agri-environment schemes because under Good Farming Practice the first cut of grass must be taken by 15 July, endangering the young birds.

## **7.8 Negative impacts of Axis 1 measures farmland birds**

There are risks that investment in the modernisation of farms could lead to loss of extensively managed grasslands - for example by increasing stocking rates or fertiliser use or by drainage. These risks could be reduced if the criteria used to assess applications included an evaluation of the impact on environmentally friendly farming (the Nature Conservation and Landscape Protection Agency has already done some work on this), and if drainage proposals required approval from nature conservation authorities, to protect wet grassland used by Corncrakes and waders.

## **7.9 National Strategy and budget allocations for 2007-13**

There is a strong tradition of nature conservation in the Czech Republic and the Ministry of Agriculture has worked closely with both government environmental institutions and NGOs on the rural development programme through a series of working groups. For example, the grassland management proposals are based on long-term work of the Expert Corncrake Group of the Czech Society for Ornithology.

In the 2004-06 period 35% of the EAGGF (Guarantee and Guidance) support under both the SOP and RDP was allocated to agri-environment, and a similar proportion to LFA<sup>49</sup>. Significant proportions of the budget were spent on measures to reduce agro-chemical inputs and to protect and improve soils, likely to have relatively little impact on farmland birds compared to the more targeted measures.

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<sup>49</sup> Country profiles DGAgri

The proposed allocation of 2007-13 EAFRD funding between Axes (at the time data was collected for this report) was:

Axis 1 23%  
**Axis 2 54%** Precise figures were not available but about 80% of Axis 2 is likely to be  
Axis 3 18% spent on agri-environment payments  
Axis 4 -5%

The national strategy for 2007-13 refers to the management of Corncrake on permanent grasslands, and the conservation of bird populations is also a focus of Natura 2000 payments on agricultural land.

Agri-environment schemes for nature conservation on arable land seem to have been undervalued, with the main priority being to limit soil erosion and protect water (46% of agricultural land in the Czech Republic is vulnerable to soil erosion, mostly by water). If the decline in the farmland bird index is to be reversed more emphasis will have to be placed on the needs of birds within the arable agri-environment schemes.

### **7.10 Agri-environment and Good Agricultural and Environmental Condition**

If properly defined and enforced Good Agricultural and Environmental Condition can safeguard the non-farmed areas and small landscape features which are so important for farmland birds and protect semi-natural habitats from damage or destruction, leaving agri-environment schemes to pay for their management, restoration and improvement.

Areas of semi-natural vegetation, peat bogs, ponds, and some wetlands and permanent grasslands are already protected by law in the Czech Republic, and in the current programme all farmers receiving agri-environment or LFA payments are prohibited from converting grassland to arable land. This welcome protection for bird habitats may be lost unless it is transferred to Good Agricultural and Environmental Condition - under the current definition of GAEC farmers may convert up to 5% of their grassland without penalty.

Biodiversity experts point out that there were some problems with the current definition of Good Farming Practice which required grass to be mown or grazed twice a year, where this conflicted with agri-environment requirements, but these have gradually been resolved by derogations.

### **7.11 Delivery and evaluation of agri-environment measures**

A recent report on implementation of 2004-06 agri-environment measures in the Czech Republic concluded that:

- agri-environment measures have a positive impact on the environment but farmers find it difficult to choose the best scheme from the many available (29 in the 2004-06 Plan).
- education and training for farmers is necessary to achieve agri-environment objectives, and it is important for farmers to understand that agri-environment is not just financial support but helps them to adopt environmentally friendly production methods
- farmers are not given enough information about how to comply with agri-environment requirements and what will be inspected on control visits<sup>50</sup>

The Ministry of Agriculture's own mid-term assessment of SAPARD agri-environment measures also concluded that more information and advice for farmers were needed<sup>51</sup>.

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<sup>50</sup> Ref..OB

<sup>51</sup> Ref....Annex to Nat Strat

Environmental experts suggest that the value of site-specific advice (matching agri-environment options to the environmental opportunities of individual farms) is not properly recognised. The results have been good where nature conservation staff provide such advice and is a very effective way of improving farmers' understanding.

Some problems have arisen where neither the regional advisory staff nor the farmers have understood how to combine entitlements to direct payments and the demands of Good Agricultural and Environmental Condition with nature conservation requirements for special sites. This seems to be due partly to a failure of communication between the different institutions involved.

#### *Evaluation*

In contrast to many other Member States the Czech Republic has already used birds as an indicator of the impact of some agri-environment schemes - a baseline study of Partridge was made in 2002 for an experimental agri-environment measure planting winter bird food crops on arable land, and ornithological monitoring was used for grassland measures in the 2004-06 programme. Populations of selected farmland birds will be used as indicator for both Axis 2 and the RDP as a whole.

## 8 Estonia

**Important note on data:**

Unless other sources are cited the information in this chapter is from a questionnaire survey of local experts in spring/summer 2006, when the proposals for the 2007-13 programme were not finalised. The following information was the best available at the time but may no longer be up-to-date.

### **Key points for Estonia 2007-13**

Estonia has a significant share of the EU populations of five important Annex 1 farmland birds, including 15% of the EU25 population of the Corncrake which has suffered serious decline in Estonia.

At least 50% of the semi-natural habitats in Estonia are outside Natura 2000 sites, and many grasslands have already been abandoned; the longer these are left unmanaged the more serious will be the effect on birds; the remaining grasslands on are threatened by both abandonment and intensification.

The most serious problem for Estonian agri-environment schemes in 2004-06 has been shortage of funds. Measures for high nature value habitats and their associated birds were piloted before accession but not implemented in the current programme, despite the allocation of additional funds to agri-environment during the course of the programme.

The National Strategy for 2007-13 makes reference to maintaining or enhancing biodiversity in high nature value farmlands but it is not clear if Axis 2 funding will be sufficiently targeted at protecting and developing high nature value farming systems as required by the EU Guidelines, or if there will adequate coverage of measures to restore appropriate management regimes to existing valuable grasslands outside Natura areas, or to meet demand for the new entry level scheme.

Two new measures are proposed for the 2007-13 programme:

- a measure for the management of semi-natural grassland in Natura 2000 areas should halt the loss of these grasslands, but it will only be available in protected areas, not on other high nature value grassland;
- a more demanding entry-level agri-environment measure (Environmentally Friendly Management Scheme) from 2009, which was expected to create new habitats for farmland birds - but it is proposed that this measure should apply only to arable land, and that options of most benefit to birds should be excluded, such as strips of permanent grass along field boundaries and across large fields.

If these measures are restricted as described above (to Natura 2000 areas and arable land respectively) it will leave the large areas of high nature value semi-natural grasslands outside Natura 2000 sites with no agri-environment measures for habitat management and still vulnerable to the two threats of abandonment and intensification.

Good Agricultural and Environmental Condition requirements could be altered to benefit grassland birds - for example by specifying mowing from the centre of the field outwards.

Estonian farmers have a favourable attitude to agri-environment and compulsory agri-environment training measures encourage and support this - but the basic training is not long enough to cover all biodiversity issues and additional training will be needed for new habitat management measures.

There is a need to improve the training of paying agency inspectors in habitat definition and management.

Estonia is one of the few Member States to have an agri-environment evaluation programme already set up using biodiversity impact indicators.

### **8.1 Agriculture in Estonia**

More than half the total land area is forest and woodland, and 40% is farmland. Of this (in 2001) 31% was under crops, 30% under permanent grassland, 26% under forage crops, 8% in other use (berries, kitchen gardens, nurseries etc) and 4% was left fallow.

## 8.2 Annex 1 farmland birds in Estonia

Estonia's farmland accounts for less than 1% of the EU25 total but it provides breeding or feeding grounds for major populations of four of the twenty Annex 1 farmland birds targeted by BirdLife for support through agri-environment schemes. Two of these, the Corncrake and Great Snipe (15% and 19% of the EU25 population respectively) are of global conservation concern under the IUCN Red List criteria. Corncrake populations have declined significantly in Estonia, possibly by as much as 50%. Estonian farmland also helps to support significant populations of the Lesser Spotted Eagle and White Stork (both Annex 1 species in unfavourable population status), one quarter of the EU25 population of the Spotted Crake, and provides feeding grounds for migrating Barnacle Geese. There are still a few pairs of the almost extinct Roller, which favours mixed traditional farmland.

The total area of agricultural land within the IBAs is 81,807 ha and includes areas defined as natural grasslands in the CORINE Land Cover Database because preservation of natural grasslands in Estonia can only be ensured by ongoing traditional agricultural land-use (grazing, mowing). Please see Annex 3 for more details of important farmland birds and their habitats in Estonia.

## 8.3 Threats to existing farmland habitats for Annex 1 and other birds in Estonia

The main threat to both grazed dry grasslands and wet grasslands near rivers and coasts is abandonment, followed by colonisation with trees and shrubs, as a result of the drop in both livestock numbers and profitability. The value of wet grasslands for nesting birds is also threatened by grazing or mowing too early in the season - 1 July is too early and mowing should be delayed until at least 15 July and ideally 1 August.

Mixed traditional farmland is at risk of intensification leading to the loss of small fields. Arable land on larger farms is threatened by intensification, and by abandonment on smaller farms.

## 8.4 Opportunities to create new habitats for farmland birds

In addition to the need to address the threats to existing grassland habitats outlined above, there are opportunities to create new habitats for farmland birds on arable land. Table \*\* below identifies the opportunities to improve bird habitats and the birds which would benefit.

Farm type	Opportunity to create habitats or adopt bird-friendly management practices	This would improve breeding or feeding areas for:
Arable	grass field margins, mown late	New habitat for Corncrake, Grey Partridge, Whinchat and probably Skylark
Arable	winter green cover	Feeding/resting areas for migrating geese
Arable	strips natural vegetation within the field	most ground nesting birds including Corncrake and Great snipe

## 8.5 Agri-environment measures for farmland birds 2007-13

Estonian farmers are interested in environmentally friendly management and have a very positive attitude towards agri-environment schemes, which has been fostered by the gradual implementation of nationally funded pre-accession schemes from 2000 to 2004.

Agri-environment support was the largest single element in the RDP, and a programme of both entry level and targeted measures was developed for the RDP, with advice from environmental experts and using the experience of the national programmes. The opportunities to support management of farmland for birds changed drastically in 2004, when support for nearly all supplementary measures within the pilot programme was discontinued,

and only about 6 % of available funds were spent on biodiversity-related measures thereafter<sup>52</sup>. An agri-environment evaluation report in 2005 noted that, faced with a funding problem, the MoA took the decision that the entry level measure for environmental production scheme should take priority because it dealt with a number of environmental problems related to agricultural production, and provided the basis on which farmers could build up to more demanding agri-environment measures. This meant that other measures, including some targeted at farmland management for birds, were not implemented and some may not be brought back into the programme until 2009 - for example a semi-natural habitats measure was not offered under the RDP, but similar state-aid support continued in Natura 2000 areas only (see below)<sup>53</sup>.

For 2007-13 there are two schemes (in addition to the organic farming scheme) which could benefit farmland birds. It is proposed to discontinue the current entry level Environmentally Friendly Production scheme and replace it with the more demanding **Environmentally Friendly Management Scheme (EMS)**, which has been tested on more than 4000 ha in two pilot areas since 2001. Details are not yet finalised for the 2007-13 Environmentally Friendly Management Scheme but it may be targeted at 35% of Estonian farmland and could be of considerably more benefit to farmland birds than the scheme it replaces, if it is available for both arable and grassland and if the following requirements are included in the final version:

- mark all semi-natural habitats and valuable landscape elements<sup>54</sup> on the Whole Farm Map and do not damage, disturb or destroy any of these semi-natural habitats or valuable landscape elements identified on the Whole Farm Map. Fertilisers and plant protection products must not be used within one and a half metres of semi-natural habitats and valuable landscape elements.
- strips of perennial vegetation at least 2 (or 4) metres wide must be established or retained on all boundaries where the cultivated area meets uncultivated areas, such as roads. The strips should be mowed at least once a year during a time period suitable for ground nesting birds. No fertilisers or crop protection products should be applied to these strips and they must not be allowed to overgrow.
- in fields larger than 30 hectares, the farmer should establish an uncropped and uncultivated mid-field strip (minimum width of 3 metres) with perennial vegetation and manage them as above;
- follow a planned crop rotation plan, and from 1 November to 31 March, there must be green cover on 30% of the land to which crop rotation is applied.
- stocking rate of grazing animals on the farm to be no more than 1.5 Livestock Units (LU) per hectare of cultivated land.
- the applicant must participate in at least 6 hours of training in Environmentally-friendly Management within the first year following application, and in at least 12 hours of training in Environmentally-friendly Management during the remaining four years of commitment in total.

Of major concern to biodiversity experts is a recent proposal to offer this Environmentally Friendly Management Scheme only on arable land, not on grassland. Given the importance of appropriately managed grassland habitats to declining Annex 1 birds in Estonia, and the serious threat of abandonment, there is no environmental justification for excluding grassland from this scheme. It may be further restricted by dropping boundary strips and mid-field strips from the options which will make it of much less benefit to birds.

The second new scheme for 2007-13 is **Management of Semi-Natural Grassland/ high nature value Farmland in NATURA areas**. This measure, which was dropped from the 2004-06 programme, applies only within Natura 2000 sites and only on farmland that is not registered for SAPS direct aid. The management requirements have not been finalised, but are likely to be based on Ministry of Environment payment schemes operating for the past five

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<sup>52</sup> Anonymous 2004,2005 quoted in Herzon

<sup>53</sup> OB (2005) Evaluation Des Mesures Agro-Environnementales Agri/ G4/ 2004 Annexe 22: Etude Nationale Estonie (report published in English)

<sup>54</sup> hedges, hedgerows, stonewalls and other traditional field boundaries, ponds and wetlands, springs, stone heaps and isolated glacial boulders, alleys, coppices and forest patches, trees of notable landscape and biodiversity value, objects of historical or archaeological value

years for the restoration and maintenance of high nature value grasslands in Natura 2000 sites, including wooded meadows, coastal grasslands, floodplain meadows, wet meadows, wooded pastures and dry grasslands.

These two measures appear to be well designed and of benefit to birds (preferably with mowing dates later than 15 July) - but restricting their availability as described above (to arable land and Natura 2000 areas respectively) threatens to leave large areas of high nature value semi-natural grasslands (outside Natura 2000 sites), which are important for Annex 1 birds including Corncrake and White Stork, without any agri-environment measures for grassland management and at risk of abandonment or intensification.

## **8.6 Natura 2000 compensation payments**

### *Natura 2000 payments*

About 17% of the Axis 2 budget will be allocated to Natura 2000 management and farmers in Natura 2000 areas will have access to either compensation or agri-environment payments for habitat management and species protection - but this will not address the needs of Annex 1 birds using the large areas of high nature value habitat outside Natura 2000 sites.

## **8.7 Negative impacts of Axis 2 measures on farmland birds**

### *Afforestation of farmland*

As in many Member States there are concerns that afforestation of grasslands, including those already abandoned, may threaten habitats of Annex 1 birds in Estonia, including Corncrake and Spotted Crane.

### *Areas with handicaps (formerly Less Favoured Areas)*

Half the farmland in Estonia is eligible for LFA support but this has taken a smaller share of the RDP budget than in many Member States and is perceived to have benefited birds by supporting compliance with GFP requirements on land that otherwise might have been abandoned.

## **8.8 Impacts of Axis 1 measures farmland birds**

No negative impacts of Axis 1 measures were reported and it was pointed out that support for rebuilding stone walls may provide nesting sites and feeding places for some farmland birds.

## **8.9 National Strategy and budget allocations for 2007-13**

In the Estonian National Strategy for 2007-13 ensuring continuing farming on Natura 2000 sites has been set as one of the main targets for Axis 2, and maintaining or enhancing biodiversity in high nature value farmlands (including birds) has been set as a target in general. The main objective of RDP is to ensure stable status of the environment by environment-friendly ways of agricultural production, and to guarantee agricultural land use in the regions where it is important for shaping traditional landscapes and for the preservation of high nature value areas.

The proposed allocation of 2007-13 EAFRD funding between Axes (at the time data was collected for this report) was:

Axis 1 –40%

Axis 2 –39%

Axis 3 –21%

Axis 4 –10%

These objectives certainly allow scope for grassland management for birds but it is not clear if the priority given to different agri-environment measures will reflect the management needs of declining Annex 1 birds such as the Corncrake. Environmental experts point out that:

- targeted agri-environment measures were not implemented in the current programme because of funding restrictions
- additional funding will be needed in 2007-13 to cover new measures and higher than anticipated rates of take-up, and to extend the new entry-level measure to grasslands and the high nature value measure outside Natura 2000 sites

### **8.10 Agri-environment and Good Agricultural and Environmental Condition**

If properly defined and enforced Good Agricultural and Environmental Condition can safeguard the non-farmed areas and small landscape features which are so important for farmland birds, and protect semi-natural habitats from damage or destruction, leaving agri-environment schemes to pay for their management, restoration and improvement.

Biodiversity experts point out that the current definition of Good Agricultural and Environmental Condition, which has already been harmonised with GFP, could be improved by:

- changing the last date by which grass must be mown, from 31 July to 15 August;
- requiring the use of 'middle outwards' or similar mowing techniques to protect chicks of ground nesting birds;
- adjusting grazing requirements, which in some cases are too low.

### **8.11 Delivery and evaluation of agri-environment measures**

#### *Delivery*

Estonian farmers have a favourable attitude to agri-environment, encouraged and supported by compulsory agri-environment training measures, but the basic training is not long enough to cover all biodiversity issues and additional training will be needed for new habitat management measures. The most significant problem in providing farmer training was the limited number of advisers with the necessary technical expertise - there are 30-40 in Estonia, which is not considered sufficient.<sup>55</sup>

There is also a need to improve the training of paying agency inspectors in habitat definition and management.

#### *Evaluation*

Estonia has a detailed programme of independent evaluation of RDP measures, which includes evaluating the biodiversity impact of measures using a range of indicators including farmland bird populations (see case study on page \*\* for details).

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<sup>55</sup> ref OB

## 9 Latvia

**Important note on data:**

Unless other sources are cited the information in this chapter is from a questionnaire survey of local experts in spring/summer 2006, when the proposals for the 2007-13 programme were not finalised. The following information was the best available at the time but may no longer be up-to-date.

### Key points for Latvia 2007-13

*Are conservation priorities for farmland birds adequately addressed in the objectives, targeting and funding of the 2007-13 Rural Development Plan?*

The population index of farmland birds for Latvia fell by 3.3% between 2000 and 2003. In Latvia 90% of the populations of three declining Annex 1 farmland birds depend on farmland habitats outside Natura 2000 areas.

Land abandonment is a major threat - large areas of the open farmland and grasslands which are the main breeding areas for these and other Annex 1 birds have already been abandoned, and more will be lost if action is not taken to remove colonising shrubs and trees maintain them as grasslands.

Afforestation of (abandoned) farmland using EAFRD Axis 2 funds is a major threat to these grassland habitats and will lead to their permanent loss; afforestation of farmland in Latvia has no environmental justification and appears to contravene the Commission's Guidelines

Restoration of neglected land drainage systems (driven by Good Agricultural and Environmental Condition requirements and supported by Axis 1 funding) is a major threat to wet grasslands which have developed on previously drained but neglected farmland and are used by Annex 1 birds, in both Natura 2000 sites and the wider countryside.

Habitats for farmland birds are threatened by the proposed allocation of 50% of the budget to Axis 1 measures without adequate controls to protect existing areas of semi-natural habitats and small landscape features.

*Is the design of agri-environment schemes and measures fit for the purpose of safeguarding and managing farmland habitats for the conservation of farmland birds?*

The budget available for agri-environment measures targeted at maintaining and creating grassland habitats for birds may be limited by competition from LFA payments and from other agri-environment measures which are popular with farmers but of much more limited benefit to farmland birds - in particular organic (biological) farming and a new measure for erosion control.

An existing agri-environment scheme for extensive management of grasslands by late season mowing or low intensity grazing requires changes in mowing dates to give better protection for Corncrake and other ground nesting Annex 1 birds.

Where valuable grasslands have been abandoned and overgrown by bushes, targeted restoration measures will be needed, using non-productive investments to clear the scrub, before farmers enter the grassland management scheme.

Management of semi-natural grasslands by mowing may be the only cost-effective way of maintaining large areas of these habitats, and if they are to survive the authorities may need to counter growing prejudice against so-called 'sofa farmers' who own the land and live elsewhere but are willing to manage it under agri-environment or other incentive scheme.

*What are the barriers to delivering appropriate, targeted and effective agri-*

*environment measures for the conservation of farmland birds?*

*What is the effect of other CAP policies on the delivery of effective agri-environment schemes for the conservation of farmland birds?*

Changes in national LFA regulations may lead to many LFA farmers abandoning grasslands they have maintained by mowing; to prevent the loss of these important habitats it will be very important that agri-environment 'mowing only' measures are available to these and other farmers without livestock.

## 9.1 Agriculture in Latvia

### Farming

Latvia has more forest than agricultural land (45% and 39% respectively). Almost two thirds of the agricultural land is arable and a similar proportion has been drained in the past. Abandonment of farmland has become a major problem - between 1995 and 2004 the proportion of unused farmland rose from 11% to 20%. The abandonment of grasslands is a now a major threat to many farmland birds as without grazing or mowing these open areas change into woodland (by natural recolonisation or by planting). A more beneficial consequence of abandonment has been the restoration of natural hydrological regimes (and improved habitats for birds) where land drainage systems have not been maintained for the last 10-20 years. Where farming continues there are signs of significant intensification - for example between 1995 and 2003 the rate of application of mineral fertilisers on sown land increased from 23 kg/ha to 72 kg/ha and the use of pesticides and plant protection products increased from 0.2 kg/ha to 1.1 kg/ha<sup>56</sup>.

## 9.2 Annex 1 farmland birds in Latvia

Latvia's farmland accounts for only 1% of the EU25 total but it provides breeding and feeding grounds for major populations of three Annex 1 farmland birds targeted by BirdLife for support through agri-environment schemes. Latvia has nearly half the EU25 population of the Lesser Spotted Eagle, almost one quarter of the Corncrake population and 9% of the White Stork population. The first two species have unfavourable conservation status in Europe and the Corncrake is also of global conservation concern under the IUCN Red List criteria.

It is important to note that in more than 90% of the Latvian populations of these three species are found outside Natura 2000 sites, and all of them depend on open extensively managed grassland habitats. The 2007-13 RDPs will therefore be critically important for the conservation and protection of these birds and also other Annex 1 and more common farmland species in the wider countryside<sup>57</sup>.

The most important grassland areas are located around the lakes of Pape, Liepaja, also in Laknciems, Daugavgr\_va, Lub\_na Lowlands and river basins of Daugava, Gauja and other rivers and Randa grasslands.

Most of the Natura 2000 areas in Latvia support the targets of both Birds and Habitats Directives, but for several reasons not all IBAs (or not all parts of them) are included in Natura 2000 designations. The 43 IBAs which include farmland account for a total of more than 123000 hectares of farmland, with varying degrees of legal protection (see section \*\*). The farmland in IBAs is mostly wet grassland but also includes dry unimproved grassland and arable land.

<sup>56</sup> Statistical Yearbook of Latvia 2004 quoted in OB.....

<sup>57</sup> Other important Annex 1 farmland birds Great Snipe *Gallinago media* Roller *Coracias garrulus*, Aquatic Warbler *Acrocephalus paludicola*, Black Stork *Ciconia nigra* (12% of EU 25 population), Nightjar *Caprimulgus europaeus*, Crested Tit *Parus cristatu*, Black Grouse (Tetrao tetrix), Capercaillie (Tetrao urogallus), Spotted Crake Porzana Porzana and Ruff (Philomachus pugnax)

Please see Annex 3 for more details of important farmland birds and their habitats in Latvia.

### 9.3 Threats to existing farmland habitats for Annex 1 and other birds in Latvia

#### **Grassland (including Biologically Valuable<sup>58</sup> grasslands)**

Grasslands occupy 23% of the agricultural land and are mainly wet, including pastures, fallows, natural grasslands and periodically flooded meadows. Extensively managed wet grasslands are the optimum habitat for Corncrake and Great Snipe, important feeding grounds for Lesser spotted eagle and White stork and of value to several other Annex 1 species<sup>59</sup>. Large areas of Latvian grasslands were abandoned as a result of the creation and collapse of the collective farm system, and the consequent economic problems of rural areas. Gradually traditional farming practices have ceased and the rural population has declined (especially through the loss of farmsteads outside villages). Threats to wet grassland habitats include:

- abandonment and overgrowth of scrub and trees
- afforestation (potentially with Axis 2 funds)
- drainage (as a result of renewing or maintaining long neglected drainage systems, potentially with Axis 1 support)
- early mowing (before ground-nesting birds have flown)
- use of chemicals and pesticides in protected areas
- conversion to arable (only on a small scale at present)
- negative attitudes of the farming community towards agri-environment management by city-dwelling landowners
- restoration of polders, or flood regulation measures which can alter the hydrological regime of grasslands.

#### **Arable land**

Arable land, especially when part of a mosaic in mixed traditional farming areas with a small field landscape, offers foraging territories for Lesser spotted eagle *Aquila pomarina* and White stork *Ciconia ciconia*, and is a major type of breeding habitat for other Annex 1 birds<sup>60</sup>. This land is mainly used for growing cereals (mostly rye and wheat, less commonly barley and occasionally oats), fodder crops (mostly beet), root crops (mostly potatoes) and fallow land not more than 3 years old. Threats to existing valuable arable habitats include:

- abandonment
- afforestation of (mainly abandoned) arable land, which will diminish the biological diversity and may threaten relatively common and widely distributed farmland bird populations
- increased fertiliser and pesticide use (significant increases in the past 6 years)
- restoration of long-neglected land drainage channels, reversing biodiversity gains of the past 10-20 years
- use of chemicals and pesticides in protected areas

#### **Unimproved permanent dry grasslands (including Biologically Valuable grasslands)**

There is practically no management of these marginal and unproductive dry meadows, dunes and sand plains, mostly situated near the seacoast, which are an important breeding area for the Tawny pipit *Anthus campestris* (declining Annex 1 species). Threats to these unmanaged areas include:

- significant parts of former dry coastal grasslands, sandy open areas and heathland may be classified as forest land, thus being excluded from farming
- overgrowth of scrub and trees (natural succession)

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<sup>58</sup> 'Biologically Valuable' grasslands have been identified on 18,620 ha (4.5% of the total) but this proportion could increase as more survey data becomes available; about half the Biologically Valuable grasslands were being farmed in 2004.

<sup>59</sup> e.g. breeding Aquatic warbler *Acrocephalus paludicola*, Montagu's harrier *Circus pygargus*, Spotted crane *Porzana porzana*, Ruff

<sup>60</sup> e.g. Ortolan Bunting *Emberiza hortulana*, Skylark *Alauda arvensis*, Yellowhammer *Emberiza citrinella*, Grey Partridge *Perdix perdix*, Curlew *Numenius arquata* and Lapwing *Vanellus vanellus*. Field margins, edges and other landscape elements along with arable fields host a number of other breeding species, including Red-backed Shrike *Lanius collurio*, Corncrake, Whinchat, Linnet etc.

- afforestation could continue in open areas outside protected areas.
- development of private housing and infrastructure projects
- human pressure from tourism and recreation along the coast. causes habitat degradation and disturbs wildlife, including breeding Tawny pipits,

#### **Small landscape elements on all types of agricultural land**

Small landscape features such as isolated bushes, individual trees, stone heaps, patches of unmown vegetation, wet depressions etc are of value to many Annex 1 and other farmland birds but are threatened with removal because they are not included in current Good Agricultural and Environmental Condition cross-compliance requirements, so farmers lose area payments on the land occupied by these features.

#### **9.4 Opportunities to create new habitats for farmland birds**

In addition to the need to address the threats to existing Annex 1 bird habitats outlined above, there is a significant case for the creation of new habitats for farmland birds. Justification for habitat creation includes: the high proportion of key Annex 1 farmland species in Latvia which depend on land outside SPAs; the scale and nature of the threats to their habitats; and the 3.3% decline in the farmland bird index for Latvia between 2000 and 2003<sup>61</sup>. The following table identifies the types, preferred locations and reasons for creating new habitats.

<b>New habitat</b>	<b>Reason for creation</b>
<p><b>conversion of arable to permanent grassland</b></p> <p>selected areas where natural succession to grassland would benefit Corncrake <i>Crex crex</i> Great snipe <i>Gallinago media</i> and Lesser spotted eagle <i>Aquila pomarina</i></p>	<ul style="list-style-type: none"> <li>• passive conversion is already happening on abandoned arable land (but is likely to be reversed as land-use intensifies)</li> <li>• to avoid redrainage of land where biodiversity is improving as a result of abandonment</li> </ul>
<p><b>grassy field margins on arable land</b></p> <p>only available in 3 of the 26 districts in Latvia at present, wider application of this measure would benefit Corncrake <i>Crex crex</i>, White stork <i>Ciconia ciconia</i> and other farmland birds.</p>	<ul style="list-style-type: none"> <li>• create diversity of habitats, shelter and food supplies in large arable fields</li> <li>• also benefits for soils and water</li> </ul>
<p><b>small ponds and scrapes (all agricultural land)</b></p> <p>would benefit White stork <i>Ciconia ciconia</i> Spotted crane <i>Porzana porzana</i> and other farmland birds</p>	<ul style="list-style-type: none"> <li>• create habitat diversity and provide food (invertebrates and amphibians)</li> </ul>
<p><b>create small landscape elements (all agricultural land)</b></p>	<ul style="list-style-type: none"> <li>• habitat diversity, shelter, feeding and nesting areas (for birds and their prey)</li> </ul>

#### **9.5 Agri-environment measures for farmland birds 2007-13**

Three measures for extensively managed grassland are under consideration for the 2007-13 programme (for the management and restoration of existing valuable grasslands and the creation of grass strips in intensive arable areas). These could be of great benefit to Annex 1 birds such as Corncrake *Crex crex* Great snipe *Gallinago media* White stork *Ciconia ciconia* Lesser spotted eagle *Aquila pomarina* and other farmland birds, and are described below:

##### **i. Maintenance of biodiversity in high nature value grasslands**

This measure to protect and manage valuable grassland bird habitats was developed under SAPARD, implemented in 2004-06 and is expected to be continued in 2007-13, with some modifications. It covers extensive grazing and/or 'late' mowing of grasslands and is restricted to Biologically Valuable Grasslands (BVG) - these extend to 56,000 ha. Work on the BVG inventory is continuing with support from the MoA and several LIFE

<sup>61</sup> Source Eurostat  
[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996,39140985&\\_dad=portal&\\_schema=PORTAL&screen=de\\_tailref&language=en&product=STRIND\\_ENVIRO&root=STRIND\\_ENVIRO/enviro/en073](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,39140985&_dad=portal&_schema=PORTAL&screen=de_tailref&language=en&product=STRIND_ENVIRO&root=STRIND_ENVIRO/enviro/en073)

projects, so the total eligible area for 2007-13 will be bigger than in the previous programme.

By 2005, about 16% of the agri-environment budget was being used for 19,520 ha of grassland managed under this measure on 2340 farms. The starting date for mowing grasslands is critical to the breeding success of Corncrakes (which have flightless chicks) and other ground nesting grassland birds, because if mowing starts too early both nests and chicks will be destroyed. In the 2004-06 schemes the date for late mowing of grasslands is after July 10, and in the next programming period it is proposed to extend this to after July 15. These dates are a compromise between the farmers' desire for usable hay, botanical management requirements and the needs of the Annex 1 birds. BirdLife Latvia and other nature conservation experts point out that 15 July is not favourable enough for breeding Corncrakes and other grassland bird species. Corncrakes arrive in Latvia a little later than in more southerly Member States and the second brood continues from the middle of June until the end of August. There are nests with eggs till the end of July so protecting these late broods means delaying mowing until mid August on areas used by Corncrakes. (But such a late start for mowing is not necessary on areas of grassland smaller than 1 ha, because these are too small to be suitable for Corncrakes). Nature conservation experts recently proposed a modified agri-environment scheme with three mowing dates and three different payments (shown in Table \*\*) but this has not been so far been adopted by the Ministry of Agriculture, which was sympathetic in principle, but concerned about the additional burden of administration with more than one 'start date'.

**Table \*\* Proposal for three different mowing dates and payments for grasslands used by Corncrake.**

Proposed management requirements and payment rates	Mowing after June 15 <sup>62</sup>	Mowing after July 15 <sup>63</sup>	Mowing after August 15 <sup>64</sup>
	% of maximum possible payment		
Mowing and removal of hay on areas of land larger than 1 ha	50%	70%	100%
Mowing and removal of hay on areas of land smaller than 1 ha (grasslands surrounded by populated areas or forests)	100%	100%	100%
Grass mulching <sup>65</sup>	forbidden	50%	70%

Not just the start date, but also the method of mowing grasslands is very important for both ground nesting birds and for birds which feed on the small mammals of grasslands such as the Lesser spotted eagle. If the grass is cut from the outside of the field working in a concentric pattern towards the centre, the young birds and other animals will seek shelter in the remaining area of uncut grass until they are killed as the last grass is cut in the middle of the field. Mowing in a bird friendly pattern is a relatively inexpensive agri-environment measure (the main cost being extra time and fuel) but is not a requirement in Latvia (see section \*\* above for details).

**ii. Restoration of biologically valuable grasslands, including wooded meadows**

<sup>62</sup> The payment compensates the additional expenses under difficult mowing circumstances and prohibition to use fertilizers and mow grasslands more than one time in season.

<sup>63</sup> The payment compensates all the same as in the point 1 + the loss of hay quality.

<sup>64</sup> The payment compensates all the same as in point 1+ that the hay can't be use as forage because of its low quality.

<sup>65</sup> Late mowing produces poor quality hay, unsuitable for fodder, so the farmer has no use for it and no reason to remove it - but if it is left to rot in the field the grassland habitat will deteriorate. Mulching the mown grass is a compromise which does less damage to the habitat and is more acceptable to the farmers, who otherwise might abandon the grassland

This proposal is for a new horizontal measure targeted at valuable grasslands which have already been abandoned and overgrown by scrub (a similar measure was available for the maintenance of the landscape under the Joint Programme Document co-ordinated by the Ministry of Economics but seems to have had limited uptake). After restoration the grassland could be managed under the existing scheme (described above), increasing the area of habitat available to Annex 1 birds (Lesser Spotted Eagle, White Stork, Corncrake etc.) The proposal has been put forward by the Latvian Fund for Nature, the Latvian Ornithological Society and the Latvian Entomological Society and would seem to be a good candidate for Article 41 payments (non-productive investments), providing the 'front-loaded' payments needed for the removal of the overgrown scrub, followed by the annual management payments under the current scheme.

### **iii. Grass field margins and water protective zones**

This existing zonal measure for creating and maintaining permanent grassy strips 4-10 metres wide along watercourse and field margins has been targeted in 2004-06 at intensive arable land in only three of the 26 districts in Latvia; by 2005 had been implemented by 244 farmers. If made available more widely it has the potential to provide new habitats in areas where these are scarce, and a proposal has been submitted by the biodiversity NGOs (and recently supported by the association of agricultural NGOs) that this measure should be made horizontal in the 2007-13 programme so that the benefits to biodiversity (and Annex 1 birds) can be extended to intensively managed farmland throughout Latvia.

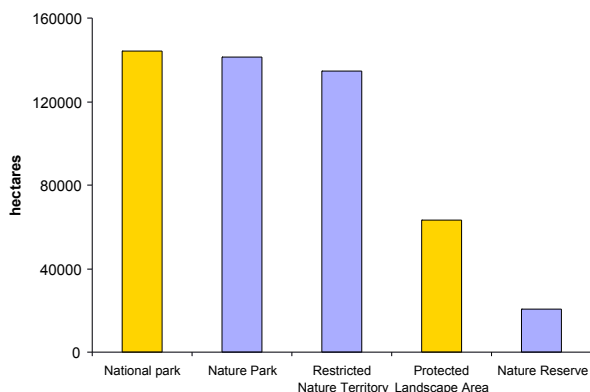
One other measure that would benefit farmland birds generally but has not been included in the 2007-13 proposals is the management and replacement of small landscape elements. Features such as isolated bushes, individual trees, stone heaps, patches of unmown vegetation, wet depressions etc are important to farmland birds and could to some extent be protected from deliberate damage or removal by adding them to the Good Agricultural and Environmental Condition requirements (provided these were adequately controlled). But farmers are more likely to safeguard these features in the longer term if there is the possibility of agri-environment support to actively manage existing features and to create new ones.

## **9.6 Natura 2000 compensation payments**

### *Legal restrictions*

Restrictions vary between sites, depending upon which of five categories of Specially Protected Nature Territories applies to the site designation. General regulations prohibit ploughing up or otherwise destroying meadows in Restricted Nature Territories; mowing of grass from field edges to the centre as well as burning old vegetation in spring is prohibited in both Restricted Nature Territories and Nature Parks - but both of the latter requirements are regularly ignored by farmers and do not apply to sites in other, less strict, categories. A large proportion (207,395 hectares; 41%, see Figure \*\* below) of the protected parts of IBAs are covered by National Parks and Protected Landscape Areas which are generally large territories with relatively low overall restrictions, or practically no restrictions in the case of Landscape Areas. Apart from the general regulations, sites may have their own management plans and individual regulations which normally define a number of functional zones with different protection and management regulations. After being legally approved, the individual regulations replace the general regulations.

Surprisingly there are no restrictions on the use of agricultural chemicals in SPAs, because the legislation was prepared some time ago when there were few agricultural SPAs and agricultural intensification was not seen as a threat.



**Figure \*\* Coverage of the inland IBAs in Latvia by different categories of national Specially Protected Nature**

#### *Natura 2000 payments*

In the 2004-06 period Natura 2000 payments have been 'compensatory' or passive payments to the land-owners within Natura 2000 sites irrespective of their management activities or the actual restrictions within these sites (which vary greatly from very strict to none). The Ministry of Agriculture and the biodiversity NGOs agree that this is not satisfactory, but until appropriate legal restrictions are in place it is difficult to see how these payments can be used more effectively. Despite this 5% of the Axis 2 budget has been allocated to Natura 2000 compensation payments.

It would appear that for the immediate future targeted agri-environment measures will be a more effective means of managing Natura 2000 sites without adequate legal restrictions, and for IBAs which are not designated as SPAs.

### **9.7 Negative impacts of Axis 2 measures on farmland birds**

Proposals for afforestation of farmland and support for areas with natural handicaps (Less Favoured Areas) could both have serious negative impacts on Annex 1 and other farmland birds, if implemented as planned.

#### *Afforestation of farmland*

Despite the fact that Latvia is already more than 45% forested, afforestation of farmland was supported in 2004-06 and it is proposed to continue this in the 2007-13 plan. The nature conservation NGOs in Latvia are strongly opposed to this, pointing out that both afforestation and natural recolonisation of abandoned farmland by trees has already diminished the biological diversity of open farmland habitats. Planting agricultural land with trees, threatens to reduce still further the open farmland and semi-natural grassland habitats of widespread but declining Annex 1 birds<sup>66</sup> and also of other farmland birds which are declining in the EU or have large EU populations in Latvia<sup>67</sup>.

The total target area for afforestation has not been publicised and proposals vary from 35000 to 1 million hectares. Table \*\* shows the Latvian Ornithological Society's estimate of expected losses in the Latvian Corncrake population at different levels of afforestation.

**Table \*\* Estimated losses of breeding Corncrake population caused by the proposed afforestation of farmland in Latvia (three different scenarios).**

Area of farmland afforested ha	Lost / displaced Corncrakes, pairs			% of the current national population
	min	max	average	

<sup>66</sup> e.g., breeding Corncrake and Red-backed Shrike, feeding Lesser Spotted Eagle and White Stork

<sup>67</sup> e.g. Whinchat and Skylark

35000	444	2975	1709	4,5%
500000	6350	14250	10300	27,1%
1 million	12700	28500	20600	54,2%

The Ministry of Agriculture has agreed that Natura 2000 sites and Biologically Valuable Grassland areas should not normally be eligible for afforestation, but in the view of the NGOs this is not an acceptable solution because any afforestation of farmland, irrespective of the location, will inevitably cause losses of farmland bird populations. They argue that In Latvian circumstances further afforestation of farmland has no environmental value or purpose, does not comply with the Community Strategic Guidelines<sup>68</sup> and should not be supported by EAFRD. A more appropriate use of the Axis 2 funds allocated for afforestation of farmland would be to target declining populations of Annex 1 birds by restoring and managing abandoned semi-natural grasslands throughout Latvia and using forest environment payments to improve the biodiversity of existing forests.

#### *Areas with handicaps (formerly Less Favoured Areas)*

LFA payments are perceived to have been an important factor in preventing abandonment of important grassland habitats for birds (despite the fact that few habitat management requirements are attached to the payments). As a result of changes in the national regulations a much smaller area of grassland is likely to be eligible for this type of payment in the 2007-13 programme and unless alternative support is provided much of this ineligible grassland may be abandoned.

On most of LFA grassland land farmers mow the grass because the cattle sector (and especially grazed cattle) is now very small in Latvia. A new national regulation adopted in 2006 is likely to exclude from LFA support significant areas of grassland because it is mown rather than grazed. On grasslands larger than 30 ha. farmers will be required to have a minimum density of 0.2 livestock units per ha, to qualify for LFA payments. This new requirement has apparently been brought in to discriminate against landowners who are so called 'sofa farmers', but it will also exclude active farmers who may not have enough livestock. Most of the Biologically Valuable Grassland areas have so far only been mown (some figures quote as much as 98%) and alternative Axis 2 support is likely to be needed for 'mowing only' management of these and other extensive grasslands if they are to avoid abandonment and survive as farmland bird habitats.

### **9.8 Negative impacts of Axis 1 measures farmland birds**

#### *Drainage of farmland*

Although 60% of Latvian farmland has been drained in the past but most of these systems have been neglected for 10-20 years, allowing natural hydrological regimes to develop and wetland habitats to be re-established. In many places these have become important habitats for breeding waders, including declining Annex 1 species. Although there are no plans to use EAFRD funding to support new land drainage schemes the MoA does propose to use Axis 1 funding to maintain or renew existing farmland drainage systems. An additional incentive for farmers to re-instate long-abandoned drains is the Good Agricultural and Environmental Condition requirement that drains should be kept in good condition. Improved maintenance or restoration of drains could be just as much of a threat to birds as new drainage, and it is

<sup>68</sup> Council Decision of 20 February 2006 on Community strategic guidelines for rural development (programming period 2007 to 2013) (2006/144/EC) Section 3.2 guideline 'To protect and enhance the EU's natural resources and landscapes in rural areas, **the resources devoted to axis 2 should contribute to three EU-level priority areas: biodiversity and the preservation and development of high nature value farming and forestry systems and traditional agricultural landscapes; water; and climate change. The measures available under axis 2 should be used to integrate these environmental objectives and contribute to the implementation of the agricultural and forestry Natura 2000 network, to the Göteborg commitment to reverse biodiversity decline by 2010, to the objectives laid down in Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, and to the Kyoto Protocol targets for climate change mitigation.**'.(our emphasis)

particularly important that this should not happen in Natura 2000 areas, where the priority is likely to be to restore the natural hydrological regime and reverse the damaging effects of farm drainage, not to reinforce them.

This proposed use of Axis 1 funding does not seem to be in line with the Commission Strategic guideline for improving the competitiveness of the agriculture and forestry sector, which states that *'the resources devoted to Axis 1 should contribute to a strong and dynamic European agrifood sector by focusing on the priorities of knowledge transfer, modernisation, innovation and quality in the food chain, and on priority sectors for investment in physical and human capital'*. On farms where renewing drainage systems will destroy habitats used by Annex 1 birds such 'improvements' would seem to directly contradict one of the Commission's key actions for Axis 1, of *'improving the environmental performance of farms and forestry'*<sup>69</sup>.

*Other Axis 1 support for agricultural intensification*

,The biodiversity NGOs are concerned that the large Axis 1 budget will be used for other schemes, such as bio-fuel production, with no safeguards for biodiversity, which will result in large uniform fields of intensively managed single crops, with the loss of habitat diversity and field margins. Tighter Good Agricultural and Environmental Condition definitions could help to avoid loss of habitats as farms increase productivity (see \*\* below).

**9.9 National Strategy and budget allocations for 2007-13**

The Latvian Rural Development Strategy for 2007-2013 is very general and does not prioritise the conservation of farmland birds or other nature conservation issues. A joint working group of biodiversity experts<sup>70</sup> felt that time spent preparing proposals to improve the strategy had been wasted because very few of their proposals were taken in to account by the Ministry of Agriculture or the Institute of the Agrarian Economy. They are more hopeful of influencing the measures in the Plan and have secured support for several biodiversity proposals from the association of agricultural NGOs.

The proposed allocation of 2007-13 EAFRD funding between Axes (at the time data was collected for this report) was:

Axis 1 50%  
**Axis 2 35%**  
 Axis 3 15%

and within Axis 2 .....

measure	% of Axis 2 budget
LFA	50
agri-environment	25
Natura 2000 and WFD	5
afforestation of farmland	5

It seems clear, from the scale, distribution and habitat requirements of declining farmland bird species in Latvia, that restoring and managing semi-natural grasslands is likely to be a critical factor in:

- meeting the government's legal obligations under the Birds Directive to safeguard the habitats of declining Annex 1 farmland species
- delivering the Göteborg target to reverse biodiversity decline by 2010
- ensuring that the Latvian government can demonstrate that rural development funding in Latvia has made a positive contribution to the conservation of farmland birds (measures by changes in the proposed EAFRD impact indicator of trends in the population index of farmland birds).

<sup>69</sup> Council Decision of 20 February 2006 on Community strategic guidelines for rural development (programming period 2007 to 2013) (2006/144/EC) section 3.1

<sup>70</sup> co-ordinated by the Latvian Fund for Nature (LFN), Latvian Ornithological Society (LOB) and the Latvian Entomological Society (LES)

Despite such a strong case for using Axis 2 to support restoration and management of semi-natural grasslands it is not clear that adequate funding will be allocated to measures targeted at these habitats in 2007-13. Specific issues raised by the experts contributing to this study include concerns:

- that a high proportion of the agri-environment budget may again be allocated to organic farming (it used 81% of the agri-environment budget in 2005 but provides limited benefits for birds, partly because there are no requirements to manage the non-farmed areas, such as field margins, for biodiversity);
- that a new horizontal measure to control erosion in intensively farmed areas could also take a disproportionate share of the budget without providing significant benefits for biodiversity and birds;
- whether sufficient funds will be allocated to the measure to maintain biodiversity in High Nature Value grasslands - bearing in mind the extent of existing contracts and the expected increase in the total area of high nature value grasslands (see p\*\*)
- whether any funding will be provided for a proposed new measure for non-productive investments to restore overgrown abandoned biologically valuable grasslands - the longer they are left unmanaged the more difficult and expensive it will be to restore these important habitats;
- about the proposal to allocate half the axis 2 budget to LFA payments (now defined as areas with special needs) when there are few biodiversity management requirements attached to these payments, the future of this measure is under review by the Commission, and the eligible area is likely to be reduced as a result of the new grazing requirements.
- about the use of Axis 2 funding for afforestation of farmland when this will actively and permanently destroy valuable grassland habitats for Annex 1 birds, at a time when agri-environment funding is urgently needed to restore and extensively manage these grassland habitats.

#### **9.10 Agri-environment and Good Agricultural and Environmental Condition**

If properly defined and enforced Good Agricultural and Environmental Condition can safeguard the non-farmed areas and small landscape features which are so important for farmland birds and protect semi-natural habitats from damage or destruction, leaving agri-environment schemes to pay for their management, restoration and improvement.

Biodiversity experts point out that while Annex 1 and other farmland birds may benefit from the requirement to maintain grassland by mowing or grazing, there are other problems with the current definition of Good Agricultural and Environmental Condition:

- wetland habitats used by these birds are being destroyed by farmers complying with a requirement to maintain land drainage systems;
- there is no requirement to protect small landscape features and semi-natural areas on the farm and as a consequence these are excluded from the area payment, providing an incentive for farmers to remove them
- there is no requirement to maintain uncultivated 1 metre wide field margins around arable fields - these (and the wider margins paid for by agri-environment schemes) would be of great benefit to farmland birds.

#### **9.11 Delivery and evaluation of agri-environment measures**

A recent report on implementation of agri-environment measures in Latvia commented that although interest from the farming community was high, information on agri-environment measures for farmers was poor and fragmented, and Paying Agency staff were unable to provide farmers with competent advice<sup>71</sup>. Lack of adequate skills among delivery staff is a problem common to many of the New Member States but in Latvia information on farmland birds and their habitat requirements is available, and at least some training seminars have been held for advisers, project officers and paying agency staff.

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<sup>71</sup> OB Latvia

There are as yet no proposals to evaluate the impact of agri-environment measures in the 2007-13 programme. The same report suggested that fragmentation of responsibilities may cause problems for evaluation, because the Ministry of Agriculture is responsible for the development of indicators and reporting to the Commission, but in practice agri-environment monitoring is the responsibility of Ministry of Environment and is included in National Environmental Monitoring Programme, which is currently being revised and restructured. Some evaluation data will soon be available from areas which are covered by several LIFE projects, and data will gathered for the reporting to EU on the status of Natura 2000 territories but these inventories will not be started until 2006 or 2007 - and this appears to leave large areas of habitats used by Annex 1 birds in the wider countryside without any plans to assess the effectiveness of agri-environment measures targeted at these areas.

## 10 Hungary

**Important note on data:**

Unless other sources are cited the information in this chapter is from a questionnaire survey of local experts in spring/summer 2006, when the proposals for the 2007-13 programme were not finalised. The following information was the best available at the time but may no longer be up-to-date.

### Key points for Hungary 2007-13

*Are conservation priorities for farmland birds adequately addressed in the objectives, targeting and funding of the 2007-13 Rural Development Plan?*

Hungary developed agri-environment programmes before accession that were well received by farmers. Agri-environment schemes are popular and have well-designed and targeted measures for birds, but late payment of agri-environment funds is a big problem for farmers. As a result of temporary national budget deficiencies, agri-environment payments are not paid every year.

In the 2004-06 programme more than 70% of the agri-environment budget is taken by the entry-level arable scheme and the integrated management scheme, which prevent some intensification but otherwise deliver limited biodiversity benefits. Environmental organisations argue that the management requirements and budget allocations for these schemes should be reviewed, and measures taken to increase uptake of high nature value measures.

Natura 2000 payments in 2007-13 will have an important role in ensuring that existing valuable habitats are not altered and in supporting the (often uneconomic) farming systems which maintain them. The national strategy identifies Natura 2000 payments as a tool to achieve sustainable management of agricultural land, but environmental organisations are concerned that EAFRD funding for Natura 2000 will not be sufficient.

Axis 3 measures for conservation and upgrading of the rural heritage could be the only possible source of funding for Natura 2000 management plans, as there is no other budget.

*Is the design of agri-environment schemes and measures fit for the purpose of safeguarding and managing farmland habitats for the conservation of farmland birds?*

There are very well designed measures for Great bustard, Corncrake and other birds in high nature value (ESA) areas, with complex requirements. Specialist environmental staff from the National Parks (MoE) are closely involved in its design, delivery and control, which is a significant factor in its success, and advice from Natural Park experts helps farmers to comply with requirements. This measure deserves more uptake in the future.

There is a serious risk that traditional farming systems in high nature value areas and 'tanya' will disappear, with the loss of valuable habitats and populations of Annex 1 birds. High agri-environment payment rates will help to keep this form of management alive in the future.

Farmers in these traditional farming areas would also be helped by carefully targeted Axis 1 and 3 support to draw economic benefits from their high levels of environmental management (producer groups, co-operatives, accreditation schemes)

The relative payment rates of the two schemes make the integrated management scheme attractive but discourage farmers from joining the organic scheme, which would be of greater environmental benefit. The organic movement has a history of more than 20 years in Hungary and if controls became more effective, and payments rates were revised this scheme could be more attractive.

A horizontal scheme for grass margins on arable land could be of great benefit to farmland birds and biodiversity generally but has minimal uptake despite good payment rates, apparently due to lack of information and advice for farmers

*What are the barriers to delivering appropriate, targeted and effective agri-environment measures for the conservation of farmland birds?*

Problems with the national share of rural development funding for 2004-06 have led to serious delays in payment which put at risk farmers' positive attitude to agri-environment schemes and the biodiversity management of important sites.

Natura 2000 legislation has been in place since 2004 but problems with incompatible IACS and Natura 2000 mapping systems made it impossible for farmers to identify Natura boundaries in the ground.

Training for farmers is an obligatory part of every agri-environment scheme but the present system is not effective and the potential benefits are often lost because most NRDP advisors have very little environmental knowledge.

Control of farmers' compliance with agri-environment measures is poor, partly because paying agency staff have little or no environmental knowledge.

Control of Good Agricultural and Environmental Condition and other cross-compliance requirements is not effective - for example, although permission is required from the environmental authorities to convert grassland to arable in high nature value and Natura 2000 areas farmers often ignore this

*What is the effect of other CAP policies on the delivery of effective agri-environment schemes for the conservation of farmland birds?*

LFA measures have taken a relatively small proportion of the budget but would be of greater environmental benefit if they were more focused on high nature value areas, and not used to support intensive farming

The comprehensive list of environmental requirements in Good Farming Practice will be replaced in 2007 by Good Agricultural and Environmental Condition as the baseline management requirement for agri-environment and other Axis 2 measures. There were several requirements in GFP which, if transferred to Good Agricultural and Environmental Condition for 2007-13, would bring great benefits to farmland birds, place few additional demands on farmers and make more effective use of agri-environment funds. These are:

- to use bird-friendly mowing techniques (from the middle outwards, see p\*\* for details);
- to preserve small ponds and
- to inform environmental authorities when the nests of protected birds are found.

There have been some problems of conflict between Good Agricultural and Environmental Condition requirements and traditional management of high nature value areas which could be resolved by implementing the policy advice of the national park authorities and offering derogations to farmers in agri-environment and Natura 2000 schemes.

## 10.1 Agriculture in Hungary

Hungary has much more arable land (almost half of the territory) and slightly less forest (19%) and grassland (11%) than the EU average<sup>72</sup>. Around 40% of the farmland is owned and managed by private farmers, mostly as small subsistence units. The remainder are large

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<sup>72</sup> ref OB

enterprises, mainly on tenanted land<sup>73</sup>. The main crops are wheat and maize, and there are significant problems of soil erosion and compaction and loss of biodiversity as a result of previous farming methods, and the use of areas unsuited to arable cultivation. Soil conditions are better than those in many Western European countries but soil erosion on agricultural and forest land affects 40% of the country, mainly due to inappropriate land use and cultivation techniques in vulnerable areas<sup>74</sup>.

## 10.2 Annex 1 farmland birds in Hungary

Hungary has seventeen of the twenty Annex 1 farmland birds targeted by BirdLife as key species to be supported through agri-environment schemes in the New Member States, including two globally threatened birds - the Imperial Eagle and the Aquatic warbler (58% and 15% respectively of the EU25 populations are found in Hungary). There are also major populations of other Annex 1 birds in unfavourable conservation status - 89% of the EU's Red-footed falcon, 39% of the Lesser grey shrike populations and more than 10-14% of the EU25 populations of three species of heron.

Many of the 40 IBAs used by these birds are almost entirely farmland and together they account for a total of more than 700000 hectares of agricultural land, much of it designated as Natura 2000. Arable land is a major habitat but there are extensive areas of unimproved permanent dry grassland, steppe and pseudo-steppe habitats, mixed traditional farming, permanent crops and wet grassland.

Please see Annex \*\* for more details of important farmland birds and their habitats in Hungary.

## 10.3 Threats to existing farmland habitats for Annex 1 and other birds in Hungary

### Arable land

Commercially farmed arable land dominates the Hungarian landscape especially in the Great Plain, but there are considerable regional variations from grassland/arable mosaics to large arable fields growing a single crop with no field margins. Arable land is important for the Great Bustard, Imperial Eagle, Roller and other species<sup>75</sup>. Threats to arable habitats include:

- afforestation
- intensification (more fertilisers, fewer crop types)
- lack of field margins
- monocultures
- energy crops

### Unimproved Grasslands

The grasslands of Hungary are very diverse, with steppe, pseudo steppe, montane grassland, pastoral woodland and wet grasslands (areas that have high water tables or are periodically flooded, including riverine and lakeside flood-meadows, polders, and upland rough grassland) Traditional pastoral agriculture still survives, with indigenous cattle, sheep and horses, but few of the younger farmers have the necessary skills (and most farm advisers have to obtain their information from books) because their generation is more familiar with the intensive livestock production systems of the collective and state farms<sup>76</sup>. Grasslands are important for Corncrake, Great Bustard and Imperial Eagle many other Annex 1 birds<sup>77</sup>. The main threats to these grassland habitats are:

- abandonment, leading to shrub invasion;
- declining numbers of grazing livestock, and the cost of purchasing grazing stock
- no market for hay or animals
- ploughing up

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<sup>73</sup> DG Agri overview

<sup>74</sup> ref Elco report

<sup>75</sup> Falco vespertinus , Glareola pratincola , Lanius minor , Falco cherrug, Burhinus oediconemus , Circus pygargus, Ciconia ciconia,

<sup>76</sup> Elco report

<sup>77</sup> and Coracias garrulus , Falco vespertinus , Glareola pratincola , Lanius minor , Falco cherrug, Burhinus oediconemus , Circus pygargus, Ciconia ciconia, Acrocephalus paludicola, Porzana porzana, Milvus migrans, Aquila pomarina, Ciconia nigra, Circaetus gallicus

- afforestation.
- canalisation of rivers (and the recent drier climate) lowers the water table and threatens wet grasslands.

### Mixed traditional farming

These traditionally managed areas have a mosaic of different arable crops, grasslands and perennial crops, providing a very wide range of habitats for birds. Much of the land is jointly owned and often farmed by someone other than the owner. The main threats are:

- foreign procurement
- state purchase of large areas, followed by the creation of monocultures
- rural poverty
- lack of markets for products

### Perennial crops

Hungary has a long tradition of vineyards and orchards, which are the dominant habitat in some regions. Most of them are intensively managed, but traditional extensive orchards survive, especially near the Tisza river. Often the land is jointly owned and in common use. The threats to these areas are the same as those for mixed traditional farming.

## 10.4 Opportunities to create new habitats for farmland birds

In addition to the need to address the threats to existing Annex 1 bird habitats outlined above, there are significant opportunities to create new habitats for farmland birds. The following table identifies these opportunities, the preferred locations and the birds which would use the new habitats.

Farm type	Opportunity	Opportunity to improve breeding or feeding areas for:
Arable	Preferred management for birds will depend on the species targeted, but could include: chemical free borders to arable crops, managed but not seeded managed fallow; more than 20% rape or alfalfa in the crop rotation; deferment of harvest until 15 July; no cultivation between 15 April and 15 July; approximately 5% higher plants in the seed mix; use of crop rotation with plants giving green coverage all year with root plants organic cropping (where it does not cause disturbance) row crops sown in spring 20 square metres of non cultivated patches in autumn corn leaving stubble for a long time, leaving corn stubble all winter mixed farming ; hedges; wetland habitats with long term non-cultivation managing land for breeding Lapwing, near grassland if possible, by ploughing in November, maintenance work in February, and no cultivation from March to middle of July) wild bird cover crops, corn, cole crops, flax long term management set-aside	Montagu's harrier <i>Circus pygargus</i> Roller <i>Coracias garrulus</i> Lesser grey shrike <i>Lanius minor</i> Stone curlew <i>Burhinus oedichnemus</i> and White stork <i>Ciconia ciconia</i>
Grassland	maintenance of grassland with short grass, prevention of high grazing density, development of diverse grassland structure, preservation of landscape elements, prohibition of burning of wasteland, prohibition of poisoning crows flooding of grassland restoration of mowed meadows, late mowing, drum	Lesser spotted eagle <i>Aquila pomarina</i> Red-footed falcon <i>Falco vespertinus</i> Great bustard <i>Otis tarda</i> Montagu's harrier <i>Circus pygargus</i> Roller <i>Coracias garrulus</i> Lesser grey shrike

	mower, leaving of non mowed line, drawn aside mowing, mowing by hand, using small machines, mowing small parcels growing of alfalfa, establishing grassland maintenance of grasslands with trees	<i>Lanius minor</i> Collared pratincole <i>Glareola pratincola</i> b u Aquatic warbler <i>Acrocephalus paludicola</i> and Spotted crane <i>Porzana porzana</i>
Rice	growing organic rice drains inside rice fields 40 cm deep and 60 cm wide	Squacco heron <i>Ardeola ralloides</i> and Night heron <i>Nycticorax nycticorax</i>
Orchards	maintenance of old orchards with high trees  grassy spaces between lines of grapes cultivated on poles  conditioning of changing area natural regeneration more than 20 meters,  no use of chemical weed control until July, chemical weed control instead of mechanic weed control)	<i>Streptopelia turtur</i> , <i>Alauda arvensis</i> , <i>Perdix perdix</i>

### 10.5 Agri-environment measures for farmland birds 2007-13

Hungary has had a well-developed agri-environment programme since 2002 which is popular with farmers. A recent report on rural development in Hungary, commenting on the 2004-06 rural development plan, noted that:

'The measures ... selected for implementation seem to show a fairly strong grasp of the environmental measures, with funds allocated for agri-environment and LFA amounting to more than half of the total budget. However the assessment of the plan showed that it lacks clear, quantified environmental objectives and the indicators to measure these. There are some very environmentally targeted measures, especially the agri-environmental ones, whereas for example the LFA scheme completely failed to address the issue adequately. In addition, the plan has an overall production-based approach with soil erosion being the top priority when environmental concerns are discussed.'<sup>78</sup>

The current agri-environment measures are likely to be continued in 2007-13, with some modifications, and will be delivered as part of a new system, with three levels of management requirements for each farm:

- i. compulsory requirements
- ii. requirements of which one must be chosen by the farmer (nutrient management, crop protection, soil protection, cropping structure, other agri-environment management)
- iii. voluntary requirements.

#### *Agri-environment measures targeted specifically at farmland birds*

The 2004-06 programme has three measures specifically targeted at birds and another which benefits them by supporting food supplies for insect-feeding birds. It is likely that these will not be altered significantly compared to the last programming period. The most effective way of improving habitat management for Annex 1 birds would be to focus on increasing the uptake of these measures within the eligible areas. (A fifth measure, for bird-friendly management of fishponds on farms, will have to be funded under the aqua-environment measures of the fisheries fund in 2007-13). The four measures are:

#### **High Nature Value Area Schemes (ESAs)**

This zonal scheme applies to both arable and grasslands, which took almost 12% of the agri-environment budget in 2004-06. The eligible area is currently about 10% of the agricultural land (including seven IBAs<sup>79</sup>) and this is expected to increase to about 15% in 2007-13, taking about 15-20% of the agri-environment budget.

<sup>78</sup> ELCO ref

<sup>79</sup> These are 8, 9, 15, 26,37, 44, 51 as described in Table \*\* and Map\*\*

### *Comments*

This is a well targeted scheme with complex management requirements based on nature conservation experience with special measures for a) corncrake, b) great bustard, c) farmland birds using different types of crop (arable in general, alfalfa for great bustard, and grassland). It requires major changes in management practice and farmers' concerns about the complexity can be overcome by good advice, often from National Park staff. Payment rates make this measure very attractive. The main problems with farmers arise with late mowing as the late hay has much less nutritive value for livestock.

### **Tanya (small farming system) scheme**

This zonal scheme applies only to a very small proportion of the farmed land and only to farmers of a 'tanya', a traditional arable system in certain areas of the Great Plain with a mosaic of small parcels of crops, providing valuable habitats for birds. It takes just under 5% of the 2004-06 agri-environment budget and this proportion is expected to rise to perhaps 8% in 2007-13.

### *Comments*

The management requirements are targeted at landscape conservation (mosaics) and the protection of low-input management systems and at protecting a farming system at serious risk of disappearance. Many of these areas could be used for intensive agriculture, which would mean much less biodiversity. Although relatively little change in management is required, the systems are labour intensive and uneconomic and high payment rates will be the key to keeping this form of management alive in the future.

### **Reed Management**

This horizontal measure applies to managed reedbeds and is directly targeted at the requirements of wetland birds. It took less than 1% of the agri-environment budget in 2004-06.

### *Comments*

The management requirements are very effective in protecting birds' nesting and feeding places<sup>80</sup>. The requirements do mean changes in usual management practice but the relatively high uptake (compared to overall reed cover in the country) shows that payment rates make this measure attractive enough. Only some very intensive reed management companies with a solid export market are not likely to apply for it. Many of the national parks have applied for this scheme.

### **Apiculture**

This applies to all arable land and prohibits the use of fertilisers and pesticides and specifies the cultivation of plants for bee keeping purposes.

### *Comments*

This measure takes a very small fraction of the budget and is unlikely to gain more significance in the future, but about 75% of the farmland in Hungary is eligible and from an environmental point of view it is still a good way of preventing intensification in areas where this is obviously not profitable. It definitely increases the variety of insects in the area, which provide food for many birds.

### *Other agri-environment measures*

Of the other horizontal measures one could be of much greater benefit to farmland birds with better uptake - although more than 75% of the farmland in Hungary is eligible this measure used less than 1% of the agri-environment budget in 2004-06.

### **Grass margins**

This horizontal measure, for unfertilised grass margins on arable fields, is targeted at providing green corridors and habitats for animals and plants but has wider environmental effects (on chemical diffuse pollution of water bodies and the soil). It could be a very important measure for farmland birds as few farmers use margins now, the measure is not difficult to

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<sup>80</sup> e.g. any management can undertaken between 15 December and 15 February; 20% of the reeds must be left untouched each year; at least 10 cm high stubble must remain after harvest

comply with and has attractive payment rates, but the uptake has been very low. This is very much due to the lack of information for farmers.

Two other horizontal measures which together have used 60-70% of the 2004-06 agri-environment budget have more limited benefits for birds. The very popular **Arable Stewardship Scheme** (for which applicants are selected using a points system) limits inputs of chemicals and fertilisers<sup>81</sup> and has taken almost 45% of the current budget. The management requirements are easy to meet, mainly because most Hungarian farmers cannot afford expensive chemicals or fertilisers - for example the requirements limit nitrogen supply to 170kg/ha but the average use in Hungary in 2004 was 58 Kg/ha (on arable crops, gardens orchards and vineyards)<sup>82</sup>, The payment rate may therefore be considered too high at present. If effectively controlled the scheme is likely to prevent large-scale intensification of arable production in many areas, providing some safeguards for biodiversity generally.

Another popular horizontal scheme with limited use of fertilisers and plant protection products and low intensity irrigation is the **Integrated Management Scheme**, for both arable and perennial crops, taking almost 30% of the current budget. Farmers using very intensive methods can usually find effective pesticides which are approved by this scheme - the biodiversity benefits would be improved with a more restrictive and "greener" list of approved plant protection products. The payment rates are too high compared to organic farming, providing no incentive to join the **Organic Management Scheme**, a horizontal scheme that covers arable crops, perennial crops, steppe and pseudo-steppe habitats and wet grasslands. It takes only 5-8% of the budget, but the payment rate in itself is rarely high enough to encourage farmers to join the scheme, so it is taken up mainly by farmers who are conservation minded or receive advice, or are offered trading (usually export) opportunities for organic produce. Although it is of more benefit to birds the organic scheme cannot compete with the higher payment rates of the integrated farming scheme (which allows the use of pesticides and herbicides, reducing biodiversity and food supplies of insects and native plants).

In addition to the new three tier structure for agri-environment schemes in 2007-13 several revised or additional schemes are proposed, for :

- arable
- grassland
- plantation schemes (orchards, energy crops)
- livestock
- conservation of genetic resources
- flood prevention reservoirs established along the River Tisza
- Natura 2000 site schemes
- Water Framework Directive

There are no proposals to introduce non-productive investments to support agri-environment schemes, although these could be of particular benefit for:

- special game (bird) alarm chain attached to the tractor to protect Great Bustards;
- construction of small dams, channels etc to improve the hydrological regime for birds;
- conversion of arable land into grassland;
- removal of non-indigenous invasive shrubs, using special equipment.

## 10.6 Managing Natura 2000 areas

National Natura 2000 legislation came into force in autumn of 2004, affecting 20% of Hungary's territory and doubling the area under nature protection. The maps with the legislation were only indicative, showing the locations of sites but not detailed site boundaries, so farmers do not know exactly which parts of their farms lies within a Natura 2000 site.

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<sup>81</sup> Compulsory soil investigation, nutrient management plan, nutrient supply limited to a maximum of 170 kg N/ha/year, chemicals with high environmental risks cannot be used.

<sup>82</sup> István Szucs Studies in agricultural economics, 2004, Research and Information Institute for agricultural economics, Budapest, 2004, quoted in OB...

According to the ELCo report this was due to incompatibility of the geographical information systems developed by the paying agency and the conservation authority, and the lack of accurate published boundaries made it impossible to implement Article 16 measures in the 2004-06 programme, and difficult to target other rural development measures at Natura 2000 sites<sup>83</sup>.

#### *Legal restrictions*

In Natura 2000 sites (which include parts or all of 40 IBAs having a total of more than 700,000 ha of farmland) permission is required for ploughing and reseeded of grassland, restoration of land, change of use of cropland; cutting and introduction of trees, groups of trees and trees on pastures which are not protected by the forest regulations.

#### *Natura 2000 payments and other EAFRD support*

The 2007-13 programme is will include new measures for Natura 2000 and areas affected by the Water Framework Directive. There is considerable overlap between high nature value(ESAs) areas (which have a well targeted agri-environment scheme for Annex 1 birds) and Natura 2000 areas so it will be essential to make clear what the two different schemes are paying for and to ensure that none of the benefits of the existing scheme are lost. It is expected that agri-environment payment rates for all schemes will be higher in Natura 2000 areas than elsewhere which should encourage uptake.

On the large areas of farmland within Natura 2000 sites in Hungary the high levels of biodiversity may depend on traditional and extensive methods of farming with inherently low productivity, and farmers often have difficulty finding markets for their produce. Given the scale of Natura 2000 farming in Hungary there would seem to be potential for both Annex 1 birds and farmers to benefit from support from other Axes for:

- a quality assurance scheme linked to the management of Natura 2000 habitats for birds (Article 32)
- setting up supply chain co-operatives (Article 29), producer groups (Article 35) and micro-enterprises (Article 54)
- preparation of Natura 2000 management plans under Article 57(a) - this was proposed by WWF Hungary and a sub-measure drafted by the Ministry of Environment but it had not been included in the draft plan at the time information was collected for this study, despite the fact that Natura 2000 is mentioned in the national strategy in relation to community policies. WWF point out that this will be the only way to get Natura 2000 plans in place as there is no other budget or government resources available.

### **10.7 Negative impacts of Axis 2 measures on farmland birds**

#### *Areas with handicaps (formerly Less Favoured Areas)*

Unlike many other countries Hungary allocated only a small proportion of 20004-06 rural development funding to LFA support but the existing payments have relatively few environmental requirements and these will be further reduced when Good Agricultural and Environmental Condition replaces GFP (see below). Environmental experts suggest that in future these payments should focus much more on high nature value farming, and should not be used to support the continuation of intensive farming in areas where this is damaging the environment.

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<sup>83</sup> ref Elco

## 10.8 Axis 1 measures and farmland birds

*Early retirement, support for semi-subsistence farms, and modernisation of agricultural holdings*

These measures could help farms that are not economically viable to restructure and invest, thus avoiding abandonment and perhaps making agri-environment schemes more attractive. But on the other hand there is a real risk that changes in farm size and structures, and loss of will lead to more uniform and intensive systems of production with loss of valuable wildlife habitats particularly the mosaics of traditional farming systems and small landscape features.

The rates of farm investment grants will be higher in Natura 2000 areas than elsewhere, and it has also been suggested that applications from farmers in agri-environment schemes should be given priority. Care will be needed to ensure that these applications are in accord with the Commission's key action for Axis 1, of *'improving the environmental performance of farms and forestry'*<sup>84</sup>, and do not risk destroying wildlife habitats in the course of improvement (for example by drainage, road building etc)

## 10.9 National Strategy and budget allocations for 2007-13

The Hungary Rural Development Strategy for 2007-2013 lists high biodiversity as a strength and the loss of biodiversity in Hungary as agri-environmental problem. Where specific objectives are listed, Natura 2000 payments are mentioned as a tool to achieve sustainable management of agricultural land and to increase biodiversity of the forest environment, but neither Natura 2000 nor biodiversity are mentioned in the description of measures of Axes I., III or IV.

The proposed allocation of 2007-13 EAFRD funding between Axes (at the time data was collected for this report) was:

Axis 1 40-45%  
**Axis 2 36-37%**  
Axis 3 10-14%  
Axis 4 5-6%

The respondents to the questionnaire survey for this study expressed two concerns about the budget allocations:

- that basic horizontal measures such as the arable stewardship scheme and the integrated farming scheme could again take a disproportionate share of the budget without providing significant benefits for biodiversity and birds;
- whether sufficient funds will be available for the new Natura 2000 measures a recent report gives a rough estimate of an annual cost of €8 million to establish and manage the Natura 2000 network<sup>85</sup>; - this would be less than 4% of the Axis 2 budget.

## 10.10 Agri-environment and Good Agricultural and Environmental Condition

If properly defined and enforced Good Agricultural and Environmental Condition should safeguard the non-farmed areas and small landscape features which are so important for farmland birds and protect semi-natural habitats from damage or destruction, leaving agri-environment schemes to pay for their management, restoration and improvement.

*Good Farming Practice 2004-06*

The GFP requirements have been reduced from 64 to 23 during the life of the plan, but biodiversity experts point out that some of the requirements limit the uptake and effectiveness

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<sup>84</sup> Council Decision of 20 February 2006 on Community strategic guidelines for rural development (programming period 2007 to 2013) (2006/144/EC) section 3.1

<sup>85</sup> ref Elco

of agri-environment schemes for birds, particularly in high nature value areas. Concerns include:

- prohibiting traditional methods of livestock grazing (using pigs, and winter grazing) has effectively excluding areas managed in this way from agri-environment payments. Both are traditional methods of managing high nature value areas, Winter grazing has a positive effect on birds and small game by breaking up the snow cover and helping them to find food, and also helps farmers to feed their animals more naturally and improve their welfare by allowing them to move in winter. is supported by experts Winter grazing was not clearly defined (by date, weather or snow cover?) and advice from the local National Park directorate was ignored.
- restrictions on parcel sizes are contrary to the objectives of some agri-environment measures (for example the measure that aims to improve habitats of Great Bustard contains the restriction that a parcel cannot be bigger than 40 hectares). Instead parcel sizes characteristic of the local high nature value farmland should be safeguarded and maintained, and the development of new parcels following the traditional parcel structure should be part of the measures. The regional and local character of the Hungarian landscape is so unique in different parts of Hungary, that a uniform parcel structure is completely inappropriate and would lead to the destruction of the traditional landscape and the natural values of Hungary. National Park Directorates should be asked for advice and the regulation should deal with the summer folds of the animals as well, not just with the night folds. The location of parcels should be taken into account because some measures can be achieved more effectively on neighbouring parcels.
- mowing should be required on land not used as pastures, and abandoned grasslands that are not grazed by animals should be mowed at least once a year;
- the new version of the ESA regulation no longer has an important requirement that only with natural materials should be used to mark site borders, and neither the field boundaries nor the spot markers should be made of plastic or metal;
- more flexibility is needed - for example for farmers have difficulty meeting deadlines on nutrient management for the whole farm.

#### *Good Agricultural and Environmental Condition 2004-06*

The basis for cross-compliance since 2004 has fewer requirements, none of which will have much direct benefit for birds, although preventing the spread of invasive plants could be very helpful in maintaining open habitats, (but it is not controlled properly because inspectors do not have much knowledge of plants). Biodiversity experts have also pointed out that some applications of the current Good Agricultural and Environmental Conditions could damage bird habitats and high nature value areas:

- the ideal time of stubble ploughing (for birds) will vary in each region of Hungary so only general rules would be needed which could be modified and adjusted according to the actual region or measure;
- erosion is not clearly defined, nor are unwanted plants (some weeds are protected species)
- over and under grazing should be defined more precisely according to the local conditions and farmers should be helped in determining the proper level of grazing, otherwise the proper level of grazing cannot be guaranteed. Local advisors are needed, leaflets and brochures are insufficient.
- cultivation with machines can damage soil structure (compaction cannot be evaded, only minimalised) and deep cultivation could be the opposite of some ESA measures.

#### *Good Agricultural and Environmental Condition 2007-2013*

This has not yet been defined but there are some key changes to the current definition of GAEC which would make this a much more effective baseline for agri-environment schemes:

- i. a requirement to inform the local national park directorate when the nest of a protected species of bird is found (this was included in GFP 2004-06);
- ii. small ponds must be preserved (this was included in GFP 2004-06);
- iii. mowing should be 'bird-friendly', from the middle of the field towards the edges (this was included in GFP 2004-06);

- iv. resolving the conflicts with agri-environment schemes described above between Good Agricultural and Environmental Condition and, by offering derogations to farmers in agri-environment schemes.

The rules on the preservation of the overall area of permanent pasture appear to be failing to protect some valuable semi-natural habitats from ploughing up. Grasslands can be converted into arable or other land use after notifying the Field Registry Office, but in case of protected areas (ESAs and Natura 2000 sites) the official permission of the environmental authority is also needed and in practice hardly ever given. In many cases farmers simply break the law and do the conversion without asking for permission, despite the threat of a fine if the authority notices.

### **10.11 Delivery and evaluation of agri-environment measures**

#### *Delivery*

Design, delivery control and evaluation agri-environment schemes is the sole responsibility of MARD and the paying agency - except for the zonal high nature value (ESA) measure, where responsibility is shared with the Ministry of Environment and its institutions (the 10 national parks which were the conservation authorities until 2005). The national park field experts sometimes act as RDP advisers and assist paying agency staff to carry out field checks, and also provide informal advice to farmers - a system which seems to work well in most cases. The only other source of specialist advice on nature conservation and farming is a business operated by the BirdLife Hungary.

Once every two years all farmers participating in an agri-environment scheme are required to attend a training course run by RDP advisers. There are obligatory parts of this training that, in ESAs, should cover the natural value of the area (including birds), the environmental objectives of the scheme and why and how the given requirements should be adhered to. But the full environmental benefits of compulsory training are often lost, because only a few of the NRDP advisors have sufficient environmental knowledge, and in many cases the essence of the scheme is forgotten.

Lack of environmental skills among paying agency staff and unsatisfactory levels of control outside ESAs means that when farmers fail to comply with agri-environment requirements (whether through lack of understanding or deliberate cheating) accidental or deliberate) this is often not corrected.

There have been major problems with severely delayed payments under the RDP - no agri-environment payments were made to farmers in 2004 and none are expected in 2006. The government tends to postpone payments each year, although eventually the full amount will be paid. If this cannot be resolved (by adequate and timely provision of Hungarian government co-finance for the rural development programme) there is a real risk that farmers will be discouraged from entering schemes or will feel under no obligation to continue the required management if they are not paid.

#### *Evaluation*

Pilot monitoring of both agri-environment outputs and impacts has started in two ESAs, where farmland bird populations are also monitored. No results are known yet.

In the 2007-13 programme the outcome indicators for the agri-environment measures are:

- the rate by which agricultural input is decreased in the areas affected by the measure;
- the change in the area and state (based upon a description) of high nature value areas affected by the measure;
- the change in the area of valuable wetlands affected by the measure;
- gross nutrient balance in areas affected by the measure.

The description of high nature value areas will probably include a description of how the population of farmland birds is changing. Evaluation based on all the other indicators will only

contain indirect effects for farmland birds or Annex 1 species - although bird populations will be monitored by BirdLife Hungary outside high nature value areas this will not be synchronised with data collection for any of the rural development measures. The ELCo project proposed that outcome indicators should also include the area affected by invasive plants in floodplains and the existence of a mosaic type landscape in high nature value areas, and output indicators should include biodiversity activities supported by Axis 1 and Axis 3 - for example the number of high nature value farmers given other grants (investment aid, infrastructure etc.) and the number of Natura 2000 management plans in place<sup>86</sup>.

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<sup>86</sup> ref Elco

## 11 Poland

**Important note on data:**

Unless other sources are cited the information in this chapter is from a questionnaire survey of local experts in spring/summer 2006, when the proposals for the 2007-13 programme were not finalised. The following information was the best available at the time but may no longer be up-to-date.

### Key points for Poland

*Are conservation priorities for farmland birds adequately addressed in the objectives, targeting and funding of the 2007-13 Rural Development Plan?*

Poland's agricultural land, especially the extensive grasslands and mixed traditional farmland, supports a very large proportion of the EU25 populations of five Annex 1 birds in unfavourable conservation status including three which are also of global conservation concern - Aquatic Warbler (77% of the EU25 population), Corncrake and Great Snipe (28% and 25% respectively). Poland also has much larger numbers of White Stork than any other Member State (41% of the EU25 population), and has 21% of the Lesser Spotted Eagle and 25% of the Spotted Crane populations.

There are 87 IBAs with farmland habitats, but the farming systems on which these birds depend are not restricted to these areas and, without intervention in 2007-13, are unlikely to survive threats of intensification, change to other uses or abandonment. In the three years from 2000-03 the Farmland Bird Index for Poland declined by 13%.

The current 2004-06 agri-environment programme has failed to protect key habitats used by these birds. By April 2007 it is forecast that Poland will have spent less than 35% of the agri-environment budget for 2004 - 06 and only about 4% of Polish farmers will have applied for agri-environment contracts - this is for an agri-environment programme that was very much reduced in scope during the months just before accession, in a Member State with large areas of high nature value farmland threatened by abandonment and intensification.

The delay in implementation of Directives 79/409 and 92/43 in Poland means that many Important Bird Areas will not be legally protected from agricultural change or be eligible for Natura 2000 compensation payments in 2007. Agri-environment payments will be needed to 'fill the gap' by supporting extensive grassland management and mixed traditional farming.

To meet the EU 2007-13 Guidelines on protecting and developing high nature value farming systems the first priority for agri-environment funding in all Member States should be to secure long-term conservation management of existing high nature value farmland habitats used by Annex 1 birds and other protected species. In Poland's case this means targeting agri-environment schemes at the large areas of mixed traditional farmland and unimproved grasslands, including the 1.5 million ha of farmland in IBAs. Delivering these schemes will require major investment in the farm advisory system and a significant increase agri-environment funding for measures targeted at biodiversity.

*Is the design of agri-environment schemes and measures fit for the purpose of safeguarding and managing farmland habitats for the conservation of farmland birds?*

In the current programme 70% of the agri-environment expenditure has been allocated to 'shallow' measures of relatively little benefit to birds and there are concerns that this will happen again in 2007-13, at a time when the threats to high nature value farmland are likely to increase as agricultural production intensifies.

In the 2004-06 programme only one package (of two measures for extensive grassland) was targeted at habitat management for birds and this was confined to priority areas, excluding all or part of 24 Important Bird Areas. There was little uptake of the pastures (grazed) measure

because the payment rates were too low, but there was more interest in the (mown) meadow measure from farmers without livestock, including absentee owners. Another measure, for grass buffer strips on arable land, which could have been of considerable benefit to birds, had very little uptake, again because of low payment rates

For the 2007-13 programme, proposed new measures targeted at maintaining extensive grasslands are more likely to appeal to farmers and should be available throughout the country. These are expected to have additional options targeted at breeding Corncrake and Aquatic Warbler - but the success of such measures will depend on the delivery system having a much improved technical capacity to identify appropriate habitats, provide advice to farmers and control implementation, and it is not clear if this is a priority.

The new grassland measures could be supplemented by using non-productive investments to build small dams to create new areas of wet grassland.

A proposed measure for field mosaics has the potential to provide much needed support for high nature value traditional farming systems if presented as part of a package of rural development measures from all three Axes, designed to address the economic and social problems of high nature value farming systems as well as their environmental management.

Many important wet grasslands on riverside pastures in Eastern Poland are common grazings, where farmers are unable to claim agri-environment payments under current rules.

*What are the barriers to delivering appropriate, targeted and effective agri-environment measures for the conservation of farmland birds?*

Delivering effective agri-environment schemes to protect birds and other biodiversity on more than 1.5 million ha of farmland in IBAs is a major task, particularly when farms are small and agri-environment is a completely new concept for most farmers (and their advisers).

There have been serious delivery failures in 2004-06 due to inadequate resources, technical capacity and environmental management skills of advisers and paying agency staff. If these are not addressed as a matter of urgency it is difficult to see how the revised agri-environment programme will be able to deliver the government's obligations to protect habitats for important Annex 1 birds from the two major threats of intensification and abandonment. Improved environmental training of advisers and paying agency staff will be particularly important for the delivery of grassland measures targeted at Corncrake and Aquatic Warbler.

Because the current delivery system has not been able to cope with simpler measures, consideration should be given to phasing the introduction of complex (and potentially very valuable) biodiversity specific measures such as those for mixed traditional farmland. If these were offered initially in 2007 in limited areas, using specially trained teams of advisers, the experience gained could be used to make their wider delivery more effective, and the delayed introduction would give time to train more specialist advisers.

*What is the effect of other CAP policies on the delivery of effective agri-environment schemes for the conservation of farmland birds?*

Small landscape features and unimproved permanent grassland are both important for birds but have not been adequately protected by Good Agricultural and Environmental Condition cross-compliance and by controls on grassland conversion,

LFA payments have taken a much larger share of the current budget than agri-environment measures and an opportunity has been missed to attach more demanding conditions for biodiversity management.

Semi-natural grasslands and other existing habitats of value to birds are not adequately protected from damage caused by EAFRD funded afforestation, farm improvement and land consolidation schemes.

## 11.1 Agriculture in Poland

### Farming

More than 50% of the land in Poland is farmed and half of this is classified as Less Favoured Area. There are still significant areas of mixed traditional farming in the south and east, but these farms are not economically viable. Unlike many New Member States, most of the farmland in Poland remained outside the state system and the majority of farms are still small, varying in average size from 3 ha in the mixed traditional farming area of the south-east to 17 ha in the north. The proportion of the population working in agriculture is far higher than the EU average and varies from 9% in some regions to more than 30% in the areas where traditional farming systems predominate. Many farms are semi-subsistence and fragmented - more than 18% of farms have six or more dispersed plots of land. It is quite common for farms or parcels of land to be owned and managed by people living and working in urban areas. Other problems facing rural areas include poor levels of education, poor access to financial services and an underdeveloped infrastructure. In the period between independence and EU accession the level of agricultural inputs and the number of livestock fell significantly.<sup>87</sup>

## 11.2 Annex 1 farmland birds in Poland

Poland's farmland accounts for 10% of the EU25 total but it provides breeding and feeding grounds for a very much greater proportion of Europe's threatened farmland birds. Of the twenty Annex 1 farmland bird species targeted by BirdLife for support through agri-environment schemes, seven species have more than 13% of their total EU25 population in Poland, including:

- a greater proportion than any other New Member State of the EU25 population of three birds of wet grassland, which are all of global conservation concern under the IUCN Red List criteria and in unfavourable conservation status in Europe - 77% of the Aquatic Warbler, 28% of Corncrake and 25% of Great Snipe;
- a much larger proportion (41%) of the EU25 population of White Stork than any other Member State and 21% of the Lesser Spotted Eagle population; both in unfavourable conservation status in Europe;
- large numbers of Spotted Crake and Montagu's Harrier (25% and 13% respectively) and of six species in the farmland bird index - Yellow Wagtail (34.5 % of EU population), Whinchat (24.7% of EU population), Eurasian Skylark (23.1% of EU population), Yellowhammer (19.7% of EU population), Barn Swallow (19.7% of EU population) and Red-backed Shrike (14.1% of EU population).

More than 1.5 million hectares of Polish farmland is classified as IBAs - nearly 10% of all farmland. There are 87 IBAs with farmland habitats, mainly mixed traditional farmland and unimproved grasslands, but 34 of them have not been designated as SPAs. Although the large areas of high nature value farmland within these IBAs do not yet have the protection and benefits of SPA designation, the Polish government may already have a legal obligation under EU environmental law to avoid the deterioration or pollution of these IBA farmland habitats<sup>88</sup>. If the government is to fulfil both these and its Natura 2000 obligations, much higher priority and a significantly bigger budget will have to be given to agri-environment measures specifically targeted at threats to high nature value farmland (both inside and outside IBAs), in line with the Commission's strategic guidelines on the use of Axis 2 funding.

Please see Annex \*\* for more details of important farmland birds and their habitats in Poland.

## 11.3 Threats to existing farmland habitats for Annex 1 and other birds in Poland

The large areas of traditional farmland habitats and extensively managed grasslands, and the important bird populations they support, are threatened by intensification on the one hand and

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<sup>87</sup> RDP 2005

<sup>88</sup> The European Court of Justice (Basse Corbière Judgement C374/98) has concluded that unclassified SPAs, pending their formal classification, are subject to the stricter protection regime defined in the first sentence of Article 4 (4) of the Birds Directive '**Member States shall take appropriate steps to avoid pollution or deterioration of habitats or any disturbances affecting the birds, in so far as these would be significant having regard to the objectives of this Article**' (our emphasis).

abandonment on the other, as Polish farmers take the opportunities offered by EU membership to increasing productivity and efficiency (particularly on better quality soils) - or to abandon farming altogether and work in the towns and cities. In the three years from 2000-03 the Farmland Bird Index for Poland declined by 13%.

The main threats to existing farmland bird habitats are:

- land consolidation (reducing the mosaic of grass and arable crops and the semi-natural habitats between them)
- intensification of production (drainage, increased use of fertilisers and pesticides, earlier mowing, fewer crops in the rotation, and removal of small landscape features leading to loss of shelter, food and nesting sites)
- conversion of grassland to arable land
- afforestation
- land abandonment leading to loss of open farmland habitats through successional development of scrub.

Declines in bird populations will follow agricultural intensification and the Polish Common Birds Monitoring Scheme has shown that densities of common farmland birds such as the Skylark and Northern Lapwing are much bigger in the eastern, less-intensively farmed part of Poland than in the western, more-intensive part. If birds like these decline in Poland it will mean losing the source of birds for potential future recolonisation of Western European farmland.

#### 11.4 Agri-environment measures for farmland birds 2007-13

Poland had no national agri-environment schemes before accession but prepared a wide range of agri-environment measures for the 2004-06 programme, drawing on expert advice and the experience of a PHARE pilot project in two voivodships. Shortly before the 2004-06 Plan was finalised the proposed agri-environment programme was severely curtailed - agri-environment measures were allocated only 7% of the total EAGGF funding and the original fifteen agri-environment packages were reduced to seven. Only one package (two measures for extensive grassland), was targeted at habitat management for biodiversity and this was confined to priority areas, excluding all or part of 24 Important Bird Areas.

Clearly the scope of the 2004-06 schemes was inadequate to protect important bird habitats from the threats outlined above (and there were major problems with delivery, discussed below), but before considering the 2007-13 proposals it is relevant to look at some of the problems encountered with the design of the 2004-06 schemes, many of which will be included (with revisions) in the next programme.

##### *Schemes targeted at Annex 1 farmland birds*

There are **two grassland measures** in the current programme which have the potential to benefit many of the target Annex 1 farmland species including: Aquatic Warbler, which depends on the continuation of mowing in agriculturally poor wet meadows with particular plant communities; Corncrake and Great Snipe, which benefit from late mowing, and other waders are favoured by late mowing and/or extensive grazing of wet pastures, including Ruff and Northern Lapwing (more than 10% of the EU25 population is found in Poland) and other farmland birds<sup>89</sup>. The two measures are:

A well-designed zonal measure for **extensive meadows**, which is popular with farmers who have no grazing animals, but is not attractive to livestock farmers. In the 2004-06 programme it was available on improved and unimproved grasslands in limited priority areas that exclude 24 IBAs with significant coverage of grasslands<sup>90</sup>.

<sup>89</sup> such as Roller, *Aquila clanga*, *Aquila pomarina*, *Circus pygargus*, *Athene noctua* (decreasing) and other raptors using of these grasslands as hunting grounds

<sup>90</sup> The following IBAs have significant coverage of grasslands but are located wholly or partly outside priority zones: PL001, PL002, PL004, PL007, PL012, PL027, PL028, PL032, PL034, PL045, PL054, PL063, PL071, PL075, PL079, PL081, PL090, PL107, PL112, PL113, PL125, PL116, PL114, PL115 see Annex \*\* for more information about these IBAs. Source OTOP questionnaire.

The measure prohibits agricultural improvement of the grasslands, and limits fertiliser use and stocking densities and grazing regimes; mowing must be bird friendly (from the middle outwards, using shoeing devices) and mowing dates are prescribed - after 1 July for both single-cut and twice-cut meadows, and after 15 August for moist litter meadows. Payment rates vary, depending on whether the meadow is cut once or twice and by hand or machine. Farmers on Natura 2000 sites are paid an additional 20% above the normal rate.

A zonal measure for **extensive pastures**, which is unpopular with farmers because payment rates are low and there are fewer available livestock than in the past. It applies to the same zones (excluding many IBAs) as the extensive meadows measure and prohibits agricultural improvement of the grasslands, limits fertiliser and herbicide use, specifies stocking densities (all less than 1.0 LU/hectare) and grazing regimes for different grassland types (e.g. on lowland pastures grazing May-October and no sooner than two weeks after flooding, on mountain pastures grazing for 90 days after 20 May, leaving 25% growth ungrazed to be mown and removed in July-August). Payment rates vary with the type and altitude of the grassland.

More than 9,000 farmers (less than 1% of all Polish farmers) had applied for the extensive meadows measure on about 87,000 hectares by April 2006. It is attractive for landowners who have no livestock, often people living away from the village, but it is unpopular with livestock farmers because the late mowing dates result in poor quality hay and/or the need to buy in fodder, particularly in dry years. It is possible that some habitats have been mis-identified and the wrong management implemented, either because advisers lack the technical expertise or because farmers seek to enter land in the higher payment category for twice mown meadows, whether this is appropriate or not. Farm advisers would like to have more flexibility in setting mowing dates to reflect weather conditions and geographical differences - there is a two week phenological difference between NE and SW Poland. In contrast, only 962 farmers had applied for the extensive pastures measure, covering less than 8,000 hectares, by April 2006. It is so much less popular than the extensive meadows option because it is generally not an option for absent owners who cannot keep livestock and the payment rates are not attractive to livestock farmers - some of whom cannot apply for any agri-environment payments at all on the large areas of common grazing on riverside pastures in Eastern Poland, which are important wet grassland habitats.

For 2007-13 these two zonal measures for extensive meadows and pastures will be replaced by two **new measures for extensive meadows and pastures**:

- a zonal measure for 'natural sites', restricted to Natura 2000 and other high priority grasslands where the floristic interest is documented; Natura 2000 sites will continue to receive 120% of the payment rates for other land.
- a widely available horizontal measure for extensive grasslands, both meadows and pastures, with much earlier mowing dates of after 1 June (first mowing) and after 1 July (second mowing). This will have additional options for:
  - protecting the habitats of nesting birds, with a later mowing date of 20 July and higher payment rates; and
  - Aquatic warbler *Acrocephalus paludicola* sites with higher payment rates

The range of payment rates is expected to reflect the conservation interest of the land with the highest rates for Natura 2000 sites and the lowest for the horizontal measure. The earlier mowing dates in the horizontal measure for meadows will make it more attractive to livestock farmers and support extensive grassland management - providing feeding areas for many species. But realising the potential benefits for key Annex 1 species, including Corncrake, will depend on advisers having the skills to target these options for late mowing and Aquatic warbler nest sites at the right land. It will also be important for these options to be made available to owners without livestock, for whom they are much more attractive.

### *Other agri-environment schemes of more limited benefit to birds*

Uptake data for the current programme shows that more than 70% of an already restricted agri-environment budget has been spent on water and soil protection measures and organic farming. Both packages are easy for farmers to implement, have good payment rates and the potential to bring economic benefits to the farm (improvement in soil quality and access to organic markets). They are widely supported by farmers' organisations and likely to take a significant share of the 2007-13 budget too. Some general benefits to birds could be expected from these two packages - for example in preventing abandonment, providing winter cover on arable land, and limiting the use of pesticides - but the failure to realise some of these limited benefits illustrate some of the wider problems in delivering agri-environment measures in Poland:

The **organic farming** measure applies to arable land, mixed traditional farmland, improved dry grassland and orchards. The farmer has to prepare an agri-environmental farm plan, mapped at 1:5000, showing permanent grassland and all landscape elements important for nature conservation (e.g. wetlands, hedgerows, field boundaries, peat bogs, etc.). These natural areas and features must not be destroyed - exceptions to this rule are granted only in justified cases and on condition that a minimum 3% of natural vegetation or features is retained. The measure has been attractive to subsistence and semi-subsistence farmers who needed to make little change to their management. Many farmers, including some who live in cities, do not produce organic food but manage the land for the agri-environment payments. Popular options have been organic grassland (without any requirement for animal production) and organic orchards. The area of organic orchards has increased significantly in response to agri-environment payments which were over-generous for some orchard types such as sloe, walnuts, wild rose and chokeberry (*Aronia*) which are easy to grow under organic conditions (compared to apples, cherries, black currants and raspberries which are more likely to have serious plant protection problems and yield losses). Spot control visits by the paying agency revealed that a significant percentage of new organic orchards had been established on permanent grasslands (although the scheme prohibits this) and had damaged these semi-natural habitats. It is also likely that the requirement to maintain small natural landscape features has not been effective because farmers did not record them on the agri-environment farm maps. Amendments have been proposed to deal with these unwanted effects and improve the environmental benefits, but it is not clear if these have all been included in the latest draft for 2007-13, for example:

- a new option for low-expenditure organic orchards with lower payment rates to limit 'only for subsidies' creation of new orchards
- replacing the current requirement to map and retain landscape features with a new, separate 'small natural landscape features' measure with payment rates related to the area or number of features

A **winter cover** measure targeted at preventing soil erosion and protecting water quality is available on both arable farms and mixed traditional farmland. It has two options, undersowing grass in another crop and maintaining it throughout the winter (on a different field in each of the 5 years) or sowing an appropriate green crop (mustard, serradella, phacelia, vetch and rye or rye alone) before the end of September, without using additional fertilisers, so that at least one third of the farm's arable land has plant cover during the winter. In both cases the green cover must be ploughed in after the beginning of March. This is the most popular agri-environment measure, particularly for medium to large cereal farms, because it improves soil quality, does not require major changes in current practice and payments are reasonable. A total of almost half a million hectares and more than 32,000 farmers have taken up this measure. It will continue in 2007-13 but with payments differentiated by the size of the area sown, which should reduce the total cost of the measure. Winter crops are potentially good feeding habitat for birds such as wintering Northern Harrier and small grain-feeders.

A measure for **grass buffer strips on arable land**, aimed at reducing surface water pollution, controlling erosion and improving biodiversity, had far greater potential to benefit birds - but in practice very little has been achieved because the payment rates are too low, and by April 2006 less than 330km of buffer strips had been established, on only 81 farms, mainly large farms with a dense network of ditches or hobby farms. The measure requires the establishment of permanent grass strips 2m or 5m wide and at least 50m long, alongside watercourses or wetland habitats, or used to subdivide large fields, and has considerable potential to provide nesting grounds for *Emberiza hortulana*, *Perdix perdix* *Coturnix coturnix* (more than 10% of the EU25 population is in Poland) and other farmland species. The grass must be managed without pesticides or fertilisers, mown once a year (after 15 July) and fenced off from grazing livestock; for field boundary strips, the grass mix includes nectar producing herbs which should be of benefit to insect eating birds.

The measure will continue in 2007-13, with separate sub-measures for buffer strips and field boundaries and payment rates have been increased (e.g. for 5 metre wide strips on better quality land it is increased from €20 to €25-28 per 100 running metre).

#### *New schemes with potential benefits for birds*

Two other new measures for the 2007-13 programme, which would have been of particular value to farmland birds, do not appear to have been included in the most recent proposals. These are:

- support for field mosaics, targeted at the high nature value traditional farmland systems, with requirements to maintain small field size and field margins, use a 5 year crop rotation with at least 3 crops each year, protect semi-natural habitats and small landscape features; and
- non-productive investment support to improve habitat management for biodiversity including the construction of small dams to provide wet areas for the environment benefit of White Stork and other birds of wet grassland.

#### *Discussion of 2007-13 proposals*

In the absence of any experience of pilot projects for most of the 2004-06 measures, and a reduced budget, it is not surprising that uptake of two of the three measures likely to be of significant benefit to Annex 1 birds has been so severely limited by inadequate payment rates or management requirements that are difficult for farmers to comply with. These problems were made worse by lack of skilled advisors (see below).

The proposed changes to the programme for 2007-13 address some of these issues and should improve uptake if payment rates are set at a level to be attractive to farmers and the measures for extensive grassland and buffer strips are given adequate targets and budget allocations. But the benefit of the grassland scheme for some threatened Annex 1 birds depends on targeting the two special measures at appropriate sites, and it is difficult to envisage who will provide this advice to applicants until major improvements have been made to the advisory service. If these improvements are made, the grassland measure could usefully be supplemented by targeting non-productive investment in small dams at grasslands where Corncrake White Stork and other birds would benefit.

If the delivery system was working effectively there is a strong argument for promoting the measure for field mosaics as part of an integrated package targeted at protecting and developing the biodiversity value of the remaining mixed traditional farming areas, and measure at grasslands. Given the problems of agri-environment delivery in Poland it might be better to take a more cautious approach initially and to pilot these new measures in areas where they are most needed and where fully trained advisors can assist with delivery, perhaps in nature and landscape protection zones where IBAs have not been designated as Natura 2000.

The proposed programme for 2007-13, shown in Table \*\* below, still has a very strong emphasis on agri-environment measures not targeted at biodiversity. Without a significant transfer of both funding and delivery effort into the schemes for permanent pastures and high

nature value grasslands and the introduction of a coherent package of measure for mixed traditional farmland it is difficult to see how Poland can safeguard the habitats of large populations of important Annex 1 farmland birds.

**Table \*\* Proposed agri-environment programme for 2007-13**

<b>Agri-environment packages</b>	<b>Options</b>
<b>Sustainable farming</b>	one option, entry level
<b>Organic farming</b>	12 different options covering arable, grassland, vegetable crops, herbs and orchards
<b>Low-input (extensively used) permanent pastures</b>	Two options for: <ul style="list-style-type: none"> <li>• low-input management of grasslands and pastures</li> <li>• bird breeding site protection</li> </ul>
<b>High value nature habitats protection</b>	Eight options for different types of semi-natural grasslands and fens
<b>Local crop plant varieties</b>	Four options for local crops and orchards
<b>Local breeds of farm animals</b>	Four options for cattle, sheep, horse and pigs
<b>Soil and water protection</b>	Three options for: <ul style="list-style-type: none"> <li>• post-harvest undersowing</li> <li>• winter catch-crop</li> <li>• stubble catch-crop</li> </ul>
<b>Buffer zones</b>	Four options for 2m and 5m wide buffer strips and boundary strips

### **11.5 Negative impacts of Axis 2 measures on farmland birds**

#### *Afforestation of farmland*

Without environmental criteria to assess applications there is a risk that use of Axis 2 funding for afforestation could destroy grassland habitats important for birds.

### **11.6 Negative impacts of Axis 1 measures farmland birds**

#### *Farm investment*

Lack of sufficient safeguards for Annex 1 birds and failures to use environmental impact assessment, or to refer to spatial management plans when assessing farm investment applications, could threaten grassland habitats. Giving priority in Natura 2000 areas to Axis 1 applications for investments other than for improving environment quality could result in intensification of agriculture on high nature value farmland.

#### *Early retirement and land consolidation*

Together these poses a real threat to the important small-scale habitats for birds found in the mixed traditional farming areas, as younger farmers intensify production and consolidate parcels of land in an effort to improve income and reduce labour costs. One way of limiting the damaging effects on biodiversity might be to offer a integrated package of support for traditional farming areas using measures from all three Axes of EAFRD and to also give incoming farmers preferential access to agri-environment schemes for landscape conservation and habitat management.

### **11.7 National Strategy and budget allocations for 2007-13**

The objectives of the National Strategy for 2007-13 include references to supporting valuable habitats in agricultural use and to SPAs in general, but it is not clear what funding and priority

will be given to the conservation management of the 1.5 million ha of farmland habitats in IBAs, which are critical to achieving positive conservation status for so many Annex 1 birds. The delay in implementation of Directives 79/409 and 92/43 in Poland means that many Important Bird Areas will not be legally protected from agricultural change or be eligible for Natura 2000 compensation payments in 2007. For the immediate future targeted agri-environment measures will be a more effective means of managing Natura 2000 sites which are without adequate legal restrictions, and for IBAs which are not designated as SPAs.

The proposed allocation of 2007-13 EAFRD funding is

Axis 1	46%		
<b>Axis 2</b>	<b>35%</b>	and within Axis 2 .....	
Axis 3	17%		

measure% of Axis 2	
LFA_	42_
agri-	33_
Natura 2000 and WFD	10_
afforestation of farmland_	9_

Respondents to the survey were concerned that:

- Axis 2 has been allocated a relatively small proportion of the overall; budget
- a high proportion of the Axis 2 budget is again allocated to LFA payments, without adequate safeguards for biodiversity
- almost half the agri-environment budget is already committed to farmers who entered schemes in 2004-06
- if the government decides to meet the expectations of individual farmers and farmers' organisations, it is very likely that "shallow" measures of limited biodiversity value will continue to take a major part of the remaining agri-environment budget, at the expense of measures targeted at high nature value farmland

### 11.8 Agri-environment and Good Agricultural and Environmental Condition

If properly defined and enforced Good Agricultural and Environmental Condition can provide safeguards for the non-farmed areas and small landscape features which are so important for farmland birds, and can protect semi-natural habitats from damage or destruction, leaving agri-environment schemes to pay for their management, restoration and improvement.

Biodiversity experts point out that there are problems with the current definition of Good Agricultural and Environmental Condition in Poland:

- current Good Agricultural and Environmental Condition requirements are in conflict with some agri-environment management requirements, but this could be at least partly resolved by:
  - changing the date by which mowing must be completed to 15 August for meadows and pastures and allowing exemptions for land in protected areas, IBAs and higher level agri-environment schemes;
  - prohibiting weed control by herbicides on fallow land.
  - leaving the protection of small landscape features and areas of semi-natural habitat as a Good Agricultural and Environmental Condition requirement but allowing farmers to claim area payments on the land these features occupy (as permitted by the Implementing Regulation for direct payments<sup>91</sup>) and, at the same time, offering farmers an incentive to retain them - for example by giving additional points in scoring agri-environment applications, and making non-productive investment support available for the restoration or

<sup>91</sup> Regulation 796/2004 Article 30.2 and 30.3

replacement of key features. This approach has been used for the entry-level agri-environment scheme in England<sup>92</sup>.

- the current legal requirement to maintain permanent grassland, which is a condition of LFA and agri-environment payments, should be transferred to Good Agricultural and Environmental Condition and properly enforced; the cadastre (land registers) are still being updated, and farmers are, in some cases, converting permanent pastures into arable land without any penalties (e.g. where the plot is registered as arable land, but has been used for last 15 years as permanent grassland). Permanent unimproved grassland is important to Annex 1 birds for nesting and food supplies.

## 11.9 Delivery and evaluation of agri-environment measures

### *Delivery*

Poland has about 1.5 million farmers and almost 10% of farmland is classified as habitats important for birds. Effective delivery of an agri-environment programme on this scale requires a major commitment of funding and expertise. The Polish Paying Agency (ARMA) has had major problems implementing agri-environment schemes and other measures in 2004 – 2006 causing delays in applications, making payments and other complications. These difficulties discourage farmers and were one of the reasons for the low number of applications - other reasons were the limitation of some measures to priority zones, low payment rates for some measures, complicated conditions, and insufficient advice, promotion and training for farmers. As a result it is forecast that by April 2007 it Poland will have spent less than 35% of the agri-environment budget for 2004 - 06 and only about 4% of Polish farmers will have agri-environment contracts.

### *Farm advisory services*

The most significant limiting factor for agri-environment uptake in Poland has been the availability and activity of advisers who lack adequate knowledge and expertise in biodiversity management. To save costs new advisers are trained 'in-house' by existing advisers, compounding the problem of lack of environmental expertise and negative attitudes to agri-environment schemes. Restructuring of the advisory services, introduced in January 2005, may weaken the link between local and national advisory centres and affect the quality of advice. There is also concern that new powers to charge for agri-environment advice will, if implemented, disadvantage poorer farmers who are more likely to have high nature value farmland and should be among the key targets for agri-environment schemes<sup>93</sup>.

Successful implementation of new agri-environment schemes and other environmental measures will be impossible without sufficient funding to:

- employ properly trained agri-environmental advisers, supported by experts; and to
- train all advisers and inspectors in the management requirements of the new schemes;
- provide information campaigns for farmers and give them assistance with preparing applications.

One way of providing additional skilled resources in time for the 2007-13 programme might be to use Axis 1 measures for "vocational training and information actions" (Article 21) and "use of advisory service and by farmers and forest holders" (Article 24) to finance specialist agri-environment advisory services provided by small private firms or NGOs, and cover the cost to farmers of using these services.

### *Evaluation*

No information was available on proposed indicators for agri-environment measures but given the large populations of Annex 1 farmland birds threatened by decline, it is important

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<sup>92</sup> Entry Level Stewardship, for details see: <http://www.defra.gov.uk/erdp/schemes/els/default.htm>

<sup>93</sup> ref Elco

that the impact of key agri-environment schemes on birds and their habitats is properly evaluated and used as a means of improving and targeting future agri-environment schemes.

## 12 Slovakia

**Important note on data:**

Unless other sources are cited the information in this chapter is from a questionnaire survey of local experts in spring/summer 2006, when the proposals for the 2007-13 programme were not finalised. The following information was the best available at the time but may no longer be up-to-date.

**Key points for Slovakia 2007-13**

*Are conservation priorities for farmland birds adequately addressed in the objectives, targeting and funding of the 2007-13 Rural Development Plan?*

Slovakia has major populations of several Annex 1 farmland birds and 25% of the territory is designated as SPA. One third of the farmland in IBAs is already used intensively and half the IBAs are threatened by intensification

The proposed allocation of more than 60% of the EAFRD budget to Axis 2 should help to secure future agri-environment uptake, provided adequate payment rates are set and expert advice followed on management requirements.

*Is the design of agri-environment schemes and measures fit for the purpose of safeguarding and managing farmland habitats for the conservation of farmland birds?*

Under the current 2004-2006 programme only one of 10 agri-environment measures is aimed directly at the protection of biodiversity (Habitat protection of natural and semi-natural permanent grasslands). This scheme was well designed and well received by farmers and although not specifically aimed at the protection of birds, some benefits for meadow birds are expected. But there were no specific measures directly targeting the needs of farmland bird species.

The proposals for 2007-13 include improvements to this measure and three important new horizontal measures (one for non-productive investments) and a Natura 2000 measure aimed specifically at Annex 1 farmland birds. Care will be needed to ensure that MoE proposals for these new measures are not modified by MoA to the extent that their benefit to birds is reduced.

*What are the barriers to delivering appropriate, targeted and effective agri-environment measures for the conservation of farmland birds?*

Because of fragmentation of ownership of land and ongoing restructuring of plots of land, schemes for planting trees and shrubs in intensive lowland farmland have failed.

Lack of environmental expertise among advisers and paying agency staff has meant that farmers are not well-informed about bird conservation and there have been problems with control of biodiversity measures.

*What is the effect of other CAP policies on the delivery of effective agri-environment schemes for the conservation of farmland birds?*

Existing 'special' LFA payments are tied to basic general management requirements, do not reflect the needs of Natura 2000 sites and have probably been of little benefit to birds. They may be replaced by targeted agri-environment schemes in 2007-13.

The current definition of Good Agricultural and Environmental Condition offers no protection for landscape features and has mowing requirements that are too early for nesting birds.

## 12.1 Agriculture in Slovakia

Farmland covers 50% of the territory, forestry 40%. Of the farmland almost 60% is arable and the quantity of cereals, oil-producing plants and vegetables is increasing and the arable area covered by fodder crops, potatoes, maize and legumes is decreasing. Permanent grassland is also increasing whilst the percentage of hops, vineyards and orchards is decreasing. The size of an average farm is 300 ha with cooperative enterprises in a dominant position.<sup>94</sup>

## 12.2 Farmland birds in Slovakia

Slovakia's farmland accounts for only 1% of the EU25 total but it provides breeding and feeding grounds for major populations of several Annex 1 farmland birds including Imperial Eagle (38% of the EU25 population), Saker Falcon and Lesser Spotted Eagle (13% and 10% respectively), Corncrake, Lesser Grey Shrike, Red-footed Falcon and smaller numbers of other important species<sup>95</sup>

There are 40 IBAs in Slovakia, of which 38 (covering more than 25 % of the Slovak territory) have been submitted as SPAs. Farmland (365120 ha) covers 30% of the total IBA area and more than 50% of twelve IBAs. Almost one third of the farmland is used intensively and half of the IBAs are threatened by intensive agriculture.

Please see Annex \*\* for more details of important farmland birds and their habitats in Slovakia.

## 12.3 Threats to existing farmland habitats for Annex 1 and other birds in Slovakia

### **Arable land**

Now farmed intensively by tenants, threats include:

- large scale monocultures, intensive use of fertilisers and pesticides, intensive mechanisation (ploughing, sowing, mowing, harvesting);
- removal of scattered trees and shrub vegetation, land drainage or inappropriate irrigation;
- unsuitable mowing techniques (mowing before the 1st August in core areas or before 15 July outside core areas, mowing from the both sides to the centre of the parcel at high speed and mowing by several mechanized mowers at the same place and the same time);
- other significant threats include changes in traditional farming methods, land abandonment and burning of old growth.

### ***Unimproved permanent dry grassland and wet grassland***

Now managed extensively by tenants or owners for subsistence or shared farming; it is used for seasonal grazing by cattle and sheep, and for hay production. The main threats are:

- land abandonment and overgrowth with scrub;
- burning of old growth;
- unsuitable mowing techniques (as for arable land above);
- intensive grazing with no limited on livestock density, and trampling
- cutting of solitary old, dying and dead trees, bushes, hedgerows, windbreaks, tree lines, small woodlands and other natural vegetation on farmland;
- on wet grassland there is a threat of future drainage

### ***Mixed traditional farming***

Now extensively farmed by owners and tenants, the threats are similar to those for grassland (above) plus future intensification

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<sup>94</sup> Country profiles of Rural Development Plans at [http://ec.europa.eu/agriculture/rur/countries/index\\_en.htm](http://ec.europa.eu/agriculture/rur/countries/index_en.htm)

<sup>95</sup> White stork, Great bustard, Purple heron, Squacco heron, Pygmy Cormorant, Roller, Stone curlew, Montagu's Harrier and other farmland birds.

## 12.4 Opportunities to create new habitats for farmland birds

In addition to the need to address the threats to existing Annex 1 bird habitats outlined above, there is a significant case for the creation of new habitats for farmland birds generally. The following table identifies the type of farmland management, the opportunity to improve bird habitats and the birds which would benefit, preferred locations and reasons for creating new habitats.

Farm type	Opportunity to create habitats or adopt bird-friendly management practices	This would improve breeding or feeding areas for:
Arable land in SW and E Slovakia	Creation of grass strips.	<i>Porzana porzana, Lanius collurio, Anthus campestris, Lullula arborea, Alauda arvensis, Coturnix coturnix, Emberiza citronella, Falco tinnunculus, Falco vespertinus, Motacilla flava, Miliaria calandra, Passer montanus, Perdix perdix, Saxicola rubetra, Sylvia communis, Streptopelia turtur</i>
Intensive arable areas of S Slovakia)	Maintenance of small landscape features - solitary old, dying and dead trees, bushes, hedgerows, windbreaks, tree lines, small woodlands, ditches and other natural vegetation on farmland	<i>Aquila heliaca, Falco cherrug, Milvus milvus, Coracias garrulus, Falco vespertinus, Lanius minor, Falco subbuteo, Asio otus, Buteo buteo, Falco tinnunculus Passer domesticus</i>
Extensively farmed permanent grasslands throughout Slovakia	Abandonment and overgrowth of scrub	<i>Crex crex, Aquila pomarina, Aquila chrysaetos, Milvus milvus, Lanius collurio, Sylvia nisoria, Lanius excubitor, Anthus pratensis, Miliaria calandra, Saxicola rubetra,</i>
Traditional extensively managed orchards and vineyards in S Slovakia	Support to prevent further decrease in area of high nature value perennial crops	<i>Otus scops, Lanius minor</i>
Intensively managed lowlands	There are few trees and shrubs and these be very important for birds. Establishing new trees and shrubs cannot be done without land reform, which is very slow and complicated.	

## 12.5 Agri-environment measures for farmland birds 2007-13

There was some resistance from the MoA to including bird conservation measures in the 2004-06 programme and out of 10 schemes under the current programme, only one is aimed directly at the protection of biodiversity, namely 'natural and semi-natural grasslands'. This scheme for extensive grassland management was well designed and well received by farmers, and although not specifically aimed at the protection of birds, some benefits for meadow birds are expected. It will be improved for 2007-13 by increasing the number of grassland types from four to seven. Some farmers have had problems because they do not have enough livestock or appropriate light weight mowing machinery.

Another existing scheme, likely to be continued in the next period, is for conversion of arable land to grassland and is potentially valuable to birds like White Stork when it is used on flooded areas. There has been a problem with seeds mixtures for this measure - semi-natural grasslands mixtures were only available for pilot projects and farmers use commercial mixtures instead, which are not appropriate. The Institute of Botany of the Slovak Academy of

Sciences should be the certification authority for this seed but it lacked the capacity to take on the work and the question of finding an authorisation institution for 2007-13 has not yet been resolved.

Two new schemes aimed specifically at Annex 1 birds are proposed for 2007-13, one a late mowing scheme for Corncrake on permanent grasslands, which is likely to be popular with farmers, because they can combine it with the measure for habitat protection of natural and semi-natural permanent grasslands (above). The other is a targeted arable scheme with two options, one for Imperial Eagle, Saker Falcon, Red-footed Falcon, Black Kite and Red Kite, the other for Great Bustard. In the arable scheme the nest protection requirements are demanding for the farmers and the payment rates are unlikely to be attractive to intensive lowland farmers.

In addition to this non-productive investments will be offered for the installation of artificial nests, nest boxes and perching poles which should benefit Falcons, Harriers, Roller and White Stork.

Care will be needed to ensure that MoE proposals for these new measures are not modified by MoA to the extent that their benefit to birds is reduced.

## **12.6 Natura 2000 compensation payments**

### *Legal restrictions*

Legal restrictions are in place to protect nests of Annex 1 birds but there are concerns that permanent pasture and landscape features are not adequately protected in high nature value areas (including NATURA 2000 sites) in Slovakia.

### *Natura 2000 payments*

LFA payments for environmental restrictions were available in four SPAs in the 2004-06 programme but were not targeted at NATURA 2000 site management and will have been of little benefit to birds. The scheme simply applied prescriptions equivalent to basic agri-environment schemes and basic GFP restrictions, neither of which reflect the needs of NATURA 2000 sites. As a result, farmers received LFA support without any obligation to respect rules concerning species protection (e.g. limits on management of non-cropped land during the breeding season, spraying of chemicals on non-productive land or stubble burning). Another problem has been inadequate coordination on the part of the Ministry of Environment and the delay in designating SPAs, which has meant that many farmers have not received payments.

Two Natura 2000 measures for SPAs have been prepared but it is not clear if these will be used because of the high cost to the budget and the problems of applying general conditions to very different sites - instead farmers in SPAs may be given better access to agri-environment schemes.

## **12.7 National Strategy and budget allocations for 2007-13**

SAPARD agri-environment measures programme were implemented from the beginning of 2004, only one year before the start of RDP, and there was not enough time to evaluate them and use the results in preparing the RDP. (Some preliminary evaluation was done by NGOs DAPHNE and BirdLife Slovakia, but MoA did not take the results of the evaluation into account).

The Slovakia Rural Development Strategy for 2007-2013 makes general reference to Natura 2000 and biodiversity, and the proposed allocation of 2007-13 EAFRD funding between Axes (at the time data was collected for this report) was:

Axis 1 20%  
Axis 2 62%

Axis 3 14%

In the current programme budgets were not pre-allocated to particular measures. and in practice the allocation was determined by the level of farmers' interest.

### **12.8 Agri-environment and Good Agricultural and Environmental Condition**

If properly defined and enforced Good Agricultural and Environmental Condition can safeguard the non-farmed areas and small landscape features which are so important for farmland birds and protect semi-natural habitats from damage or destruction, leaving agri-environment schemes to pay for their management, restoration and improvement.

Current GFP rules include requirements concerning fertilisers, plant protection products, soil protection and animal fodder, which establishes environmental standards aimed at the protection of water, soil and air quality. However, these rules do not contain any standards benefiting biodiversity.

Biodiversity experts point out that current Good Agricultural and Environmental Condition covers the basic care of agricultural land by destroying weeds and protecting land from invasion by trees and other vegetation, but the current definition has many of the same deficiencies as GFP:

- mowing is required at least once per year, before 15 July, which is too early for nesting birds;
- there are no GAEC standards for minimum stocking rates and/or appropriate regimes or the retention of landscape features or to protect permanent pasture from conversion to arable land - these would all benefit birds.

### **12.9 Delivery and evaluation of agri-environment measures**

Despite the compulsory 20 hour agri-environment training course farmers have limited awareness of the needs of bird conservation. The government advisory service is not very well established, most of the accredited advisors have very limited knowledge of nature conservation issues and NGOs do a lot of unofficial unpaid advisory work. There are similar problems with paying agency staff, and control of biodiversity measures is a serious problem, which will have to be solved for 2007-13. (There is proposal to involve the State Nature Conservancy in the controlling process.)

A key issue for 2007-13 will be improving the biodiversity skills of advisers and control staff and using the information and training for farmers to make them more aware of the management needs of birds.

## 13 Slovenia

**Important note on data:**

Unless other sources are cited the information in this chapter is from a questionnaire survey of local experts in spring/summer 2006, when the proposals for the 2007-13 programme were not finalised. The following information was the best available at the time but may no longer be up-to-date.

### Key points for Slovenia 2007-13

Small farm size and the continuation of mixed traditional farming in the predominantly mountainous landscape support a variety of farmland habitats. Almost one quarter of the land in Slovenia is designated as SPA, with about 30,000 ha of farmland, including unimproved grassland (wet and dry), mixed traditional farmland, arable and perennial crops.

Slovenia has been delivering a complex agri-environment programme of 21 measures since 2001, with a well-organised administrative and advisory system, including compulsory training for farmers.

About one third of all farmers in Slovenia participate in agri-environment schemes, but both they and their advisers see these schemes as another form of agricultural support rather than a means of buying specific environmental benefits. Schemes with relatively little impact on habitat management are popular - for example integrated crop production and sustainable animal breeding - but other entry level schemes such as organic farming and extensive grassland management would be of much greater benefit to Annex 1 birds.

The few remaining wet grasslands are particularly important for Corncrake, which has declined in recent years as a result of habitat loss in all the core wet grasslands in SPAs. A special grassland habitat conservation scheme for birds has had poor uptake, due to a combination of factors - restrictions on how different agri-environment schemes may be combined, lack of promotion by advisors and unduly restrictive management requirements.

Uptake has also been poor of two other schemes which would have protected important SPA habitats of steep grasslands and traditional grassland orchards.

The National Strategy makes clear that agri-environment schemes are to be the main tool for delivering habitat management in Natura 2000 areas. Reversing the recent declines in important Annex 1 birds such as ... will require some changes to existing schemes and much improved uptake of some of these more demanding schemes if they are to protect important habitats from abandonment or intensification.

The advisory service already plays a key role in shaping farmers' attitudes and influencing uptake of agri-environment schemes and will be an important factor in achieving targets for Natura 2000 habitats and species. Achieving sufficient uptake of the higher level habitat management schemes and helping farmers to implement the management requirements correctly will require extra training in habitat management for these advisers or the establishment of a specialist advisory service for Natura 2000 areas. Paying agency inspectors will also need to be trained in management requirements.

Flexibility in the current rules on conversion of permanent grassland appear to allow destruction of wet grassland habitats without penalty, making it even more important that farmers are encouraged to manage this land for birds rather than convert it to more intensive grassland or arable.

Confusion over the interpretation of IACS rules has led to some farmers destroying small landscape features important for birds, such as isolated bushes and trees.

If appropriate impact indicators are not used to evaluate the 2007-13 programme it will be

impossible to know if Slovenia's substantial investment in agri-environment measures is able to reverse the decline in important Annex 1 bird populations and deliver the government's targeted for Natura 2000 farmland.

### 13.1 Agriculture in Slovenia

About half the territory of Slovenia is agricultural land, predominantly permanent pasture, much of it in hilly or mountainous areas. Slovenian agriculture has retained a small farm structure and prior to independence only more than 90 % of Slovenia's UAA was occupied by small private agricultural holdings and only about 8 % by socially owned holdings, known today as "agricultural enterprises". Individual farms have an average size of about 4.8 ha, agricultural enterprises about 370 ha<sup>96</sup>.

### 13.2 Annex 1 farmland birds in Slovenia

Slovenia's farmland is less than 1% of the EU25 total it provides breeding and feeding grounds for significant populations of six Annex 1 farmland birds targeted by BirdLife for support through agri-environment schemes. Five of these have unfavourable conservation status in Europe - Corncrake (also of global conservation concern), Lesser Grey Shrike, Lesser Spotted Eagle, Night Heron and Roller. This includes the European Roller, Lesser Grey Shrike, Eurasian Scops Owl and Hoopoe.. In contrast, a significant area of dry meadow and pasture can be found at a number of sites, concentrated in the west and southwest of the country. These sites support various specialist species, such as Short-toed Eagle, Woodlark, Ortolan Bunting and Tawny Pipit, although the total area of dry meadows is now decreasing due to encroachment of vegetation.

Please see Annex 3 for more details of important farmland birds and their habitats in Slovenia.

### 13.3 Threats to existing farmland habitats for Annex 1 and other birds in Slovenia

#### *Wet grasslands*

Although the majority of wet meadows have been drained in the past, a small number of areas (the most notable being Ljubljansko ba rje) survived to form a network of sites now used for mowing for fodder or litter and patchily semi-intensive cattle grazing. These areas are home to important numbers of Corncrake and used by other Annex 1 species -White Stork, Spotted Crake Lesser Spotted Eagle - and other farmland birds<sup>97</sup>. Optimum management for birds include low input farming activities, limited use of mineral fertilisers and chemicals and late mowing, with existing drainage channels managed according to nature conservation guidelines, requiring farmers to undertake alternate cleaning (only one side of a channel every second year) also use these grasslands.

Nearly one third of all IBAs in Slovenia have wet grassland that is under continuous threat of:

- conversion of to arable land or intensively managed grasslands
- intensive grazing;
- early mowing;
- encroachment of bushes due to land abandonment.

#### *Unimproved permanent dry grassland*

Dry mountain grasslands are typical of seven SPAs, mostly in Western and Southern Slovenia and are important habitats for Corncrake and for raptors such as Griffon Vulture, Golden Eagle and Short-toed Snake Eagle that require open landscape for hunting and benefit from extensive grassland management (especially grazing by cattle, sheep and

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<sup>96</sup> DG Agri overview

<sup>97</sup> for example, *Coturnix coturnix*, *Sylvia nisoria* and *Lanius collurio*

goats). Many other farmland birds<sup>98</sup> use these grasslands, some of which have already been abandoned, leading to significant loss of habitat, while others are still used for grazing cattle and sheep, and for mowing. The main threat is the abandonment of high mountain farmland and the consequent encroachment of unwanted vegetation on grassland. The optimum management for birds would be extensive grazing with low LU/ha, late mowing where appropriate, and control of encroaching vegetation.

#### *Mixed traditional farming*

Predominantly traditional extensive mixed farmland, vital for the conservation of many threatened farmland species, remains in some rural areas, such as Slovenske gorice, Gori\_ko and Kozjansko. This complex bird habitat is found in nearly half of all IBAs and is used for mixed, small-scale farming, with extensive cattle grazing, mowing, some arable land and perennial crops, including orchards and vineyards, forest edges, hedgerows and solitary bushes or trees. These areas are important for Roller, Lesser Grey Shrike, White Stork and many other birds<sup>99</sup>, which benefit from low input agriculture, especially mixed organic farming in small-scale fields with limited livestock density, phased mowing, traditional perennial and mixed crops, traditional orchards and the maintenance of marginal areas and landscape features. Threats to mixed traditional farmland include:

- creation of monocultures;
- high fertiliser and pesticide inputs;
- conversion of grasslands to arable land;
- reduction in the total area of traditional orchards

#### *Arable*

These habitats are now managed as intensive arable, often within mixed traditional farming systems, but the optimum management for White Stork and other species<sup>100</sup> would be conversion to lower-input arable land, smaller-scale farming, reduction in the total area of arable land and promotion of suitable grassland management. The main threats are:

- creation of monoculture;
- high mineral and organic fertiliser inputs;
- pesticide and other chemical inputs; and
- land consolidation.

### **13.4 Opportunities to create new habitats for farmland birds**

In addition to the need to address the threats to existing Annex 1 bird habitats outlined above, there is a significant case for the creation of new habitats for farmland birds generally. The following table identifies the type of farmland management, the opportunity to improve bird habitats and the birds which would benefit, preferred locations and reasons for creating new habitats.

<b>Farm type</b>	<b>Opportunity to create habitats or adopt bird-friendly management practices</b>	<b>This would improve breeding or feeding areas for:</b>
Grasslands, especially wet grasslands in selected IBAs	Late mowing (after 15 July)	All grassland birds, especially Corncrake and Common Quail
All types	Organic farming provides a good basis	All birds, especially species

<sup>98</sup> for example: *Alectoris graeca*, *Lullula arborea*, *Sylvia nisoria*, *Anthus campestris*, *Emberiza hortulana*, *Falco tinnunculus*, *Coturnix coturnix*, *Tyto alba*, *Upupa epops*, *Alauda arvensis*, *Monticola saxatilis*, *Lanius collurio*, *Carduelis cannabina*, *Miliaria calandra*

<sup>99</sup> *Coracias garrulus*, *Lanius minor*, *Ciconia ciconia*, *Falco tinnunculus*, *Coturnix coturnix*, *Otus scops*, *Upupa epops*, *Picus viridis*, *Jynx torquilla*, *Lullula arborea*, *Hirundo rustica*, *Phoenicurus phoenicurus*, *Lanius collurio*, *Sturnus vulgaris*, *Passer montanus*, *Carduelis cannabina*, *Miliaria calandra*

<sup>100</sup> for example: *Falco tinnunculus*, *Vanellus vanellus*, *Tyto alba*, *Alauda arvensis*, *Galerida cristata*, *Carduelis cannabina*

	for habitat management for all farmland birds, especially on Natura 2000 sites	characteristic for mixed traditional farmland, such as White Stork and large insectivores (e.g. Roller and Lesser Grey Shrike)
All types	Hedgerows and solitary bushes and trees, are present in many wet grasslands but their maintenance is extra work for the farmer. Maintaining such landscape features, covering up to 3 % of the total grassland parcel would be of benefit to birds.	Many birds characteristic of mixed traditional farmland and some grassland birds (e.g. Red-backed Shrike, Barred Warbler and to some extent Corncrake too)
Mixed traditional farmland	Supporting traditional management of the few remaining grassland orchards to prevent their conversion to arable or intensive orchards	Many birds characteristic for mixed traditional farmland, notably Lesser Grey Shrike, Grey-faced Woodpecker, Wryneck, and Common Redstart

### 13.5 Agri-environment measures for farmland birds 2007-13

The existing complex programme of 21 measures was introduced in 2001 and is based on previous experience of developing and implementing agri-environment schemes.

Although the Slovenian agri-environment programme has a section on management of protected areas there is only one measure targeted at grassland management for ground nesting birds, which has had very poor uptake (by 2005 only 10% of the 2006 target uptake of 10,000 ha). This was due partly to an unnecessarily low average stocking rate requirement, which put farmers off, and also lack of promotion of the scheme. This scheme for **special grassland habitat conservation** (III/3 in the 2004-06 programme) could potentially benefit 70-80% of the Slovenian population of Corncrake if it was:

- redesigned as proposed by BirdLife Slovenia (see text box below)
- targeted at the 8,200 ha of core wet grasslands in eight SPAs; and
- actively promoted by advisers trained in high nature value habitat management.

Cattle grazing is important for the maintenance of wet grassland in SPAs but the maximum stocking rate of 1.9 LU per ha for the scheme for **sustainable animal breeding** has led to problems of overstocking on these important habitats because the paying agency<sup>101</sup> is required to calculate a total farm stocking rate based on all the grassland (meadows and pasture) but for these wet lowland grasslands, a much lower limit is essential if this habitat type is to be properly conserved.

There are more general agri-environment measures, available throughout Slovenia, which could be of more benefit to farmland birds if their uptake was promoted, particularly in Natura 2000 areas:

- an entry level measure for **extensive grassland conservation** (II/8 in the 2004-06 programme) which is particularly suitable for farms with no livestock;
- the **organic farming scheme** (I/8 in the 2004-06 programme), is of potential benefit on all Natura 2000 farms (for example because it is more restrictive on pesticides than the popular integrated farming schemes) and could usefully be combined with specialist habitat management schemes, such as that for wet grassland.

There are two special habitat schemes which apply to only small areas of land but support traditional management of scarce habitats important for farmland birds, which otherwise may be lost. These schemes have had low levels of uptake in 2004-06, which could be improved by promoting them more vigorously.

<sup>101</sup> Agency of Republic of Slovenia for Agriculture Markets and Rural Development is the paying agency for EAGGF funds.

- **mowing steep grasslands** at least once a year by hand or using small machines, and removing the grass prevents abandonment and provides habitats for grassland birds (II/2 in the 2004-06 programme);
- maintaining traditional management of **grassland orchards** (II/4 in the 2004-06 programme) protects these semi-natural habitats from conversion to arable land or to intensive orchards.

***Wet grassland management scheme for birds, proposed by DOPPS-BirdLife Slovenia***

**Objective**

Management of extensive wet grasslands for the conservation of birds and other fauna and flora. (Birds expected to benefit include *Crex crex*, *Circus cyaneus*, *Vanellus vanellus*, *Numenius arquata*, *Sylvia nisoria*, *Coturnix coturnix*, *Saxicola rubetra*, *Sylvia communis*, *Locustella naevia*, *Lanius collurio*)

**Eligible areas**

Only applicable to permanent wet extensive grasslands on specific Natura 2000 sites.

**Management**

Conserve extensive wet grasslands and their associated landscape features such as hedgerows, solitary bushes and trees. Management to cover;

- Basic livestock loading on farm = 0,0 – 1,9 LU/ha
- No pasturing allowed on grassland plots that are subject to this scheme (only for litter or other alternative use)
- At least one mowing every year including hay gathering (hay should not be left on the meadows)
- The first mowing should not be performed before 1<sup>st</sup> August
- Bird and other fauna species friendly type of mowing should be applied (from the side of the meadow to the centre) only on grasslands plots that exceed a 0,3 ha size
- Hedgerows and other marginal elements should be maintained and managed every second year
- Solitary bushes and trees of a maximum 5,0 – 15,0 metres width should be left on grasslands (the total coverage of elements should not exceed the 3% of a total grassland plot size)
- No fertilizers and other chemicals are allowed

Other management recommendations

- Application of traditional mower machine
- Low speed mowing on a minimum 10 cm up from the ground
- 3,0 – 5,0 metres set aside grassland strips on grasslands plots that exceed the 5,0 ha size

Compensation per hectare calculated as income foregone and additional costs related to specific agriculture practices applied mostly to low input agriculture on extensive wet grasslands.

**Proposed indicators**

Control indicators: area of all permanent grasslands inside Natura 2000 sites under this scheme (in hectares); and area of marginal and other landscape elements (as percentage).

- Long term impact indicators: population of indicator bird species (Corncrake) on wet extensive grasslands; population of indicator flora species; and extent of traditional landscape features.

### **13.6 National Strategy for 2007-13**

The Slovenian Rural Development Strategy for 2007-2013 makes it clear that agri-environment schemes will be the main tool for achieving Natura 2000 targets, using the existing structure the 2004-06 RDP. BirdLife Slovenia argue that it will be difficult to achieve these targets for declining populations of important Annex 1 farmland birds without more emphasis on high level agri-environment schemes targeted at Natura 2000 areas - only one of the current 21 agri-environment measures is targeted at extensive grassland management for birds and this has had poor levels of uptake.

### **13.7 Agri-environment and Good Agricultural and Environmental Condition**

If properly defined and enforced Good Agricultural and Environmental Condition should safeguard the non-farmed areas and small landscape features which are so important for farmland birds and protect semi-natural habitats from damage or destruction, leaving agri-environment schemes to pay for their management, restoration and improvement.

Since implementation of the IACS system in 2005 agri-environment support has been based on the total area of farmland in use, leading to confusion about small landscape features such as isolated trees and bushes, which some farmers have been encouraged to remove. These are an important habitats for birds which could be protected by suitable Good Agricultural and Environmental Condition requirements and their management encouraged through agri-environment schemes. Biodiversity experts point out that some areas of semi-natural vegetation are excluded from agri-environment schemes because they are more than 25m<sup>2</sup> in size and therefore do not qualify as managed farmland.

The protection of permanent grasslands from conversion is determined nationally with an overall 8% loss permitted before state intervention is required - it appears that this flexibility could put at risk all the wet grasslands in Natura core areas.

### **13.8 Delivery and evaluation of agri-environment measures**

#### *Attitudes and training of farmers and advisers*

About one third of all farmers in Slovenia participate in agri-environment schemes but most farmers are more interested in the additional financial support than the objectives of environmental management.. If agri-environment measures are to succeed in delivering government targets on the 29883 ha of farmland in Natura 2000 sites it will be necessary to give significantly more emphasis to high nature value habitat management in:

- the information and promotional material provided for farmers
- training farm advisers
- the 15 hours of training farmers must undertake during the 5 years of their agri-environment contract

The potential effectiveness of such a change of emphasis is illustrated by the 300% increase in uptake of the special grassland habitat conservation scheme in 2006 after it was promoted to farmers (in all SPA core areas for Corncrake) by BirdLife Slovenia.

A recent report on evaluation of agri-environment measures in Slovenia recommended that farmers' training should stress the environmental aspects of agri-environment measures as well as the financial aspects. This study also recommended that more emphasis should be given to on-the-spot inspections and staff carrying out these inspections should be better trained so that they could make independent decisions.

#### *Evaluation*

No information was available on proposals to evaluate the impact of agri-environment measures in the 2007-13 programme, but only uptake and output indicators have been used to evaluate agri-environment measures in the 2004-06 programme (for example area of land

under agri-environment management, use of fertilisers and chemicals, production of fodder from grasslands). Monitoring data compiled by DOPPS-BirdLife Slovenia shows that numbers of corncrake have declined in recent years due to a loss of suitable habitat across all the core wet grasslands of SPAs, suggesting that agri-environment schemes are too general and often targeted at the wrong areas<sup>102</sup>.

If appropriate impact indicators are not used to evaluate the 2007-13 programme it will be impossible to know if Slovenia's substantial investment in agri-environment measures is able to reverse the decline in important Annex 1 bird populations and deliver the government's targeted for Natura 2000 farmland.

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<sup>102</sup> DOPPS BirdLife Slovenia (2005) *Integrating Natura 2000 Requirements into the National Rural Development Programme 2007 – 2013 for Republic of Slovenia* Final Version 1.2. Ljubljana.

## 14 Conclusions and recommendations

Several Member States have made remarkable progress in developing and piloting agri-environment schemes targeted at birds given the timescale and the lack of institutional capacity to deliver biodiversity management. Similarly SPA designation in many (but not all) of the New Member States has been completed very quickly, giving legal protection to thousands of hectares of farmland designated as IBAs. Despite these efforts in preparing effective agri-environment schemes for birds and other biodiversity priorities this study has shown that many difficulties have hindered their effective implementation in 2004-06. Because of the proportion of EU25 populations they hold, conservation of farmland birds in the New Member States will be critical to achieving EU objectives on Natura 2000.

In many Member States the majority of the current agri-environment budget has been allocated to 'shallow' schemes of relatively little benefit to birds. A much stronger link will be required in 2007-13 between the budget allocations to agri-environment schemes and the expected impact on bird populations and biodiversity.

- **budget allocations between Axes and within Axis 2, and area uptake targets for individual agri-environment schemes should more closely reflect the biodiversity value of agri-environment schemes, the total area of existing high nature value bird habitats in need of management and the population status of key Annex 1 birds.**
- **bird populations should be used as an Axis 2 indicator and, to guide the design and delivery of agri-environment schemes, Member States should be required to set quantified targets for population change of key bird species (including intermediate targets between 2007 and 2013) at different geographical scales (farm, high nature value area, Member State).**

Natura 2000 payments will not be available until legal restrictions are in place, and will not be able to cover the positive management needed in many SPAs, such as grazing.

- **agri-environment schemes targeted at birds will continue to be needed within SPAs and other high nature value areas to achieve the positive management needed if Member States are to meet their Natura 2000 obligations.**

Less Favoured Area payments will continue to take a large share of Axis 2 budgets in many Member States.

- **LFA payments and their attached conditions should be structured in a way that supports and encourages high nature value management for the benefit of birds and should be available to any land occupier who can meet these conditions, including tenants, owner occupiers who live elsewhere and owners of shared grazing or cropping rights.**

The management needs of some Annex 1 birds are complex. The most successful agri-environment schemes for birds have been designed by environmental experts and delivered with the expert assistance (sometimes unpaid) of staff in protected areas and environmental NGOs.

- **where agri-environment schemes are targeted at the needs of specific birds or groups of birds, expert environmental advice must be provided, and followed by all involved - scheme designers, advisory staff, farmers and paying agency staff. Failure in any one of these four links will jeopardise the effectiveness of the whole scheme.**
- **management requirements for birds may be very specific and some flexibility should be allowed to adjust management requirements to the needs of particular species or regional differences in farming systems.**

A major cause of failure of 2004-06 agri-environment schemes has been lack of biodiversity expertise in advisory and paying agencies

- **in all Member States significant and urgent effort and investment by Ministries of Agriculture is needed to improve the biodiversity expertise of farm advisers and paying agency control staff. The national parks and other protected areas provide good models of agri-environment delivery. These institutions, together with environment ministries, academics and NGOs should be considered as a source of contract trainers for advisory services and paying agencies**

Many agri-environment schemes not targeted at birds could be of much greater benefit to them with minor modifications

- **all entry level and horizontal agri-environment schemes should have basic bird conservation measures 'designed in' - for example prohibition of grass burning in high nature value areas, retention and management of small landscape features, nectar and seed producing plants and favourable mowing regimes used for uncropped buffer strips, seeds mixes for winter cover crops.**

The effect of cross-compliance seems to have been underestimated and little attention paid in many cases to the habitat management requirements of Annex IV cross-compliance:

- **effective bird conservation measures (including those now in GFP) should be added to Good Agricultural and Environmental Condition requirements e.g. retention of small landscape features and ponds, bird friendly mowing techniques for grassland**
- **much more effective control of Good Agricultural and Environmental Condition is needed in some Member States, especially of habitat protection measures**
- **requirements to protect permanent grassland should be revised to provide adequate protection for high nature value grassland, and properly enforced**

Proposals for Axis 1 and Axis 2 measures in 2007-13 are, in some Member States, in direct conflict with the aims of agri-environment measures in the same programme, and the Commission's Guidelines

- **EAFRD funds should not be used to support improvements to drainage and other investments in modernising agricultural holdings, afforestation of farmland or energy crops where this will destroy or degrade existing farmland habitats for birds**

The threat of abandonment and lack of grazing livestock is a major problem for agri-environment schemes targeted at grassland.

- **support should be provided for re-introduction of grazing on abandoned high nature value land in a way which assists farmers to acquire livestock when they have none**
- **agri-environment support should be provided for the many high nature value grasslands which are common grazing areas used by farmers who do not own the land**
- **payment rates for high nature value farming systems should reflect the real costs of farming land which would otherwise be abandoned, rather than income foregone.**

Ensuring the long term survival and development of high nature value farming systems in the face of economic and political pressures to convert to larger scale conventional farming will need well designed and funded agri-environment measures combined with other EAFRD support

- **to ensure the protection and development of high nature value farming systems Member States will need to support agri-environment measures in these areas with coherent packages of EAFRD funding from the other three Axes targeted at the specific economic and social problems and needs of high nature value farming areas.**

This study has shown that implementing effective agri-environment schemes for farmland birds requires a combination of:

- **clear objectives for identified species and habitats**
- **expert advice on management requirements and target areas;**

- **attractive payment rates and adequate budget allocations;**
- **well-informed farmers supported by knowledgeable advisory staff;**
- **effective control by trained paying agency staff**
- **evaluation of the impact on habitats and birds, and adjustment of the scheme if required.**