

**AGRICULTURE AND NATURE CONSERVATION IN THE  
CANDIDATE COUNTRIES:  
PERSPECTIVES IN INTERACTION**

**Co-ordinated by Floor Brouwer (LEI), David Baldock  
(IEEP) and Caroline la Chapelle (DLG)**

**Report for the Ministry of Agriculture, Nature  
Management and Fisheries, the Netherlands**

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## LIST OF ABBREVIATIONS

CAP	Common Agricultural Policy
CEECs	Central and Eastern European Countries
CMO	Common Market Organisation
DLG	Service for Land and Water Management
EAGGF	European Agricultural Guidance and Guarantee Fund (= FEOGA)
EBRD	European Bank for Reconstruction and Development
EC	European Community
EEA	European Environment Agency
EIA	Environmental Impact Assessment
ERM	Environmental Resources Management
EU	European Union
EUROSTAT	Statistical Office of the European Communities
GAP	Good Agricultural Practice
GDP	Gross Domestic Product
HNV	High Nature Value
IBA	Important Bird Areas
IEEP	Institute for European Environmental Policy
IPPC	Integrated Pollution Prevention and Control
ISPA	Instrument for Structural Policy for Pre-Accession
LEI	Agricultural Economics Research Institute
LFA	Less Favoured Areas
LIFE	Financial Instrument for the Environment
NGO	Non Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
PHARE	Poland and Hungary, Assistance for the Restructuring of the Economy
RDR	Rural Development Regulation
SAPARD	Special Assistance Programme for Agriculture and Rural Development
SME	Small and Medium-sized Enterprise
WTO	World Trade Organisation





STATEN-GEBOUW  
ALPHEN AAN DEN RIJN

**Foreword by the State Secretary of Agriculture, Nature Management and Fisheries of the Netherlands**

The rich biodiversity of Europe is of inestimable value to our society, it is our moral duty to manage this natural heritage responsibly and preserve it for the generations to come. The Netherlands government takes this duty seriously and invests greatly in the conservation of biodiversity. The European Union has also integrated the awareness of this responsibility in its different policies, inter alia in its agricultural and land use policies. That is why I found it important to organise the *High Level Conference on EU Enlargement: the Relation between Agriculture and Nature Management*. The main goal of the high level conference was to highlight the possibilities for sustainable agricultural development and nature management in the framework of the Common Agricultural Policy (CAP), and to share experiences on this topic with colleagues from the candidate countries, three EU-member states and the European Commission.

As we concluded during this conference the EU faces at this moment one of its greatest challenges: enlargement with at least ten countries. In the process of this enlargement the candidate countries will have to take over the EU policies in the field of nature management and agriculture. This is very important as the candidate countries have in some respect an even richer biodiversity than the current member states. A high degree of the nature values are found in agricultural areas, which emphasises the importance of creating a balance between agricultural policies and nature management. This is an important issue for the Netherlands in the EU-discussions on the development of the CAP and in the enlargement process. This is the reason why the Netherlands government and in particular the Ministry of Agriculture, Nature Management and Fisheries invests in the conservation of nature in these countries. With the Ministry of Foreign Affairs we have been working for a number of years on a Programme of International Nature Management which enables us to support nature conservation projects in the candidate countries.

In the framework of this programme we organised the above mentioned conference. During this conference the high level of ambition the candidate countries have in the field of nature management became clear. This can only be encouraged and supported. The Netherlands will continue to do so and hope that these activities will contribute to an enlarged European Union with outstanding natural variety and beauty.

Mrs Goke Faber  
*Secretary of State for Agriculture, Nature Management and Fisheries of the Netherlands*

## Report of the High Level Conference on EU Enlargement: The Relation between Agriculture and Nature Management Wassenaar, The Netherlands

### I. Introduction

1. Enlargement is one of the greatest challenges the EU will face in the years ahead. After the enlargement of the EU, a large part of Europe will be able to enjoy peace, security, democracy, justice and prosperity. Enlargement provides a unique opportunity for Europe to strengthen its position in the world, politically and economically. The acceding countries are preparing the economic and administrative aspects of their entry. The accession negotiations will be intensive and difficult. The topic of the relationship between agriculture and nature management will be an important one. In order to benefit from each other's experiences it is important to exchange views between the acceding countries and the EU member states.
2. In this framework the Netherlands' Ministry of Agriculture, Nature Management and Fisheries organised a high level conference **on EU Enlargement, the Relation between Agriculture and Nature Management** in Wassenaar, January 22-24, 2001. This was an excellent occasion for the acceding countries to be informed about the specific experiences of each other, the member states and the European Commission with the development of sustainable agricultural policies. It also offered an insight into the challenges both the acceding countries as the member states face in shifting from an agricultural policy based on generic market support, to targeted agri-environmental and rural development measures. The Netherlands' State Secretary for Agriculture, Nature Management and Fisheries, Mrs. Geke Faber, chaired the conference. High level representatives from the acceding countries, some member states and the European Commission participated in the conference. The conference was divided into a plenary session on the general context of the relation between agriculture and nature management in the framework of the accession negotiations and three workshops. The first workshop dealt with rural development, the second with agri-environmental policies and the third with the integration of nature management and agricultural policies. This report contains the main findings of the conference as a whole.

### II. Agriculture and nature management in relation to EU enlargement: agri-environmental policies

3. Mr. Laurens Jan Brinkhorst, the Minister of Agriculture, Nature Management and Fisheries of the Netherlands complimented in his opening speech the timing of this conference just after the Nice Summit where the EU institutional conditions to facilitate the accession process were decided upon. He reminded the participants that the relation between agriculture and nature management is not a new one. It has been discussed on a number of occasions with the acceding countries. Even though agriculture has always been a difficult issue in previous accession negotiations, he advocated that these difficulties should not affect the speed of the enlarg-

gement process. The enlargement process is politically too important to let that happen. He stated that it is our duty to find solutions that will give the agricultural sector long-term, sustainable perspectives in the present and enlarged European Union. He urged the participants to find ways to capitalise on the potentially positive effects of the Common Agricultural Policy on the environment and to prevent its potentially negative effects. In this framework he pointed out that the acceding countries have specific challenges as they have more areas rich in biodiversity to cherish than the existing EU member states.

4. Mr. Franz Fischler, the European Commissioner responsible for Agriculture and Fisheries, stressed in his speech the importance of the enlargement process for the EU and the acceding countries. He sketched the changes in the Common Agricultural Policy (CAP) through the so-called MacSharry- and Agenda 2000-reforms. He highlighted the notion that the enlargement process is taking place while the CAP is developing into a policy of sustainable agriculture, in which the importance of natural values is fully recognized next to the multifunctional character of agriculture. Acceding countries have the opportunity to learn from the experiences in the EU so that they can avoid the mistakes the EU made. Mr. Fischler gave an overview of the CAP-elements which promote sustainability and environmental interests. He stressed the need for a good preparation of the acceding countries, so that they can fully benefit from the CAP-instruments. As well as SAPARD, Mr. Fischler mentioned meetings like this High Level Conference on EU-Enlargement, Agriculture and Nature Management as an important contribution to the ongoing preparatory process of the acceding countries. He stressed the need for the development of networks of experts to share information and experiences.
5. Mr. Darko Simoncic, State Secretary of the Ministry of Agriculture, Forestry and Food of Slovenia, stated that, in the field of nature management, the strategic goal of the acceding countries and the EU is: to maintain the relatively rich natural values in the acceding countries, and to preserve natural resources in the long term. He illustrated the multifunctional character of agriculture in Slovenia by pointing at additional income sources for small farmers and the preservation of cultural landscape and biodiversity. As the most important development objectives for the countryside policies in Slovenia, Mr. Simoncic mentioned protection of the traditional rural landscapes; preservation of the soil fertility and water quality by using environment-friendly cultivation and processing methods; environmental protection; and preservation of biodiversity. He stressed the need for active participation of all stakeholders in society in the development of a new approach to rural development.
6. Participants noted how important these types of conferences are to stimulate sharing of information and experiences between acceding countries themselves as well as with the member states and the Commission.
7. Participants pointed out the importance of support at the political level, i.e. of the national parliaments, for national agri-environmental programmes. This support is needed to generate the necessary funds for these programmes. Therefore, activities to raise the awareness at the political level and of national parliaments are of utmost importance.

8. The issue of the WTO compatibility of sustainable agricultural policies addressing the need of a multifunctional agriculture was raised. This is especially important considering the ongoing negotiations on the further liberalisation of the agricultural sector in the WTO. It was stressed that to ensure this compatibility it is important that during the negotiations the concept of the three domestic support measure boxes (the amber, blue and green boxes) is maintained. Furthermore, the participants encouraged the European Commission to develop a negotiating strategy to ensure that this issue is embodied in the final result of the next round of WTO negotiations.

### III. Agriculture and nature management in relation to EU enlargement: rural development

9. The topic of the first workshop was rural development. In Agenda 2000 the EU rural development policy became the second pillar of the CAP. The EU rural development policy is an important tool to achieve the European model of agriculture as it aims to put in place a coherent framework for sustaining the multiple functions of agriculture in the rural areas, such as creation and maintenance of employment in rural areas; the management of the landscape and the management of biodiversity and other natural values of the rural areas.
10. Mr. Per-Göran Öjeheim, State Secretary for the Ministry of Agriculture, Food and Fisheries of Sweden, gave an overview of the experiences of Sweden with its accession to the EU. In his presentation Mr. Öjeheim stated that the Swedish presidency gives priority to the so-called 'three E's': Enlargement, Environment and Employment. During its accession negotiations, Sweden put much effort in keeping and developing nature- and environmental measures. The main goal of the agri-environmental programme that Sweden has developed after the accession, was to minimise the negative effects of agriculture and maximise its positive effects. Three main criteria formed the basis of Sweden's agri-environmental policies: measures to reduce the negative environmental effects from agriculture (e.g. reduction of the use of pesticides and nutrient leakage); conservation of biodiversity and cultural heritage values; promotion of organic production. In September 2000, the Environmental and Rural Development Plan was approved by the European Commission. Mr. Öjeheim stressed the importance of instruments like training, education and information for the successful implementation of rural development programmes. Furthermore, he named the importance of co-operation with other governmental as well as non-governmental bodies.
11. Mr. Peter Szalo, Deputy State Secretary for the Ministry of Agriculture and Regional Development of Hungary, highlighted the policy of Hungary with regard to rural development. From Mr. Szalo's point of view, the enlargement will increase the biodiversity in the EU. Hungary has developed its own policy towards rural development. The establishment of the Ministry of Agriculture and Regional Development in 1998 gave a considerable impulse to the harmonisation of regional and rural development. Hungary has undertaken many initiatives in the field of rural development of which the last one is the SAPARD-programme. Mr. Szalo

ended his presentation stating with an integrating approach: 'The more economic, the more ecological'.

12. Participants stated that rural development goes hand in hand with the Common Agricultural Policy and the EU structural funds.
13. Participants stressed the difficulty they have had in finding adequate measures to address the problem of abandonment of land. This issue should be a key issue in agri-environmental programmes. The development of national policies on less favourable areas could be an important tool to fight land abandonment.
14. Participants stressed the importance of environmental impact assessment in the development and execution of rural development policies.
15. Participants agreed that an economically viable farming practice is a prerequisite for a sustainable farming practice.
16. Participants stressed the need to attach high priority to research, training and extension services and capacity building in the field of rural development policies. Agricultural research, education and extension should be reoriented from production stimulation to sustainable production methods. It was underlined that there is also a need for reorientation of the experts network in this field.
17. Participants agreed on the important contribution of organic farming to the enhancement of the protection of biodiversity and the environment. They stressed the need to give investment support and to encourage product chain management, marketing, training and extension. It was also stressed that attention should be paid to the enlightenment and education of the general public, civil society and decision-makers. It was recommended to develop indicators in view of the monitoring of relevant aspects of organic farming. It was stressed that targeted financial instruments were needed to stimulate organic farming.

#### IV. Agriculture and nature management in relation to EU enlargement: agri-environmental policies

18. The topic of the second workshop was agri-environmental policies. In combination with other CAP-measures the agri-environmental programmes can contribute to a balanced development of agriculture in the acceding countries. In this respect the challenge is to find ways to develop agriculture without losing the existing value of agriculture in the sense of nature management and environment.
19. Mr. Dominique Pelissie, Deputy Director of the ministry of Agriculture and Fisheries of France, gave an overview of the French experience concerning the Land and Farm Management Contract, introduced in the Farm Act of 1999. Through this instrument the French government promotes the multifunctional role of agriculture as a way to meet the expectations of society. Community expectations involve employment, environmental protection, land use, landscape and biodiversity conservation, quality foods and animal welfare. For a compensation of 35.000 euro in total, farmers can enter into a 5-year contract which had to contain both economical/social elements and environmental/ territorial elements. This contract helped to meet environmental objectives set by local communities, farming organisations, local NGO's and others involved at local levels as part of a strategy about natural and rural areas' services.

20. Mr. Ants Noot, Secretary General of the ministry of Agriculture in Estonia, described in his presentation the changes in policies in Estonia. The liberal agricultural and trade policies of the country were now adapted to fit within the *acquis communautaire*. Preparations were made to introduce national agri-environmental programmes in accordance with the Rural Development Regulation of the EU. They will be a mixture of a general scheme plus supplementary schemes to encourage a variety of production methods designed to protect the environment and the countryside. An organic farming support scheme and an endangered breeds support scheme were introduced in 2000. A semi-natural habitats scheme is next. The second phase will involve a full set of national agri-environmental measures in two pilot areas, funded by the Estonian budget. This will prepare for SAPARD co-financing from 2003 onwards and will raise public awareness. It will also develop administrative capacity for the implementation of a national programme. Lack of qualified staff, availability of donor assistance and some legislative constraints have been major obstacles so far.
21. Participants were impressed with the French system, in particular as the contracts reflected the opinion and the commitment of the farm and community level. It was underlined that the development of such a program needed time. One should not operate too fast and too complex: simplicity was a key element. Clear targets, monitoring of indicators and evaluation are important, as well for the European Commission as to counter possible criticism within the acceding countries themselves. One of the observers said the acceding countries did a better job than the member states when these rural development instruments were introduced after the McSharry reforms.
22. Participants stressed the need for a bottom-up-approach in the development of the programmes for agri-environmental measures. However, it was noted that the sense of urgency felt by involved stakeholders was not always shared by governments and parliaments. The development of indicators and monitoring are important ways of convincing governments and parliaments of the need for the development and application of agri-environmental programmes.
23. Participants underlined the need for the development of simple yet effective indicators to monitor the short-term effects and long-term (economic and nature management) effects of the application of agri-environmental measures. They stressed that in defining these indicators it should be taken into account that the payback period for economic effects is shorter than the payback period for environmental effects of the policies.
24. Participants stressed that when setting up new programmes one should endeavour to keep the schemes as simple as possible in terms of content and procedure. It was felt that as agri-environmental programmes are of a dynamic character the schemes will automatically become more complex over the years. This complexity is needed to fully take into account all the relevant agri-environmental issues. As complexity increases it is important to maintain a reasonable balance between the costs of administration and the benefits expected from the respective schemes. The experiences of member states with their complex rural development programmes, including agri-environmental schemes, could be useful to the acceding countries to strike a balance in their programmes between theory and practice. It

was noted that there is a tension between the level of ambition and the number of farmers who will participate in the voluntary projects. Monitoring is an essential element in a dynamic process so as to enable a quick reaction and a rapid change of the measures.

25. Participants underlined the importance of the European agricultural model of which the multifunctional character is an essential feature. In that respect it was felt that agriculture has a special and important place in society because it ensures the production of food and fibre, is essential to food security and food safety, and to social and economic development, employment, maintenance of the countryside, conservation of land and natural resources and helps sustain rural life and land.
26. Participants pointed out the importance of appropriate education schemes to help farmers in their shift from a production oriented farming process to a sustainable farming process.
27. Participants invited the European Commission and member states to support directly or indirectly the governments of acceding countries to enhance the introduction of agri-environmental schemes.
28. Participants invited the European Commission and member states to pay due attention in the pre-accession policies and especially within the pre-accession programme to the problem of lacking land ownership, registration and land amalgamation in acceding countries, with the aim to give support to the solution of these problems. It was noted that lacking land ownership registration poses also a problem in some EU-member states. Participants identified these phenomena as important impediments to the execution of agri-environmental schemes.
29. Participants raised the question of defining 'usual' Good Agricultural Practice (GAP). The European Commission underlined that it is up to the countries to define their own 'usual' GAP after careful consideration and discussion with the Commission. The concept should at least be made verifiable. To find the correct approach, countries need to do research and collect data. It was added that it would be useful if the acceding countries should not only discuss these definitions with the Commission, but also amongst each other and with the member states.
30. Participants pointed out that they have defined in the past measures comparable to agri-environmental schemes. Of particular concern remain areas that face the problem of abandonment. Agri-environmental schemes should be economically acceptable, ecologically based and socially fair.
31. Participants drew attention to the fact that agri-environmental schemes are only a part of biodiversity management. Sectoral policies like Natura 2000 contribute largely to biodiversity management.

#### V. Agriculture and nature management in relation to EU enlargement: Integration of nature management and agricultural policies

32. The third and last workshop addressed the integration of nature management in sectoral policies, especially in the field of agriculture. This so-called external integration of nature management and environmental considerations in sectoral policies has the important advantage that in shaping the sectoral policies, nature management and environmental considerations are taken into consideration from

- the start of the policy making process.
33. Mr. Johnny Demaiter, Advisor General for the Ministry of Small Enterprises, Traders and Agriculture of Belgium presented the Belgian experiences in integrating nature management and agricultural policy. This presentation gave an insight into the organisation of these policies in a federal state. The federal programmes concentrate on activities that indirectly reduce the pressure on the surrounding environment, such as premium per hectare for organic production methods. The regional activities concern specific programmes to enhance, inter alia, biodiversity, cultural landscapes and the reduction of the use of pesticides. Regional governments have also developed management contracts with farmers. To become eligible for each of these programmes farmers have to meet all the conditions and strictly follow the instructions given. If it is found out that this is not the case, financial support will be stopped or will have to be refunded.
  34. Mr. Jiri Hlaváček, Deputy Minister for the Ministry of Environment of the Czech Republic, gave an overview of the experiences of the Czech Republic with the integration of agricultural and nature management policies. The Czech Republic is putting a lot of effort in the establishment of the Natura 2000 Network. In January 2001 the Management of Natura 2000 Sites Project, financed by the Netherlands' government, was approved. Mr. Hlaváček pointed out that the time factor is very important in the process of establishing the Natura 2000 Network. The Czech Republic is also paying attention to the SAPARD-programme to be used for the interconnection of agricultural and environmental approaches in the landscape. The conclusion was drawn that there is a serious need for exchange of experiences and good examples from the EU member states. Finally, Mr. Hlaváček stressed the importance of actions on the governmental side (e.g. legislation, budgetary aspects, implementation and enforcement) as well as co-operation of all the stakeholders, including governments, farmers' associations, nature conservationists, consumers and NGO's.
  35. Participants mentioned that environmental policies should be formulated in an integrated way. This may involve legal measures financial incentives, research and education, training and extension and the utilisation of dynamics at the local society level.
  36. Participants underlined the need to increase the commitment of all stakeholders, especially farmers, to implement integrated policy measures. The participants were interested in the experiences of some countries with the use of demonstration farms and best ecological farm awards to create this commitment.
  37. Participants stressed the need for an efficient and effective interministerial co-ordination and co-operation that should reflect national political and administrative structures. This should go beyond traditional co-operation between the ministries of agriculture and of environment. The involvement of the ministry of Finance was stressed upon, because every good measure needs an adequate budget.
  38. Participants stressed the importance of trust between all stakeholders. On the one hand, civil society must be able to trust that the government will take environmental objectives into account in its policy making. On the other hand the government must be able to trust that farmers will implement the measures in good faith.

39. Participants stressed the importance of networking between candidate and member states to discuss common problems and exchange views on possible solutions for these problems.
40. In the framework of the integration of nature management and agricultural policy, participants emphasised the importance of training, education, information dissemination and extension. The contribution of general education programmes at secondary schools as well as at agricultural school and university level should be more considerable in forming a long term environmental friendly culture. With regard to extension the need was underlined for independent advisory services to ensure that the advice given to the farmers is as objective as possible. They underlined the importance of free access to information for civil society.

#### VI. Concluding remark

41. The report of the conference was prepared in a transparent and participatory process. The government of the Netherlands will present this report in the Council of Agricultural Ministers and the Council of Environmental Ministers of the European Union. Participants thanked the Netherlands Ministry of Agriculture, Nature Management and Fisheries for organising this conference and offering the opportunity to exchange views, information and experiences on EU enlargement and the integration of agriculture and nature management.

## 1. INTRODUCTION

### 1.1 Background and context



Estonia: Wet, delta grasslands in Matsalu Nature Reserve with development of tall herb vegetation (photo: Peter Veen) © Peter Veen

The EU enlargement process includes the adoption by the candidate countries of the EU *acquis communautaire* in sectors such as agriculture and the environment. As far as biodiversity, in particular nature conservation, is concerned, the adoption of the environmental *acquis communautaire* involves mainly the transposition and implementation of the Habitats and Birds Directives. This legislation is designed to legally protect certain areas, which will together form the ecological network of 'Natura 2000' sites. The EU agricultural legislation, the Common Agricultural Policy (CAP), has an important impact on biodiversity, not only in Natura 2000 areas, but also in the wider countryside. The nature of effects can be both harmful and benign. In the EU, the CAP (including its rural development section with LFA and agri-environment measures) has an impact on the economic viability of different forms of land use, including those that are essential from a nature conservation perspective. The rural development measures support a range of specific objectives, including maintaining agriculture in economically weaker areas, maintaining biodiversity on farmland, and the promotion of organic farming.

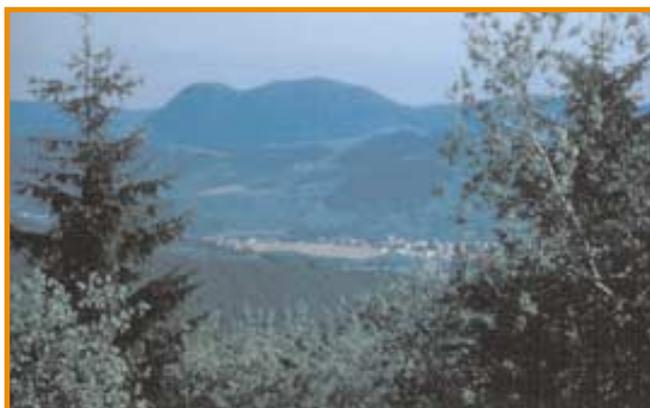
Biodiversity on farmland in the candidate countries includes semi-natural grasslands, rich in flora and fauna, and areas important for birds. The latter include the breeding areas of threatened species and areas important for migratory birds. Both categories experienced declining trends during the past 50 years, mainly due to the intensification of agriculture. More recently, marginalisation and abandonment of agricultural land, have become a serious threat as well. Abandoned land generally turns to forest over time, but the newly established ecosystems generally are less important for threatened species than semi-natural areas.

The state of biodiversity in the candidate countries shows comparable features to conditions in the EU. Part of the farmland has a high value to nature, which on average could be as much as about twenty or thirty percent of the land area. However, a major part of the farmland has rather good environmental conditions, mainly due to limited use of agrochemicals (fertilisers and pesticides). Such conditions generally are favourable for adjacent nature and forest areas, as well as for streams, rivers and other wetlands. The challenge is to maintain these qualities and to seek for strategies and instruments that support them.

## 1.2 Objectives of the report

An abridged version of the report has been used as background report to the High Level Conference on EU Enlargement: The Relation between Agriculture and Nature Management. The current report offers a synoptic and mainly factual overview on the key interactions between agriculture and nature conservation in the candidate countries. Attention will be drawn to current trends in the candidate countries particularly in CEE, to give context to relevant policy options and strategies which integrate environmental concerns with agriculture, nature conservation and rural development.

## 1.3 Acknowledgements



Slovakia: Dobsina, with high biodiversity maintained by traditional agriculture (photo: Saxifraga/Mihaly Vegh)

This report has been compiled for the Netherlands' Ministry of Agriculture, Nature Management and Fisheries and in agreement with the Netherlands' Ministry of Foreign Affairs (MATRA Fund/Programme International Nature Management).

A draft version of the report was discussed with a steering group from the Ministry of Agriculture, Nature Management and Fisheries in the Netherlands, chaired by Mr. Frederik Vossenaar (Division of Nature Management). We very much appreciate the advice offered by the steering group. The report gained much from the

remarks made by Gerard van Dijk (currently with the United Nations Environment Programme in Geneva).

Floor Brouwer (LEI), David Baldock (IEEP) and Caroline la Chapelle (DLG) co-ordinated the report. It builds on contributions from a broad group of experts. Written contributions have been made by Harriet Bennett (IEEP), Peter Veen (Veen Ecology) in co-operation with the co-ordinators and specialists of national grassland mapping projects in CEEC and Szabolcs Nagy of Birdlife International, Alistair Fulton (ERM), Martien Lankester (Avalon), Geert Posma (Sound Farm Food), Henk Kieft and Darko Znoar (both ETC).

The report builds on knowledge developed over the past three to four years in all the countries covered. Several experts in candidate countries have shared their knowledge in identifying the interactions between agriculture, nature and biodiversity. We wish to thank everyone who has contributed to collecting the material, which forms the basis for this report.

## 2. CURRENT TRENDS IN CANDIDATE COUNTRIES

### 2.1 Agriculture and environmental quality

The total population of the candidate countries is well over 170 million inhabitants, which is about half of the total population of the current EU. The share of agriculture in the GDP of the EU is about 2%, but it exceeds that level in all candidate countries, and is over 10% in Bulgaria, Romania and Turkey. Agriculture typically has a more than proportional share in national employment. In the EU, about 5% of the labour force is employed in primary agricultural production. More than a quarter of the labour force is employed in agriculture in Bulgaria, Romania and Turkey. In terms of its contribution to GDP and total employment, agriculture remains more important in the candidate countries than in the EU. Some key features of agriculture in the candidate countries are presented in Table 1.

Table 1. Key features of agriculture in the candidate countries in 1999

	Population (mln)	GDP per capita (euro)	Share of agriculture (%) GDP	Employment	Agr. Import (mln euro) a)	Agr. Export (mln euro) a)
Bulgaria	8.3	1400	17.3	26.6	312	542
Cyprus	0.7	12100	4.2	9.3	913	675
Czech Rep.	10.3	4800	3.7	5.2	1489	1011
Estonia	1.4	2900	5.7	8.8	683	440
Hungary	10.1	4500	5.5	7.1	848	2155
Latvia	2.4	2400	4.0	15.3	501	434
Lithuania	3.7	2700	8.8	20.2	336	157
Malta	0.4	8500	2.5	1.8	257	51
Poland	38.7	3700	3.8	18.1	2938	2619
Romania	22.5	1400	15.5	41.7	813	274
Slovakia	5.4	3300	4.5	7.4	568	299
Slovenia	2.0	9400	3.6	10.2	723	354
Turkey	65.4	2800	14.3	41.3	1311	3946
Total	171.3	3100	8.6	29.0	11692	12957
EU-15	368.9	20800	2.0	5.0	246408	236914
a) 1998						
Source: EUROSTAT						

The agricultural sector in Central and Eastern European Countries (CEECs) faced major changes during the 1990s. Farmers in CEECs have faced changes in land ownership (privatisation and splitting up of large co-operatives) and in relative prices. The consumer prices for agricultural products have increased since the abolition of food subsidies, but prices of agricultural output increased by considerably less than prices of variable inputs such as fertilisers and pesticides. Total consumption of fertilisers has more than halved in CEECs during the first half of the 1990s. More recently, it has tended to increase again. The costs of variable inputs

and of credit have increased at higher rates than wages; therefore agricultural incomes fell during the economic crisis of the first years of the transition. These factors induced a decline in intensity of production. The decline in agricultural production was particularly pronounced in the animal sector. Agricultural output from animal production decreased between 1990 and 1994 by more than 30% in the 10 CEECs. During the same period, the use of fertilisers and pesticides decreased significantly, and cattle numbers fell by 39%, sheep numbers by 43% (Baldock, 1997). Such changes have had important consequences for the environment, including biodiversity. The significant declines in use of agrochemicals have reduced pollution and environmental health risks (EEA, 1999). Land use is not as intensive as in many EU countries, which is positive for biodiversity, landscape diversity and maintaining ecological processes (EEA, 1999). The changes that have taken place during the past ten years also altered the interactions between agriculture, biodiversity and nature management. Improvements in environmental quality have also contributed to these changes. The quality of groundwater and surface waters, for example, is likely to have improved following the reduction in use of fertilisers and pesticides. This is an important factor for nature areas adjacent to farmland, wetlands, brooks and rivers, and finally, the Black Sea and Baltic Sea. While the state of the overall physical environment in general has improved, the situation of biodiversity on farmland itself has remained under pressure during the last decade especially due to land abandonment. In the future, both abandonment and intensification are likely to be the main threats in CEECs. Such trends are further elaborated in the next section of the report.

Economic progress in most of the candidate countries has been gradual but slow since 1992, but differences between countries and sectors remain large. The fragility of the economic recovery is illustrated by the sharp decline in output of the agricultural sector in Bulgaria and Romania due to continued severe economic crises, which began in these countries in 1996. The decline in economic activity was mainly due to delays in implementing structural reforms and price liberalisation.



Estonia: Mowed, wooded meadows near Haapsalu (photo: Peter Veen) © Peter Veen

Strong growth in most candidate countries in 1997 led to vigorous domestic and, to a lesser extent, exports demand. Some recovery in output is expected in Bulgaria and Romania in the coming years, while moderate growth is likely to continue in the Central European and Baltic countries.

Ten years after the transition, the agricultural policies of most CEECs are still 'at the crossroads'. These policies reflect a diversity of development visions and concepts of implementation. A turbulent political climate, with frequent political changes and replacement of key policy makers, makes it very difficult to set up and consistently implement any mid- or longer-term policy. The role of the ministries of agriculture is not yet fixed in some countries. Furthermore, the accession process demands major efforts from policy makers. Harmonisation with the EU legislation requires substantial human resources.

Conditions in the ten CEECs differ from those in the three other candidate countries (Cyprus, Malta and Turkey). The CEECs faced major reductions in the use of inputs, which diminished their capacity to grow crops. Such changes reduced the production capacity of these countries. Nature conservation perspectives may also have been affected by this transition. One of the main issues for Cyprus, Malta and Turkey, where falls in production capacity have not occurred, will be to prevent or control any harmful effects on the environment (including biodiversity) of future agricultural development.

## **2.2 Interactions between agriculture, environment and nature**

Major changes in the agricultural sector of CEECs during the first years of transition induced substantial reductions in both agricultural production and in the input of agro-chemicals. This was linked to an extensification of land use, changes in farm structures and farm management practices. Such developments have changed the relationship between agriculture and environment (including biodiversity/nature management). Reductions in fertiliser use and pesticides have contributed to enhanced water quality, and consequently may have supported biodiversity in areas with traditional low-input agriculture and nature areas (e.g. rivers and other wetlands) that are hydrologically linked to farmland. By contrast, the reduction in livestock numbers has caused farmers to abandon their farmland, and large areas with high nature value, which are dependent on grazing, are threatened. The nature conservation value of more natural grassland in particular is reduced by the dominance of a few species and subsequent scrub invasion when mowing or grazing is discontinued. The current transition period and the orientation towards a market economy may initiate a new period of highly intensive agriculture and increased agricultural production may induce losses of areas with high nature value. The challenge therefore, is to find ways to develop agriculture without losing the existing environmental value of agricultural land.

Declining trends in agricultural production might be affected by a combination of environmental, geographic, agricultural, socio-economic and political conditions. Such conditions could reduce the viability of farming. A combination of

factors could cause the cessation of farming under an existing land use and socio-economic structure, usually leading to a change in land use or even land abandonment. The conversion to more extensive management of land in intensive areas is generally beneficial to the environment, reducing pressures on water and soils from agricultural sources. Water quality problems caused by nitrates and pesticides will be lessened when land is farmed less intensively. However, in contrast, the major changes in agricultural management can also give rise to marginalisation and abandonment of agricultural land. This can induce a loss of valuable habitats and species diversity. In addition, soil erosion, wild fires and declining biodiversity are major concerns in some marginal areas.

Agriculture has played an important role in European nature conservation for centuries. The report focuses on semi-natural grasslands (also including steppe grasslands, alkaline grasslands and coastal grasslands) and important bird areas (especially those important for breeding and migratory birds). Semi-natural grasslands have been selected by the OECD as an indicator of habitats on farmland. In addition, bird populations could be suitable indicators for the impacts of agriculture on biodiversity. Large areas of natural grasslands have disappeared during the 20th century. Throughout Europe there was still a wealth of semi-natural areas being maintained, often by traditional agriculture in the 1950s. These semi-natural habitats (mainly grasslands) have become indispensable substitutes for original natural habitats and hence for the survival of a great number of species. During the last decades of the 20th century however, most of these areas, in their turn, came under pressure from intensification.

There are many types of farmland areas of high nature value. The most important can be categorised as follows:

<i>Natural and semi-natural grasslands</i>	<i>Other improved grasslands valuable for birds</i>	<i>Areas rich in natural features</i>
<ul style="list-style-type: none"> <li>◆ Restricted to low-input agriculture.</li> <li>◆ Usually very rich in flora and fauna.</li> <li>◆ Maintained by low nutrient inputs and long-term use as grassland.</li> <li>◆ Threatened by intensification and abandonment.</li> <li>◆ Vary in typology across Europe due to climatic and abiotic conditions, and variations in management styles.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Often not dependent on extensive agriculture, but vulnerable to intensive farming methods.</li> <li>◆ Partly classified as areas important for breeding or migratory birds.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Often contain hedges, small woodland areas, small wetlands etc.</li> <li>◆ Common in regions where the production potential is limited by steep slopes, high water tables and/or unproductive soil types.</li> </ul>

The category 'areas rich in natural features' is not reviewed separately, because it overlaps with natural and semi-natural grasslands. However, historical landscapes

with natural features also exist outside the semi-natural grasslands. Landscapes like bocage with hedgerows and small forest patches, ponds, local peat bogs, fens and other marshlands, are widespread in certain parts of the CEECs, especially in regions with steep slopes, high water tables and less productive soils.

In the CEECs intensification was to a considerable extent linked to farm collectivisation. Collectivisation resulted in, for example, the introduction of large scale ploughing of steppe grasslands extending over the east of Hungary towards the Black Sea. In the Mediterranean countries intensification also took place and, in Turkey for instance, the area of steppe grassland was reduced from 59.8% to 31.1% of the total agricultural landscape between 1950 and 1984.

Many of the remaining European semi-natural areas are now threatened both by further intensification of agriculture, and at the same time marginalisation and abandonment affect other areas. Abandonment has become widespread in the last decade in CEECs due to a change in market conditions for crops and livestock and major structural changes in agriculture. In some countries, like the Netherlands, certain semi-natural areas are grazed primarily for conservation in the framework of the management of protected areas but in Europe in general such actions cover only a small minority of the valuable areas. Therefore at least in the short and medium term extensive farming systems play an indispensable role.



Romania: Traditional hay making in Bucovina region (photo: Peter Veen) © Peter Veen

### 2.2.1 Semi-natural grasslands

Semi-natural grasslands are defined here as grassland ecosystems, managed by farmers (mowing and/or grazing), so that they prevent natural succession to forests. Semi-natural grasslands are important to maintain the characteristic populations of plants and animals in these ecosystems. The continuity of an applied management style in a certain area is a key factor in ensuring the survival of biodiversity in semi-natural grasslands (Rychnovská *et al.*, 1994). Succession to forest will mostly occur in the absence of grazing but much sooner after aban-

donment already the botanical values will decline. Due to the extreme vulnerability to both intensification and abandonment, semi-natural grasslands are among the most vulnerable ecosystems.

Semi-natural grasslands have a relatively natural character and notable richness in species, thanks to low fertiliser input and continuous use as grasslands over a long period. They show a great variety across Central and Eastern Europe. The differences are mainly based on the large variation in climatic and abiotic conditions, and caused by the variation of management styles. The development of semi-natural grassland is dependent on local conditions occurring within a range of different biogeographical units within Europe. Differences in climatic conditions, such as precipitation and temperature, are key factors zoning vegetation in Europe. The Carpathians and Alps divide Europe into a northern Atlantic and Boreal zone and a southern Pannonical and Mediterranean zone.

Both the semi-natural grasslands which have been subject to relatively low nutrient application and those left unfertilised support high biodiversity, and many sensitive plant, bird and butterfly species are connected with these types of biotopes. For instance, 65% of the European Red List Butterfly species live in grassland habitats used for traditional farming; therefore its continuation is essential for their survival (Van Swaay and Warren, 1999). The same goes for at least many hundreds of species of plants.

Table 2. Estimated distribution of agricultural areas, permanent grasslands and (semi)-natural grasslands in candidate countries

Country	Total area (ha) a)	Agricultural area (ha) a)	Permanent grassland (ha) a)	Semi-natural grassland (ha) b)	Alpine grassland (ha) b)	Semi-natural grasslands in total permanent grasslands (%)	Semi-natural grasslands in total agricultural area (%)
Bulgaria	11,099,400	6,215,700	1,163,500	444,400	332,100	38.2	7.2
Czech Rep	7,886,400	4,258,700	946,400	550,000	1,800	58.1	12.9
Estonia	4,510,000	1,533,400	315,700	73,200	0	23.2	4.8
Hungary	9,303,200	6,233,100	1,116,400	850,000	0	76.1	13.6
Latvia	6,458,900	2,454,400	775,100	117,900	0	15.2	4.8
Lithuania	6,530,000	3,134,400	848,900	167,900	0	19.8	5.4
Poland	31,270,000	18,762,000	4,040,400	1,955,000	413,600	48.4	10.5
Romania	23,750,000	11,846,900	4,987,500	2,332,700	285,000	46.8	19.7
Slovakia	4,903,600	2,451,800	833,600	294,900	13,100	35.4	12
Slovenia	2,025,600	500,400	495,000	268,400	29,800	54.2	53.6
CEEC	107,737,100	57,390,800	15,522,500	7,054,400	1,075,400	45.4	12.3

a) European Commission (1998a); b) Co-ordinators national grassland mapping projects and local specialists.

Table 2, drawing on data from several sources, including a number of national grassland mapping projects (Veen and Seffer, 1999), shows the significant area of semi-natural grasslands remaining in the 10 CEECs. This is a vital resource for nature conservation.

The total area of semi-natural grasslands in the 10 CEECs amounts to about 7.05 million hectares (12.3% of agricultural land). Poland and Romania each have a share of about 30% of these biodiversity-rich grasslands, followed by Hungary having a share of 12%. Less than 30% remains for the other CEECs. It should be stressed that the biogeographical position needs to be taken into account in evaluating the distribution of the (semi-)natural grasslands across the CEECs. Many endemic species grow in grassland habitats. Although no estimates are available, we may assume that in countries with many endemic plants such as Bulgaria and Turkey, grassland habitats play a vital role in the conservation of these species. The semi-natural grasslands of the Baltic States are, for example, valuable, as they support rare grassland ecosystems like alvars and wooded meadows, which are endangered throughout Europe. They are among the last examples of a formerly much larger area around the Baltic Sea. In Slovenia, the dry, basidophilous grasslands (*Festuco-Brometea class*) are among the grasslands that are richest in species in Europe and the concentration (53% of the Slovenian farmland is semi-natural grassland) is exceptional in Europe. The share of semi-natural grassland in the total area under permanent grassland ranges between 20% (Lithuania) and 75% (Hungary). It was reduced during the period of collectivisation, since many semi-natural grasslands were ploughed and cultivated intensively.

Turkey, Cyprus and Malta are not included in Table 2, because of a lack of information concerning the extent of semi-natural grasslands in these countries. These three countries are all situated so that they are under the influence of the



Estonia: Dry, alvar grasslands on Saaremaa Island (photo: Peter Veen) © Peter Veen

Mediterranean biogeographical region. The flora of Turkey is very rich (Byfield, 1998):

- ♦ Turkey has the richest flora of any country in Europe, the Middle East and North Africa (a total of almost 9,000 species);
- ♦ More than 2,800 endemic species have been recorded, representing 32% of the flora of Turkey;
- ♦ Three biogeographical regions apply to Turkey, including the Euro-Siberian, Irano-Turanian and Mediterranean floristic regions.

In 1950, almost 60% of Turkey was covered by the three types of grassland: stepic grasslands, highland grasslands and moorlands (Baris, 1991). By 1984, this percentage was reduced to about 30%. The majority of this steppic grassland was transferred to pseudo-steppe land and used for non-irrigated cereal cultivation and fallow. The total grassland area was 27.7 million ha, which represents more than half of the national territory (data 1986). It is largely of a different nature than in the other countries. For Cyprus, the total permanent grassland area amounts to 5,000 ha (Tucker and Evans, 1997). On Malta, no permanent grassland area was counted.

### 2.2.2 Valuable bird areas

Europe's farmland holds a rich avifauna. This can be demonstrated through an analysis of the importance of agricultural and grassland habitats for the conservation of bird populations in Europe. In total, some 173 priority species are found within the total agricultural land area in Europe of 500 million hectares (50% of the total area). Nearly 70% of these priority species have an 'Unfavorable Status' in Europe, which means that measures are necessary to reverse their declining populations.

Many of these priority species rely on the Important Bird Area (IBA) network, identified by scientists at the request of Birdlife International (Heath and Evans, 2000). IBAs were established to identify and protect a network of sites, at a biogeographic scale, which together are critical for the long-term viability of bird populations.



Slovenia: Mount Peca, maintaining vegetation (photo: Saxifraga/Mitja Kaligaric)

IBAs are recognised if they are an important habitat for a threatened species, a congregatory bird species, assemblages of restricted-range species, or assemblages of biome-restricted bird species. Sites identified as IBAs are likely to form part of the 'Natura 2000' network established under EC nature conservation legislation - the Birds and Habitats Directives. Agriculture is a major land user in many of these IBAs, amounting to 11.3% of the total area in Hungary and 13.0% in Slovenia. However, this share is lower than the average share of agriculture in total land use.

In practice, however, significantly larger areas than the 'official' list of IBAs are of real importance for bird populations and hence 'candidates' for policy intervention. They comprise both breeding areas, often important for species that are rare in the EU (White Stork, Corncrake, Whinchat, Great Bustard, Shrikes, etc.) and areas important for migrating water birds, like Geese, Swans, Cranes and Waders. As an illustration, we will compare the breeding populations in the EU and the CEECs for some species (Table 3). Populations of species such as the White Stork (*Ciconia ciconia*), Swallow (*Hirundo rustica*) and Corncrake (*Crex crex*), which have suffered from population declines in recent years due to their dependence on traditional farm management are likely to increase. Many areas of unique European importance which depend on agriculture, such as Important Bird Areas and Ramsar sites, also look likely to be conserved through agri-environment programmes for years to come.

Table 3. Populations of some breeding birds in 15 member states, compared with the 13 candidate countries

Species	Minimum population in candidate countries	Minimum population in EU-15
Corn crake	92,225	4,000
Lesser Grey Shrike	46,255	3,098
Lesser Spotted Eagle	5,950	190
Red Footed Falcon	2,300	2
White Stork	79,809	15,439

Source: Tucker and Evans (1997).

A number of farmland habitats are important for birds during their passage or wintering in the 13 candidate countries. Farmland birds tend to be less congregatory than water birds and perform mostly wide-front movements. The following farmland habitats are particularly important during migration because they hold large number of birds (Tucker and Evans, 1997):

- ♦ Arable and improved grasslands, with many priority species associated with agricultural habitats that are generalists, feeding on a broad range of food resources. Species feed on nutritious and productive grasses or other field crops and may be adapted to land subject to agricultural improvements and

certain intensive production systems. These groups include Geese, Cranes and Pigeons, which are present at a large number of IBAs in the candidate countries.

- ♦ Steppe habitats, which are represented primarily by the Pannonic and Turkish steppes and pseudo-steppes (low-intensity cereal farm and grassland mosaics) in the region. The Hungarian 'puszta' is important for Raptors, Cranes and the globally threatened Lesser White-fronted Goose during migration.
- ♦ Wet grasslands, which include Baltic coastal meadows, riverine and lakeside flood-plain meadows and washlands. The coastal grasslands of the Baltic coast are temporarily flooded by brackish water. The habitat has a significant importance for migrating birds, especially geese, Bewick's Swan, Crane, Lapwing, several *Calidris* species, Curlew, Whimbrel and Grey Plover, but wintering populations are relatively low due to the harsh climate.



Hungary: Somogye, with small-scale agriculture (photo: Saxifraga/Jan van der Straaten)

- ♦ Rice cultivation, which reaches its limit at Hungary in Europe. Besides Hungary there is some rice cultivation in Romania, Bulgaria and Turkey. It decreased substantially in most of the countries with transitional economies due to the abolition of market protection. Formerly they have played an important role in the spring migration of waders and as moulting places of ducks.

Information on the area and location of semi-natural grasslands and areas that are important for certain breeding birds and migratory birds is of particular importance for the integration of biodiversity concerns in agriculture. This applies in particular to the implementation of agri-environmental programmes with biodiversity objectives. Semi-natural grasslands are currently being mapped in several countries, while a similar project in Poland, though not comprising all grassland types, was completed during the mid-1990s.

The updated inventory of IBAs by Birdlife International has been published in 2000. However, additional data will often be required for the planning of agri-environmental programmes, because more areas are important for bird populations. In several CEECs bird census information is available, which can provide such addi-

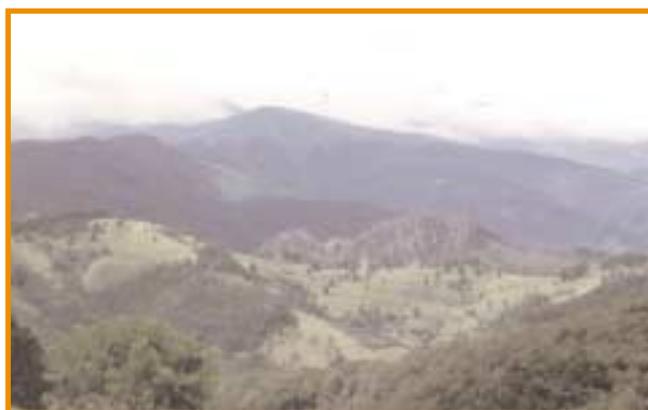
tional information for designation of areas which need protection and applied management, like Poland (Krogulec, 1998), Hungary (Nagy, 1998), Czech Republic (Stastny *et al.*, 1996) and Slovenia (Geister, 1995). This information is not reported here. The well-known IBAs, however, could well be included in the priority areas of a first wave, together with semi-natural areas because of their other flora and fauna.

### 3. THE EU PERSPECTIVE

The future enlargement of the European Union presents new challenges for all the countries involved. In order to prepare countries for accession, the EU has developed a pre-accession strategy, which is outlined in Agenda 2000. This focuses on specific areas of the *acquis communautaire* where the candidate countries still have work to do. Community pre-accession aid will prioritise the resolution of problems in adapting the economies of the candidate countries in a sustainable manner, and facilitating implementation of the *acquis communautaire*. One of the priority areas for Community support has been identified as agriculture and rural development.

#### 3.1 Environment, agriculture and rural development

The environment has long been recognised as a major concern of the European Union. The policies of the Union reflect this, and fundamental to the Community's Fifth Environmental Action Programme is the principle that the environment must be integrated into the policies and actions of industry, government and consumers, especially in the target sectors (including agriculture). Agriculture is specified in the Fifth Programme as one of the key sectors where integration of environmental considerations is a priority. Nature conservation is identified in this and other documents, such as the draft Sixth Programme, as a major priority. The need to monitor agricultural impacts on the environment more effectively and improve the environmental evaluation of agricultural policy has been recognised in recent documents, such as the Commission Communication on sustainable agriculture (European Commission, 1999).



Slovakia: Mountainous grasslands in Polana Biosphere Reserve (photo: Peter Veen)  
© Peter Veen

Sustainable development has been made an explicit objective of the EU in the Amsterdam Treaty. The requirement to integrate environment into EU policy sector arises from Article 6 of the Consolidated Treaty, and applies to all policy

sectors. The European Council at Cardiff in June 1998 endorsed the principle that major policy proposals made by the Commission should be accompanied by an appraisal of their environmental impact. At the same meeting the Council considered a Commission Communication entitled 'A Partnership for Integration: A Strategy for Integrating Environment into EU Policies' (European Commission, 1998b). This proposed a strategy to implement the requirements of Article 6. It directs attention to sectoral practices as being the origin of most environmental problems and therefore the source of the solutions. It reiterates that sustainable development is a concept which brings together concerns for social and economic development alongside protection of the environment, and that policies which result in environmental degradation and depletion of natural resources, are unlikely to be a sound basis for sustainable economic development.

In rural areas there is clearly a significant level of interdependence between economic activities such as farming and tourism, and the quality of the environment. The productivity of land beyond the short term is entirely dependent on a certain level of soil, water and air quality, which in turn is governed by the application of appropriate environmental standards which must apply to economic activities taking place in the countryside. In addition, rural areas are vital reservoirs of European wildlife and genetic diversity which, in many areas, have been formed by generations of agricultural activity, and are now being affected by changes to those traditional systems.

The relationship between agriculture and nature conservation is of particular significance in Europe because of the limited remaining area of more natural habitat. Many species of plants and animals have become dependent on farmland, although these semi-natural and other high nature value areas have in their turn declined considerably and are under continued pressure of intensification and land abandonment.

### **3.2 The adoption of agri-environmental programmes**

European agri-environment programmes in their current form stem from two separate but related policy debates. The first is an environmental debate about the best means of ensuring appropriate management of agricultural land to meet nature conservation or landscape objectives. In the post-war years protected areas were the lynch-pin of nature conservation and landscape policies as applied to farmland. By the 1970s it was becoming clear that intensification and farm modernisation were threatening environmental values in the countryside, and farmers could not be required to maintain those practices which were essential for conservation. It was becoming increasingly difficult to persuade farmers to maintain or introduce the type of management that was required because it was not generating sufficient economic returns. Hence the need arose to compensate farmers and landowners for maintaining or reintroducing environmentally sensitive practices. The second policy debate was over a need to broaden agricultural policy beyond the traditional preoccupation with supporting production and productive investment, and to

begin rewarding farmers for other 'services', notably management of the rural environment.



Slovakia: Floodplain grasslands along Morava river (photo: Peter Veen) © Peter Veen

The first agri-environment policies entailing regular management payments to farmers were introduced by a handful of countries in northern Europe. There were early schemes in the Netherlands and the UK leading to the first EU policy framework in 1985. By 1992 this had developed to become an obligatory measure for all EU member states. This decisive change took place as part of the Mac Sharry reforms of the CAP, and led to the rapid growth of agri-environment schemes throughout the Community.

The agri-environment Regulation 2078/92 is referred to as an 'accompanying measure' because it supplemented major reforms in the market regimes, and was intended both to help farmers to adjust to a new form of agricultural support and benefit the environment. The new regulation not only created an obligation to all member states to introduce agri-environment programmes within a relatively short period, but it also made available a significant budget for this purpose. All member states were able to obtain 50% reimbursement towards the costs of their schemes, and in Objective 1 regions <sup>1</sup> the reimbursement rate was 75%. The new Regulation also widened the range of possible schemes, which could be applied by member states. For example, it became possible to provide aid to farmers to manage abandoned land in an environmentally appropriate way and it was no longer necessary to focus on 'Environmentally Sensitive Areas' which had been the focus of earlier EU measures.

Implementation of Regulation 2078/92 began in 1993, but rates of progress were variable between member states. Initially many programmes approved by the EC were in countries with existing agri-environment programmes, which could be adapted or extended to comply with the new EC framework. By 1996 all 15 member states had implemented schemes, and by 1999 these covered 20% of the EU's land area. New schemes are still being submitted by member states for approval by the EC, and existing ones continue to be amended and refined.

<sup>1</sup> The least developed parts of the EU.

Consequently, implementation is a dynamic process reflecting the different priorities of national and regional authorities, which have considerable scope for designing their own schemes within the broad framework of the Regulation.

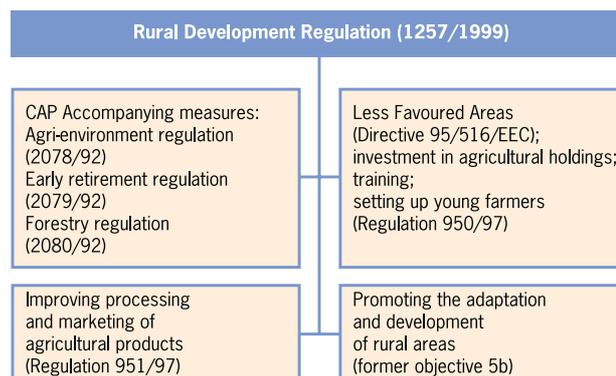
### 3.3 Interactions between agriculture, nature conservation, the countryside and the CAP

Globalisation of world trade, consumer-led quality requirements and EU enlargement are some of the new realities and challenges that European agriculture has to face. The changes will affect both agricultural markets and local economies in rural areas. These changes will probably be reflected in a revised CAP. The CAP is still one of the most important factors determining the economic viability of individual farms in the EU, but comparable support does not exist to the same degree in the candidate countries.

The options for changes in the CAP and the outcome of accession negotiations remain uncertain. Will a revised CAP include reduced forms of support, relative to the existing system, with targeted payments for public goods like biodiversity, landscape and other environmental benefits? Will the CEECs focus on rural development? What will be the eventual common policy in the enlarged EU? Will there be transition periods on both sides. For all these reasons the CAP is considered here only in general terms as its precise future form remains uncertain.

The Rural Development Regulation (RDR) is the framework for a variety of policies, shown in the diagram below. Several of these are of importance for nature conservation, including the agri-environment programmes and Less Favoured Areas scheme. The new EC Regulation (1257/1999) on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF) is based on, and supersedes, a number of previously existing regulations and support measures (Figure 1).

Figure 1. The Rural Development Regulation (1257/1999) (after Lowe and Brouwer, 2000)



The core of the CAP includes a wide range of measures that attempt to manage the markets for agricultural products in the EU. Common Market Organisations (CMOs) for agricultural products (such as arable, beef and dairy products) cover an important part of CAP expenditure. In the EU direct payments (subject to gradual reduction) currently help to guide the implementation of CAP reform towards a more market-oriented approach. Currently, such payments apply mainly to the production of arable, beef and sheep products. Agri-environmental measures are included in the context of the Rural Development Regulation (1257/1999).

In the Agenda 2000 reform of the CAP, rural development measures, including agri-environment measures were given greater significance. The rules were simplified, and agri-environment measures (financed by the Guarantee Section of EAGGF) became a central strand of a broader policy of rural development, set out in Regulation 1257/1999, remaining obligatory for all member states. However, the Berlin Summit did put a ceiling on the expenditure of rural development measures (not counting flexibility due to the modulation option) in the final decisions. The new, more integrated set of rural development measures is expected to grow over time. Rural development includes support for farm investment, less favoured areas, setting up of young farmers, vocational training, early retirement, forestry, processing and marketing, and adaption and development of rural areas. Rural development will absorb about 10% of the CAP budget for the period 2000-2006, with total expenditure amounting to approximately double the sum contributed from the EU budget.

Incomes from High Nature Value (HNV) farming systems tend to be low and the future of such farming systems could be threatened by marginalisation. CAP support measures are vital to maintain the viability of such farming systems in many areas.

Apart from Agenda 2000, member states need to implement measures to ensure that farms receiving direct payments are meeting environmental protection requirements. According to Article 3 of Council Regulation (EC) 1259/1999 establishing common rules for direct support schemes under the common agricultural policy 'member states shall take the environmental measures they consider to be appropriate in view of the situation of the agricultural land use or the production concerned and which reflect the potential environmental effects'. Considerable variation remains within member states in deciding what is appropriate. Three approaches are currently available to internalise external effects of agricultural production into farming practices:

- ♦ First, *general mandatory environmental requirements* in meeting the legal constraints, and the application of minimum environmental conditions in agriculture that all farmers need to comply with.
- ♦ Second, *support for agri-environment schemes* and the provision of environmental conditions to agricultural support measures for farmers, delivering environmental 'services' on a voluntary basis. Such an additional payment can

be provided if management exceeds legal requirements (applicable to cross-compliance).

- ♦ Third, *specific environmental requirements that put a condition for direct payments*. This is commonly called cross-compliance. A few member states have attached environmental conditions to direct payments. In the event of cross-compliance, the amount of income support is only reduced if a farmer fails to meet the relevant environmental and conservation conditions.



Hungary: Fertőrákos, important wetland area (photo: Saxifraga/Jan van der Straaten)

The above approaches should contribute to achieving better implementation of Community environmental legislation (e.g. the Nitrates Directive 91/676, Water Framework Directive) and nature conservation legislation (e.g. Birds Directive 79/409 and Habitats Directive 92/43).

#### 4. THE CANDIDATE COUNTRIES' PERSPECTIVE



Hungary: Alkaline, puszta grasslands with Hungarian puszta cows in Kesznyeten Protected Landscape (photo: Peter Veen) © Peter Veen

Several EU programmes for technical and economic support have been established to assist countries to prepare for accession. The PHARE Programme, for example, was established to assist Poland and Hungary in their reforms and has later been opened to all CEE candidate countries. PHARE was originally the main financial instrument for pre-accession, but other types of assistance, including technical assistance for the approximation of laws and standards and the provision of financial assistance for infrastructure have gradually been added. The twinning programme, which is part of PHARE, offers funding for exchanges between officials in the EU administration handling Community policies and officials in the candidate countries. It aims to support applicant countries in establishing administrative and technical expertise. Another institutional activity was the setting up of the European Bank for Reconstruction and Development (EBRD).

A range of other instruments are available, such as LIFE, which is the financial instrument supporting the Community environmental policy. LIFE aims at co-financing actions both in nature conservation (LIFE-Nature) and in other fields of the environment (LIFE-Environment) as well as specific environmental actions outside the EU. LIFE-Nature must contribute to implementation of the Birds Directive (79/409) and the Habitats Directive (92/43) and, in particular, to the establishment of the European network of protected areas, known as 'Natura 2000', aimed at on-site management and conservation of the most valuable fauna and flora species and habitats in the EU. Some candidate countries have joined LIFE-Nature. In these countries, LIFE-Nature will have similar objectives, and be applied to sites of international importance. It shall also pave the way towards setting up Natura 2000 sites.

Participation into the Fifth Framework Programme on Research and Development is open to associated countries who are eligible for Community funding. This includes the Quality of Life and Management of Living Resources programme which is built around six specific key actions targeted at enhancing the quality of life of European citizens and improving the competitiveness of European industry. One of the key actions focuses on sustainable agriculture, fisheries and forestry, and integrated development of rural areas, including mountain areas.

In the framework of Agenda 2000, two new pre-accession instruments were added, namely ISPA, providing assistance for environment and infrastructure, and SAPARD, for agriculture and rural development. While ISPA is meant to support approximation in the field of the environment, SAPARD is for approximation regarding the agricultural *acquis*. Both contain measures concerned with the environment, but only under SAPARD is there support for the (agri-) environmental measures intended to benefit biodiversity. ISPA focuses almost exclusively on air, water and waste.



Czech Republic: Polnická, with small-scale agriculture maintaining ecological values (photo: Saxifraga/Ben Delbaere)

SAPARD is being introduced to support the CEECs in adapting their agricultural sector and adopting the rural development *acquis* as it relates to agriculture and rural development. Aid will be targeted at projects, which help the candidate countries prepare for accession, while at the same time familiarising the authorities and other relevant organisations with the methods used to implement Community support measures. Regulation 1268/1999 lists a wide range of measures for structural and rural development that will be eligible for assistance in the pre-accession period. Candidate countries will qualify for aid under the SAPARD measure between 2000 until each country's date of accession, after which time they will become eligible only for support from the FEOGA-rural development and the Structural Funds. The SAPARD Regulation includes a requirement that rural development plans contain a *prior appraisal*, showing the anticipated environmental impacts of the plan, as well as the economic and social impacts. Although the precise mechanism for carrying out an appraisal of environmental impacts is not specified, it is generally

accepted that the appropriate method is some form of environmental appraisal. The SAPARD instrument introduces both the programming approach to rural development and the principle of fully decentralised fund management responsibility, which is novel for the candidate countries. Programme implementation is the responsibility of the applicant country and/or regional authorities and is achieved through the establishment of a Monitoring Committee for each Rural Development Programme. The Monitoring Committee sets the ground rules for project selection, financing and monitoring against agreed financial and physical indicators and is responsible for the overall co-ordination of the financial and physical progress of the programme.

One reason why the Commission chose this approach was to give the applicant countries a unique opportunity to gain direct experience in applying mechanisms for the management of rural development programmes similar to those used in existing member states. The second reason was that each programme would contain a large number of projects, and therefore prior approval by the Commission would be impossible.

As the EC does not involve itself directly in the management of individual programmes, it is important to be sure that individual measures within a programme (under which actual projects are co-financed) include adequate criteria to enable the selection of projects that bring environmental as well as economic and social benefits. The definition of environmental eligibility criteria and the setting up of project appraisal systems incorporating environmental criteria are therefore important in ensuring that projects address environmental issues.

There are parallels between SAPARD and the EU Rural Development Regulation in so far as many rural development measures are covered by SAPARD. Both can support activities with benefits for nature conservation and the environment. They may also provide support for activities creating pressure on the environment. Suitable environmental appraisal of proposals is therefore important. Measures eligible for support under the two instruments are shown in Table 4. Table 5 offers an overview of measures under SAPARD, as a proportion of total budget per country.

Most CEECs have now prepared and presented one or more pilot agri-environment schemes to the European Commission. Pilot schemes were considered valuable, as it was clear that it would be useful to test the prescriptions on farms to see how they work in practice. Pilots are useful for testing the whole approach, as well as the objectives, farmers' response and administration issues. The rationale for embarking on pilot schemes was widely appreciated in CEECs, and was also reflected in the SAPARD Regulation, which provides EU assistance for pilot schemes. Nine countries will receive funding under SAPARD to implement these schemes (Table 4). In general, the percentage of SAPARD funds devoted to these pilots is relatively low and considerably less than the proportion of RDP funds spent on agri-environment measures in the member states.

In all CEECs the Ministry of Agriculture will be the lead Ministry for implementing agri-environment schemes. In some cases a particular department or unit within the Ministry will have responsibility for developing and implementing schemes, sometimes in partnership with other Ministries and agencies. Presently countries are establishing and putting into action the 'Paying Agencies', as required under EC legislation, as payments to farmers need to be made by an authorised body of this kind. In many countries, including Estonia and Hungary, regional Ministry Offices are to be established to act as the Paying Agency. It is a substantial administrative undertaking to set up an agency which meets the stringent criteria laid down by the EU. However, once in place, paying agencies will provide a convenient channel for operating agri-environment policies, as well as other schemes involving direct financial transfers to farmers.

The outlook for policies regarding Europe's agricultural land and associated wild-life is promising and the declining trend could be stopped or reversed, if adequate measures are put in place in the near future. Candidate countries could be on the threshold of implementing a range of well-targeted agri-environment programmes if adequate national funding and EU co-funding will become available. Not only are agri-environmental programmes, and the wider rural development programmes, part of a valuable tool for nature conservation, but also for the viability of the countryside as a whole.

At present it would appear that many projects funded by SAPARD would fall outside the criteria for implementing the Environmental Impact Assessment (EIA) process as required under EU-Directives, because of both the types and sizes of projects envisaged. It is important, however, that all projects address their sustainability and potential impacts. Existing experience in EU member states suggests that some type of environmental or sustainable development screening tool is urgently required, both for applicants and the competent authorities. It needs to be dual purpose, both to encourage applicants to consider the environmental impacts associated with their projects and also to assess the extent to which their project can be made more sustainable.

There are signs that the candidate countries are recognising this need but it is likely that further assistance will be required, for example guidance in the best means of making assessments. One option is to assess a group of projects in a specific area, but no legal administrative procedure is currently available. Alternatively, an environmental appraisal for each project can be carried out. Speed is essential if the contribution of SAPARD to sustainable rural development is to be optimised.

Table 4. Objective of the rural development policy under Regulation 1257/1999 and measures eligible for SAPARD assistance

The aims of rural development policy under Regulation 1257/1999	Measures eligible for SAPARD assistance under Regulation 1268/1999
The improvement of structures in agricultural holdings and structures for the processing and marketing of agricultural products	<ul style="list-style-type: none"> <li>♦ Investment in agricultural holdings</li> <li>♦ Improvements to methods for processing and marketing agriculture and fishery products</li> </ul>
	<ul style="list-style-type: none"> <li>♦ Farm relief services and farm management services</li> <li>♦ Setting up producer groups</li> <li>♦ Land improvement and reparation</li> <li>♦ Management of water resources for agriculture</li> </ul>
The conversion and reorientation of agricultural production potential, the introduction of new technologies and the improvement of product quality	<ul style="list-style-type: none"> <li>♦ Veterinary and plant health controls, food quality and consumer protection</li> </ul>
The encouragement of non-food production	
Sustainable forest development	<ul style="list-style-type: none"> <li>♦ Forestry and farm woodland projects, investment in private forest holdings, processing and marketing of forest products</li> </ul>
The diversification of activities with the aim of complementary or alternative activities	<ul style="list-style-type: none"> <li>♦ Diversifying economic activities and developing alternative sources of income</li> </ul>
The maintenance and reinforcement of a viable social fabric in rural areas	<ul style="list-style-type: none"> <li>♦ Village renewal and conservation of rural heritage</li> </ul>
The development of economic activities and the maintenance and creation of employment with the aim of ensuring a better exploitation of existing inherent potential	<ul style="list-style-type: none"> <li>♦ Improvement of infrastructure in rural areas</li> </ul>
The improvement of working and living conditions	
The maintenance and promotion of low-input farming systems	
The preservation and promotion of a high nature value and a sustainable agriculture respecting environmental requirements	<ul style="list-style-type: none"> <li>♦ Promotion of production methods that protect the environment and conserve rural heritage</li> </ul>
The removal of inequalities and the promotion of equal opportunities for men and women, in particular by supporting projects initiated and implemented by women.	
	<ul style="list-style-type: none"> <li>♦ Updating land registers</li> <li>♦ Vocational training</li> <li>♦ Technical assistance (studies, monitoring, information, publicity campaigns)</li> </ul>

Table 5. SAPARD measure as a proportion of the total budget per country (in % a)

SAPARD measure	BU	CZ	EE	HU	LI	LV	PL	RO	SI	SK
Investment in agricultural holdings	30.4	15.8	42.0	28.4	47.0	23.1	17.3	14.5	35.0	27.2
Improvement in processing and marketing of agriculture and fishery products	23.2	16.2	18.1	20.5	21.0	26.0	37.3	16.4	40.0	25.8
Improving the structures for veterinary and plant health controls, food quality and consumer protection		8.8						2.6		
Promotion of production methods that protect the environment and conserve rural heritage	2.4	2.9	1.4	4.2	1.0	4.5	1.9	2.5		3.5
Diversification of economic activities in rural areas and developing alternative sources of income	6.2	15.8	17.6	15.5	8.0	23.6	11.3	9.6	14.0	15.0
Farm relief services and farm management services										
Setting up producer groups	0.9			7.3				1.6		4.5
Village renewal and conservation of rural heritage	7.7	10.4	3.5	9.0						
Land improvement and re-parcelling		19.7				1.9				9.7
Updating land registers										
Improvement of vocational training	4.3	2.1	2.0	1.8	2.0		2.1	5.2		1.9
Improvement of infrastructure in rural areas	5.6	5.2	12.2	12	16.0	12.0	27.3	27.9	10.0	
Management of water resources for agriculture	5.4							2.7		
Forestry and farm woodland projects, investment in private forest holdings, processing and marketing of forest products	8.1		1.3		4.0	3.0		10.1		7.4
Technical assistance	5.8	1.0	1.9	1.0	2.0		2.7	4.9	1.0	3.1
Assistance form Article 7(4) Reg. 1268/99			2.0					2.0		
Sapard: annual indicative budget allocations (in Euro million, at constant 1999 prices)	52.12	22.06	12.14	38.06	29.83	21.85	168.7	150.6	6.34	18.29
a) SAPARD is only applicable to the ten CEECs.										

Table 6. Summary of proposed annual expenditure on agri-environment programmes under SAPARD

Country	Agri-environment SAPARD measure?	EU contribution (in thousand Euros)	SAPARD budget (%)	Area (in hectares)	Number of pilot areas	Expected date of implementation
Bulgaria	Yes	9,000	2.4	32,000	1	2001
Czech Rep.	Yes	4,584	2.9	5-20,000	5	2001
Estonia	Yes	1,210	1.4	?	3+	2003
Hungary	Yes	11,330	4.2	400,000	15	2001
Latvia	Yes 1)	6,970	4.5	43,000 3)	?	2001
Lithuania	Yes	2,124	1.0	4,700	2+	2002
Poland	Yes 2)	22,920	1.9	33,000	6	2001
Romania	Yes	26,571	2.5	36,000	7	2003
Slovakia	Yes	4,500	3.5	10,000	5	2002
Slovenia	No	-	-	-	-	-
CEECs		89,209	2.4	>578,700		

1) Includes 3 measures of the plan; 2) Includes afforestation of agricultural land; 3) Estimated.

The practice of EIA for development projects is now established in all CEEC. However, EIA of projects may take place too late in the planning process to avoid significant environmental damage where this is an unavoidable corollary of the objectives which gave rise to the project. In addition it will not address the opportunities to raise all environmental and sustainability opportunities at programme level. Nor can it take account of the cumulative impact of many projects. It is therefore widely accepted that the policies, plans and programmes that give rise to projects should themselves be the subject of environmental appraisal.

A summary of key EU environmental legislation and its relationship to typical SAPARD measures is shown in Table 7. This list is not intended as a comprehensive overview of all relevant legislation, but simply as an indication of its variety and extent. In reality, one or more directives may be relevant and will need to be taken into consideration, depending on the nature and location of proposed developments.

Table 7. Key EU environmental legislation and typical SAPARD interventions

SAPARD measures	Example of relevant environmental directives
Water supply - storage, distribution & treatment	<ul style="list-style-type: none"> <li>♦ EIA (85/37/EEC and 97/11/EEC)</li> <li>♦ Habitats (92/43/EEC) and Birds (79/409/EEC)</li> <li>♦ Drinking waters (80/778/EEC)</li> <li>♦ Nitrates (91/676/EEC)</li> </ul>
Wastewater collection & treatment	<ul style="list-style-type: none"> <li>♦ EIA (85/37/EEC and 97/11/EEC)</li> <li>♦ Birds (79/409/EEC) and Habitats (92/43/EEC)</li> <li>♦ Urban Wastewaters (91/271/EEC)</li> </ul>
Agri-environment measures	<ul style="list-style-type: none"> <li>♦ Agri-environment Regulation (2078/92), now transposed into the new Rural Development Regulation (1257/99)</li> <li>♦ Council Regulation (EC) 1266/1999 of 21 June 1999 on co-ordinating aid to the applicant countries in the frame work of the pre-accession strategy and amending Regulation (EEC) No 3906/89, Official Journal of the European Communities L 161/68 (26.6.1999)</li> <li>♦ Council Regulation (EC) 1268/1999 of 21 June 1999 on Community support for pre-accession measures for agriculture and rural development in the applicant countries of central and eastern Europe in the pre-accession period, Official Journal of the European Communities L161/87 (26.6.1999)</li> </ul>
Tourism development (accommodation, development of tourism facilities)	<ul style="list-style-type: none"> <li>♦ EIA (85/37/EEC and 97/11/EEC)</li> <li>♦ Habitats (92/43/EEC) and Birds (79/409/EEC)</li> </ul>
On farm investments (e.g. control of farmyard pollution)	<ul style="list-style-type: none"> <li>♦ Nitrates (91/676/EEC)</li> <li>♦ Dangerous Substances (67/548/EEC)</li> </ul>
Agri-tourism, SME development, farm diversification schemes	<ul style="list-style-type: none"> <li>♦ EIA (85/37/EEC and 97/11/EEC)</li> <li>♦ Habitats (92/43/EEC) and Birds (79/409/EEC)</li> <li>♦ IPPC (96/61/EEC)</li> </ul>
Land improvement/ reparation	<ul style="list-style-type: none"> <li>♦ EIA (85/37/EEC and 97/11/EEC)</li> <li>♦ Habitats (92/43/EEC) and Birds (79/409/EEC)</li> </ul>
Forestry	<ul style="list-style-type: none"> <li>♦ EIA (85/37/EEC and 97/11/EEC)</li> <li>♦ Habitats (92/43/EEC) and Birds (79/409/EEC)</li> </ul>
Aquaculture, development, afforestation, biomass	<ul style="list-style-type: none"> <li>♦ EIA (85/37/EEC and 97/11/EEC)</li> <li>♦ Habitats (92/43/EEC) and Birds (79/409/EEC)</li> </ul>

## 5. POLICY APPROACHES AND STRATEGIES

In order to meet both agricultural and nature conservation objectives, an integrated approach is required. This must be applied both at the farm level and within the administration where policies are developed. Enforcement and monitoring are also vital. While many policies are in the process of change and new measures are being adopted to conform to EU policies it is timely to review some of the policy options for assisting the integration of agriculture and nature conservation policy objectives.



Slovenia: Karst landscape in Notransjka Region with traditional hay making (photo: Peter Veen) © Peter Veen

First, it must be stressed that any new measures need to build on a foundation of effective sectoral policies. For example, there are fundamental requirements for market stability, farm incomes, animal health, food security and working infrastructure in agriculture. On the environmental (including nature conservation) side there is a need for adequate protection of habitats and species, a good network of protected areas, and other measures to protect the conservation resource.

Numerous measures could enhance the interaction between agricultural and nature conservation perspectives. They are mutually supportive and a combination of approaches could strengthen their achievement. Key factors are the following:

- ♦ The encouragement of ecologically sensitive forms of farming, inter alia through the development of suitable, preferably higher value, markets for the produce. This measure is important both for areas with High Nature Value (HNV) and for the wider countryside, in other words both for biodiversity and for overall environmental quality. In areas of high biodiversity special approaches for livestock farming are needed.
- ♦ Agri-environment programmes or payments for public goods, including forms of farm management which support nature conservation. Such programmes are being adopted in most countries, often with EU support under SAPARD.
- ♦ Other rural development measures, meant to strengthen the viability of the

countryside (see also Table 5 on SAPARD measures).

- ♦ Systematic environmental appraisal of projects and programmes to screen impacts and secure sustainable initiatives and investments.
- ♦ CAP measures, other than rural development (mentioned above) that influence both farm viability and environment, including biodiversity. Uncertainty remains however, on the type of measures that will apply within the CAP in the future.

Other instruments are also useful, including education and training for farmers in environmental and nature conservation issues, and the development of technical measures to ensure that adverse impacts of agriculture on the environment are minimised (such as the use of appropriate, well maintained machinery). Codes of Good Agricultural Practice may also contribute to nature conservation, even if they have no legal base. Multilateral assistance could also be sought for new projects, together with appropriate foreign direct investment, for example in the build up of markets for ecological production.

In each candidate country the specific circumstances and preferences of the government will play a central part in guiding the choice of the most useful and readily adopted measures. Particular attention is drawn to some options, which are summarised below.

### 5.1 Agri-environment schemes

These are particularly relevant in regions that require specific measures to manage biodiversity and water resources, and control soil erosion problems. Zonal, horizontal and combined programmes are possible. The governments of all EU member states are obliged to implement schemes which encourage environmentally sensitive farming within their Rural Development Plans. These schemes provide an opportunity to reward farmers for maintaining or introducing practices of value for nature conservation. These might include restrictions on the use of artificial fertili-



Bulgaria: Vitoscha mountains around Sofia (photo: Saxifraga/Atanas Grozdanov)

sers, agreement to postpone mowing dates on pasture to a time favourable for ground nesting birds or on the maintenance of small habitats on farms. Agreements with farmers are typically signed for a five-year period and are subject to certain rules laid down in the Rural Development Regulation 1257/1999. Schemes of this kind occupy the majority of the budget for Rural Development Plans in several EU countries. For instance the proportion is about 40% in the Netherlands, 60% in Austria and 66% in England.

The concept of support for countryside management is not totally new in CEECs. Several countries introduced relevant schemes such as Less Favoured Areas (LFAs) in the early 1990s. Assistance from the CAP budget at the rate of 75% is available to candidate countries under SAPARD for pilot agri-environmental measures. Most candidate countries are launching pilot schemes in the period 2001-2003 (see Table 6), and many countries are building on existing national initiatives. Prior to designing new schemes, some candidate countries carried out detailed studies of the approach in existing member states in order to draw up plans. Agri-environment and LFAs measures were among the agricultural policy instruments previously used by most candidate countries, with some LFA schemes commanding considerable resources. However, as these schemes were often on a limited scale, additional financial resources frequently were considered necessary to achieve the preservation of the traditional rural diversity in all its aspects. All applicant countries have opted to use funding under SAPARD as part of their preparations for implementation of Regulation 1257/1999 after accession. As a consequence of these preparations, many governments in the region are arguably better prepared for adapting to the agri-environment policy model than some member states were prior to 1992, as several had no previous experience of agri-environment measures (Baldock *et al.*, 2001).

The looming obligation to implement Regulation 1257/1999 upon accession provided a powerful incentive to CEECs to initiate agri-environment programmes. Impetus had also been given to CEECs as a result of real problems in the countryside. Land abandonment and the withdrawal of historic management have become a threat to farmland in CEE. Semi-natural grasslands of European importance in protected areas, such as along the Baltic Sea coast and in the White Carpathians, are being lost due to trends such as reduced grazing by sheep or cattle. An extrapolation of current trends in farming showed that, without intervention, a further concentration of agricultural production on the best soils and in the most productive herds is likely to occur, leading to an irreversible loss of high nature value farming systems.

## 5.2 Other rural development measures

The future of the agricultural sector is closely linked to a balanced development of rural areas, which account for around 80% of European territory. Alongside the market measures and elements of a competitive European agriculture, the varied needs of rural areas must also be recognised, together with the expectations of

modern society and environmental requirements. The new rural development policy, now the 'second pillar' of the CAP, is an important tool to achieve this European model of agriculture. It aims to put in place a consistent and lasting framework for guaranteeing the future of various functions of agriculture, including nature management of rural areas and promoting the maintenance and creation of employment. This 'European model of agriculture' focuses on the key features for agricultural development in the near future. In this context, emphasis is placed upon establishing an economic sector that is versatile, sustainable, competitive and dispersed throughout Europe. It must be capable of maintaining the countryside, conserving nature and making a key contribution to the vitality of rural life. In addition, it must respond to consumer concerns and demands regarding environmental protection, food quality and safety, and the safeguarding of animal welfare. The CAP (including its rural development section) is currently connected to concepts of the European model of agriculture, and future policies, in whatever form, will probably remain so.

The Rural Development Regulation offers a more integrated approach to rural development than its predecessors. In doing so, it has the potential to enhance benefits to be gained from the interaction between economic, social and environmental conditions.

Most countries have put forward a range of measures for funding under SAPARD, as shown in Table 5. Before the funds are committed in each country, certain stages have to be completed:

1. The SAPARD plan has to be adopted by the European Commission;
2. The multi-annual Financing Agreement must be agreed with the applicant country.

Before transferring the funds:

3. The SAPARD agencies (responsible for paying and implementing the Programmes) must be established and accredited in the applicant countries;
4. The annual Financial Memorandum has to be concluded.

### **5.3 Environmental appraisal and EU funding programmes**

In the member states the environmental dimension of funding programmes such as the Structural Funds has been strengthened considerably since 1993. Improvements continue, especially in the areas of prior appraisal and monitoring and evaluation of environmental impacts. However, the recent rural development programmes of the member states show that it is still extremely difficult to achieve a real synergy between environmental policies and rural development on the ground.

Environmental appraisal of agricultural and rural development plans is a tool, which can be beneficial at both the programme and the measure level when implementing instruments such as SAPARD. It is a process in which the environmental impli-

cations of policies, plans or projects are taken into account in decision making at the earliest opportunity. It could be an effective means of integrating environmental and sustainable development issues into national SAPARD programmes and could assist in promoting sustainable and durable rural development in the candidate countries. The approach helps to make transparent the very close relationship between the economic, social and environmental fabric of the rural economy. Maintenance and protection of these relationships is fundamental to the balanced development of agriculture. Environmental appraisal is based on a co-ordinated, collaborative approach to sustainable development which brings together national, regional and local authorities with local populations, NGOs and others whose support and involvement is vital.

The environmental appraisal process can be carried out in a 5-step process. Each proposed step is meant to facilitate the integration of environmental issues and opportunities to enhance the environment and sustainable rural development throughout the process of plan development.

- ♦ Step 1: the environmental baseline;
- ♦ Step 2: scoping objectives and priorities;
- ♦ Step 3: environmental appraisal of the draft plan;
- ♦ Step 4: integration of appraisal findings;
- ♦ Step 5: incorporating monitoring mechanisms.

Environmental appraisal offers an opportunity to revise plans or proposals, taking account of the environmental aspects and sustainability issues identified during the appraisal process. It is therefore essential that those involved in the process view it as iterative and that the process begins early and is not simply an afterthought or add on. New data, views or priorities may emerge as a result of the appraisal and analysis of the draft plan. This information should feed back into the draft plan to refine and optimise the objectives, priorities and measures.

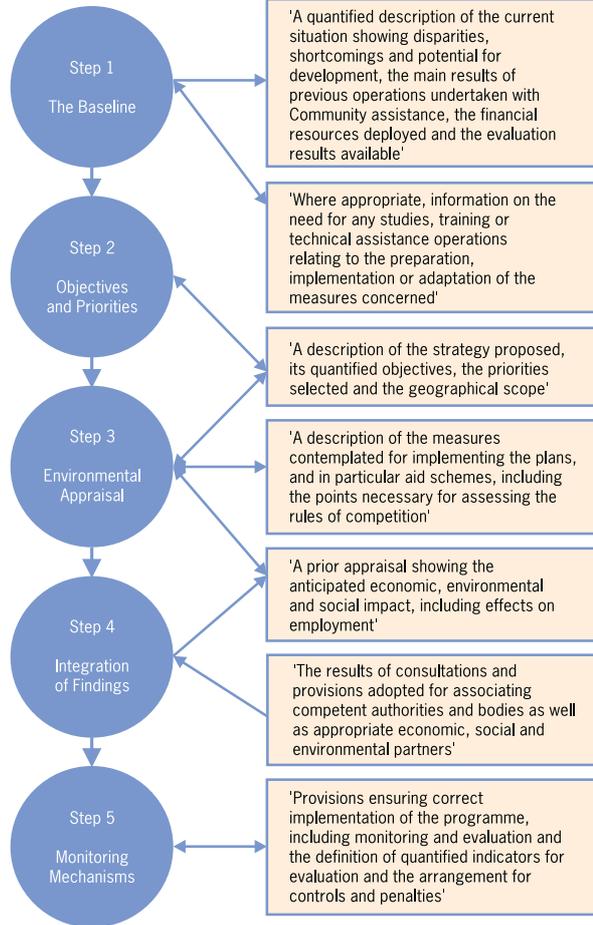
In carrying out environmental appraisals it is often useful to use environmental or sustainability criteria, which have been identified either on the basis of national environmental policy goals or themes or international sustainable development goals.

For example, sustainability criteria can be used as a framework within which wider environmental policy objectives and commitments can be considered in relation to the Plan's objectives and priorities.

Links between SAPARD and Environmental Appraisal

Steps in the Appraisal

SAPARD Requirements (Article 4a)



Hungary: Nagyván, steppe region important for birds (photo: Saxifraga/Atilla Molnar)

Box 1 sets out a range of illustrative sustainability criteria relating to sustainable development and rural development. These can be used to screen development objectives at either plan, but more appropriately at the measure level.

BOX 1. Sustainability criteria and links to SAPARD policy objectives

Key sustainability criteria	Examples of SAPARD priority sectors
1 Minimise use of non-renewable resources	Environmental friendly farming; support to processing industry
2 Use renewable resources within limits of capacity for regeneration	forestry, eco-tourism, water resources, agri-environment measures
3 Environmentally-sound use and management of hazardous/polluting substances and wastes	Support for agricultural holdings, water resources management
4 Conserve and enhance the status of wildlife, habitats and landscapes	protection of landscapes; biodiversity; agri-environment
5 Maintain and improve the quality of soils and water resources	Agri-environment; reduction of erosion; afforestation
6 Maintain and improve the quality of historic and cultural resources	Agriculture, tourism, environment
7 Maintain and improve local environmental quality	Rehabilitation of rural villages, water resources
8 Protection of the atmosphere and reduction of GHGs	Improvement of agricultural holdings; investments in processing industry
9 Develop environmental awareness, education and training	Agriculture; agri-environment
10 Promote public participation in decisions involving sustainable development	All

Flexibility in the plan development process will assist in ensuring stakeholders' views and new information is fed back into the plan. Flexibility can be enhanced in the following ways:

- ♦ anticipating possible outcomes from consultation and public participation;
- ♦ communicating frequently, and at an early stage, with interested agencies and groups, listening to feedback and clearly explaining the appraisal process.

Although it is not always easy to prove a causal link between the output of a measure and a change in environmental quality, it is advisable to incorporate environmental 'outcome' objectives at measure level in the programmes. Therefore it is important to link project selection-criteria to environmental indicators. If this link is



Poland: Chocholow; traditional type of wooden house (photo: Saxifraga/Mihaly Vegh)

weak, this will have a negative effect on the ability to monitor and report on the impacts of funding actions on environmental quality.

The practice of environmental impact assessment (EIA) for development projects is now established in all candidate countries. However, EIA of projects may take place too late in the planning process to avoid significant environmental damage where this is an unavoidable corollary of the policy objectives which gave rise to the project. In addition it will not address the opportunities to raise all environmental and sustainability opportunities at programme level. It also cannot take account of the cumulative impact of many projects. *It is therefore widely accepted that the policies, plans and programmes that give rise to projects should therefore be the subject of environmental appraisal.*

It is therefore widely accepted that the policies, plans and programmes that give rise to projects should themselves be the subject of environmental appraisal. The method presented below can be helpful in this way and has been applied to projects in the candidate countries of the types to be financed by SAPARD.

#### 5.4 Promoting sustainable agriculture and organic farming

Beyond individual measures, there is a wider debate on the strategies to be adopted to establish sustainable agriculture. This can be illustrated by some PHARE pilot projects on sustainable agriculture undertaken in Bulgaria, Hungary and Romania. The main objective of these efforts was to assess the economic viability and environmental effects of conversion to sustainable agriculture in the three countries, and to identify strategies for reaching this achievement. Some scenarios were designed for these three countries. A 'conventional' scenario was based on continuation of current policies and trends. In comparison, a 'sustainable' scenario was based on environmentally improved practices and resulting in different national shares of three farming styles i.e. high input, low input (but improved beyond the survival level) and organic. The assessment indicated that the sustainable scenario, with less than 30% of improved low-input agriculture and



Hungary: Pond in Petesmalom (photo: Saxifraga/Jan van der Straaten)

organic agriculture, would result in gross national agricultural production values comparable to those obtained by the conventional scenario. The sustainable scenario exhibits larger macro-economic benefits when the external (environmental) costs accompanying agricultural production are internalised.

Although this exercise offers only an indicative value based on a number of assumptions, and while conventional agriculture is also moving towards more sustainable practices, it suggests the merits of a *three-track* approach, comprising low-input agriculture, organic agriculture and other forms of sustainable agriculture may be appropriate. This will be attractive both from an economic and an environmental point of view. The three-track approach consists of the parallel support of three routes, each to achieve higher levels of sustainability. It implies measures, which improve the environmental and economic performance of the current low-input agriculture, promote the further development of pioneering organic agriculture, and adapt the remaining high-external-input regime by means of stimulating integrated agriculture. Compliance with obligatory environmental standards and Codes of Agricultural Practice, and the introduction of agri-environment measures (on top of obligatory standards, especially in biodiversity-rich areas) as appropriate would be required as part of this approach.

Sustainable farming systems, including organic production could exploit growing market opportunities over the next decades, as demand for these products appears to be expanding. However, the market for organic produce would also need good infrastructures to manage supply and demand, and generally require sufficient demand by consumers prepared to pay the additional costs of food. Organic exports from CEECs could be promoted by developing quality control, certification systems, improved processing and effective market strategies. While many farms reliant on low levels of inputs could convert to organic production relatively easily, it is important to consider other aspects of the supply chain in addition to farming itself. Some of the improvements identified in research work are quite specific, for example the need for better market information, including regularly updated supply data. Greater working capital at farm level in food processing industries,

slaughterhouses and elsewhere in the food supply chain is another priority. The higher standards demanded for the EU market often cannot be met without new investment. Several sources of finance are available, including SAPARD, multilateral assistance and foreign direct investment, already underway in some countries. The benefits of a sustained ecologically sensitive farming system should be felt in terms of farm income and value added in the supply chain as well as in higher nature conservation standards.

One of the major challenges is to guide the conversion of enterprises to economically viable and market-oriented entities. For transition countries this challenge may be pressing since the time to prepare oneself for competition on the EU market is short and often the ambition to meet the EU standards is high. Most pressing however, among the basic needs of companies are the need for finance, modern technology and management development. Box 2 presents an example - the challenge of developing the organic beef supply in the Czech Republic.

**BOX 2. Example of organic beef production in the Czech Republic**

Background	Several retailers entered the Czech market during the early 1990s. After a period of limited growth, they rapidly expanded their efforts. These companies provide a broad assortment of products, including high quality products.
Present situation	The new players on the market have quickly obtained large market shares. Currently the food market is dominated by large foreign based retailers, who introduce new standards for food quality, which affects the upstream parts of the supply chain. With their market power these new players now seek close co-operation with the processing industry to raise quality standards to prepare for compliance with the EU standards after accession.
Situation outline	Redesigning the supply chain offers opportunities for organic products, especially if they can be marketed as 'high quality'. The company prefers high quality organic beef to conventional beef. The domestic supply of organic beef (both quality and quantity) is not yet sufficient. A project is carried out to identify the needs at the individual stages of the supply chain.
Problems	Financial resources are needed to expand the working capital of farms and slaughterhouses and comply with quality standards as formulated by EU and foreign retailers. Lack of working capital hinders farmers from buying cattle, proper feed or even seed, and drives them towards less desirable (and less profitable) production systems. In terms of management development there is a need to assist entrepreneurs to become more market oriented.
Opportunities	The country has a good starting position to further develop the organic beef supply chain. Like most other CEECs, cattle numbers have substantially dropped since the early 1990s, and inputs of mineral fertilizers decreased drastically. In many rural areas in the country, these two developments combined with some others have produced an animal husbandry system that could relatively smoothly convert to organic production.
Conclusion	A powerful coalition with retailers may be useful for the sustainable preservation of rural areas.

The agro-food chain in most CEECs requires financial resources to extend the working capital and for necessary investments to modernise hardware (capital goods) as well software (i.e. knowledge). More often farms and companies in the sector have problems to finding sufficient finance to sustain the business.

Experience with development projects indicates that financial, technological and managerial support is most effective when given in a balanced mix. This mix unfortunately does not necessarily correspond to the usual institutional approach which tends to supply either loans/subsidies or technical assistance or management development support.

### 5.5 Capacity and institution building

A greater use of agri-environment programmes, to support farming in high nature value areas, offers opportunities for both rural development and for benefiting the rural environment. Training, extension and R&D programmes could be further developed as part of capacity building for rural development and the preparation for implementing agri-environmental programmes. The promotion of research, education and training in sustainable farming practices offers good opportunities to adopt sustainable farming practices. In addition, institution building could also guide farmers in their attempts to change farming practices.

Co-operation between the agricultural sector and public authorities at different levels could also contribute to enhancing the promotion of viable and sustainable farming practices and strategies for its achievement.



Poland: Valley of Bierbza (photo: Saxifraga/Mihaly Vegh)

## 6. CONCLUDING REMARKS

Some concluding remarks can be derived from the report. The Report of the High Level Conferences on EU Enlargement: The Relation between Agriculture and Nature Management is included in the beginning of this report.

1. Many species of plants and animals have become dependent for their survival on appropriately managed farmland. This has occurred in the course of centuries due to human interference. Many of the areas richest in biodiversity have declined again in value or disappeared since 1900 mainly due to the intensification of agriculture while, more recently, abandonment has also become a threat. Abandonment has already brought major changes in Central and Eastern Europe in the last decade. Both the economic viability of agriculture and the use of agri-environmental programmes are essential for areas with high biodiversity, like semi-natural grasslands and important bird areas, in order to prevent both abandonment and inadequate management.
2. There is a major nature conservation resource on farmland in the candidate countries, concentrated in particular in semi-natural grasslands and areas of special importance to breeding or migratory birds. The areas requiring special management include an estimated area of semi-natural grasslands in the 10 CEECs of about 7.05 million hectares (12.3% of agricultural land) and further areas of importance for birds. In Turkey there are about 27.7 million ha of permanent grasslands and in Cyprus 5,000 hectares have been identified.
3. At present there are two main threats to the survival of grasslands of high natural value in the CEECs: abandonment and intensification. Abandonment of grasslands has become a severe problem due to a sharp reduction in cattle numbers, by around 50% in the 1990s. In the future, intensification of production may lead to a loss of biodiversity again, as it has in the past.
4. Low-input agriculture is currently the dominant farming style in the majority of the candidate countries; there is scope for making it even more environment friendly and economically more viable. A variety of policy options is available, a number of which is described in this report.
5. Agri-environmental programmes in high nature value areas offer important opportunities for both biodiversity and farmers, and are likely to be the best tool to reverse the decline in biodiversity in the short and medium term. Following accession, larger funding sources than currently provided under SAPARD (pilots) are likely to become available under the EU rural development policies.
6. Environmental assessment is important to ensure that the implications of projects and programmes in rural areas are taken into account at the earliest opportunity.
7. Evidence from some candidate countries and EU member states suggests that improved low-external input practices and organic farming deserve a serious place alongside conventional agriculture. These farming styles can generate wider economic benefits, as well as reducing degradation of the environment. A three-track policy could involve improving the environmental and economic performance of the existing low-input agriculture, 'greening' the high-input agriculture and stimulating a

more widespread uptake of organic agriculture, inter alia through the provision of sufficient infrastructure to manage supply and demand.

8. A mix of policy instruments and market initiatives would be required to facilitate the implementation of the three-track policy. Training, extension, awareness building and R&D programmes could be developed further as part of capacity building for rural development and agri-environment programmes. The provision of payments for the conversion into organic agriculture would attract more farmers to shift to this form of sustainable agriculture. Environmental standards can be applied by a range of policy measures.
9. The quality of the physical environment is not only influenced by agricultural, environmental and agri-environmental policies, but also by the strategies farmers apply in their practices (conventional, low-input, organic or integrated).
10. The future of biodiversity in Europe depends on the perspectives adopted within farming (viability), especially in areas of high nature value, and the type of practices ('the nature of farming') applied. Market perspectives and agricultural policy measures influence the viability of farming as well. The type of farming adopted in practice can be influenced by management agreements, agreed within agri-environmental programmes, as part of the EU Rural Development Policy.
11. In the forthcoming EU enlargement negotiations on agriculture, discussions on issues such as the nature of livestock policies and rural development measures have important agricultural and environmental implications. The environmental consequences of different options merit due attention.

## REFERENCES

Baldock, D. (1997) Seminar on nature conservation and agriculture in Central and Eastern Europe: A background paper. In: K. Mitchell, L. Hart, D. Baldock and K. Partridge (Eds) *Agriculture and Nature Conservation in Central and Eastern European Countries: Proceedings of a Seminar held at Debe, Poland*. May 1996. London, Institute for European Environmental Policy (IEEP), pp. 8-21.

Baldock, D., H. Bennett and G. Verschuur, with J-E. Petersen, A. Surján, M. Lankester and P. Veen (2001). Agri-environment policy development in Central and Eastern Europe: Synthesis Report of a multi-partner project. Wommels, Avalon, The Netherlands.

Baris, Y. (1991). Conservation problems of steppic avifauna in Turkey. In: P.D. Goriup, L.A. Batten and J.A. Norton (Eds), *The conservation of lowland dry grassland birds in Europe, Proceedings of an international seminar*. 20-22 March 1991, Reading, pp. 91-96.

Byfield, A. (1998). The important Plant Areas of Turkey: A Progress Report. In: H. Syngé and J. Akeroyd (Eds), *Planta Europa; Proceedings of the Second European Conference on the Conservation of Wild Plants*. 9-14 June 1998, Uppsala, pp. 66-71.

European Commission (1998a). *Agricultural situation and prospects in the Central and Eastern European Countries*. Ten volumes. Brussels, Commission of the European Communities.

European Commission (1998b). *A partnership for integration: A strategy for integrating environment into EU policies*. Brussels, Commission of the European Communities, COM (98) 333.

European Commission (1999). *Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions, Directions towards sustainable agriculture*. Brussels, Commission of the European Communities, COM(1999) 22 final.

EEA (1999). *Environment in the European Union at the turn of the century*. Summary report. Copenhagen, European Environment Agency.

Geister, I. (1995). *Ornitoloski Atlas Slovenije*. DZS, Ljubljana, Slovenia.

Heath, M.F. and M.I. Evans (2000). *Important Bird Areas in Europe*. Two volumes. Birdlife, UK.

Krogulec, J. (Ed.) (1998). *Ptaki lak i mokradel Polski*. IUCN, Warsaw, Poland.

Lowe, P. and F. Brouwer (2000). Agenda 2000: A wasted opportunity? In: F. Brouwer and P. Lowe (Eds) *CAP regimes and the European Countryside: Prospects for Integration between Agricultural, Regional and Environmental Policies*. Wallingford, CABI Publishing, pp. 321-334.

Nagy, Sz. (1998). *Fontos madárelőhelyek Magyarországon*. MME, Budapest, Hungary.

Rychnovská, M., D. Blazková and F. Hrabě (1994). Conservation and development of floristically diverse grasslands in central Europe. In: L. 't Mannetje and J. Frame (Eds) *Grassland and Society. Proceedings of the 15th General Meeting of the European Grassland Federation*. Wageningen, pp. 266-277.

Stastny, K., V. Bejček and K. Hudec (1996). *Atlas hnízdního rozšíření ptáku v České republice 1985-1989*. Czech Republic.

Tucker, G.M. and M.I. Evans (Eds) (1997). *Habitats for Birds in Europe. A conservation Strategy for the wider Environment*. Birdlife, UK. Birdlife Conservation Series No. 6.

Van Swaay, C. and M. Warren (1999). *Red Data Book of European Butterflies (Rhopalocera)*. Strasbourg, Council of Europe, Nature and Environment, Vol. 99.

Veen, P.H. and J. Seffer (Eds) (1999). *Proceedings of the Workshop National Grassland Inventory*, KNNV/Daphne, Bratislava, Slovakia.