

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.



Central and Eastern European Sustainable Agriculture

Institutional Change in Central and Eastern European Agriculture and Environment

VOLUME 1

Maintaining High Nature Value Landscapes in an Enlarged Europe: A Comparative Analysis of the Czech Republic, Hungary and Slovenia





Food and Agriculture Organization of the United Nations Humboldt University of Berlin

Institutional Change in Central and Eastern European Agriculture and Environment

Franz Gatzweiler and Konrad Hagedorn (eds.)

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The CEESA (Central and Eastern European Sustainable Agriculture) Project, QLK5–1999–01611, is funded under the EU 5th Framework Programme. Responsibility for the information and views in this publication lies entirely with the editors and authors.

For inquiries, please contact:

Franz Gatzweiler and Renate Judis Humboldt University of Berlin Institute of Agricultural Economics and Social Science Chair of Resource Economics Luisenstr. 56, D-10099 Berlin

Tel: +49.(0)30-2093 6305 Fax: +49.(0)30-2093 6497

http://www.ceesa.de

E-mail: franz.gatzweiler@agrar.hu-berlin.de renate.judis@agrar.hu-berlin.de

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior permission of the copyright owner. Applications for such permission, with a statement of the purpose and extent of the reproduction, should be addressed to the Director, Information Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, 00100 Rome, Italy

CEESA/FAO Series

Institutional Change in Central and Eastern European Agriculture and Environment

- 1 Maintaining High Nature Value Landscapes in an Enlarged Europe: A Comparative Analysis of the Czech Republic, Hungary and Slovenia
- 2 The Challenge of the Nitrate Directive to Acceding Countries: A Comparative Analysis of Poland, Lithuania and Slovakia
- 3 Irrigation and Water Regulation Systems in Transition: The Case of Bulgaria in Comparison with Latvia, East Germany and Romania
- 4 Institutional Change in Central and Eastern European Agriculture and Environment: Synopsis of the CEESA Project

Series editors: Franz Gatzweiler and Konrad Hagedorn

MAINTAINING HIGH NATURE VALUE LANDSCAPES IN AN ENLARGED EUROPE: A COMPARATIVE ANALYSIS OF THE CZECH REPUBLIC, HUNGARY AND SLOVENIA

By Jaroslav Prazan Thomas Ratinger Veronika Krumalova Philip Lowe Anett Zellei

With contributions from Andrej Udovc and Katalin Balázs

PREFACE

The work for this study was conducted as part of the Project on Sustainable Agricultural Development in the Central and Eastern European Countries (CEESA) funded under the EU 5th Framework Programme. The Project analyzed the context and prospects for sustainable agricultural development in twelve Central and Eastern European Countries (CEECs): Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia and Ukraine. The research group was composed of researchers from universities and research institutes from these CEECs, as well as from the Humboldt University of Berlin, University of Helsinki, Wageningen University, University of Newcastle upon Tyne and the FAO Sub–Regional Office for Central and Eastern Europe, Budapest.

The CEESA Project explored how the requirements of environmental protection and nature conservation have been taken into account during both the transformation of the political and economic institutions of the CEEC agricultural sectors and the preparation for EU accession. Local case studies were conducted in each of the above—mentioned CEECs. The findings were collected and subjected to detailed scrutiny and discussion at the CEESA Policy Learning Workshops (PLWs), which were field—based workshops that took place in the Czech Republic, Bulgaria and Poland. This volume presents the results of the Czech workshop; the Polish and Bulgarian workshops are described in volumes 2 and 3, respectively.

The CEESA PLWs helped advance the creation of a pan—European research community through the exchange of knowledge and by strengthening research partnerships and networks. We are confident that the results of the three CEESA PLWs will contribute to the understanding and solving of problems that are at the interface of agriculture and the environment. We are certain that this report will find an interested readership in all related fields.

Prof. Dr. Konrad Hagedorn Dr. Franz W. Gatzweiler Dr. Stjepan Tanic

Humboldt University of Berlin

FAO SEUR

ACKNOWLEDGEMENTS

The authors would like to thank all the researchers who prepared the country reports for the comparative analysis, as well as the participants of the Policy Learning Workshop. We extend our thanks to everyone who has assisted with and contributed to this document.

Katalin Balázs, Hungary

Ana Barbic, Slovenia

Mihály Bodnár, Hungary

Katerina Brandova, Czech Republic

Terry Carroll, United Kingdom

Bohumil Fiser, Czech Republic

Franz Gatzweiler, Germany

Olavi Hiiemäe, Estonia

Clunie Keenleyside, United Kingdom

Jan-Erik Petersen, Denmark

László Podmaniczky, Hungary

Alois Posch, Austria

Gábor Szabó, Hungary

Sille Teiter, Estonia

Andrej Udovc, Slovenia

CONTENTS

	Pref	ace
	Ack	nowledgements
1	Intr	oduction
	1.1	Idea and Methodology of the Policy Learning Workshops
	1.2	Analysing the Topic of Extensive Farming, Landscape Conservation and European Accession
2		cription of the Czech Landscape Conservation Case: White Carpathians
	2.1	Background
	2.2	Policy, Legislation and Governance Structure
	2.3	Attitudes Regarding the Relationship Between Conservation and Farming 11
3		nparison of Landscape Management in Marginal Areas e Czech Republic, Hungary and Slovenia
	3.1	Evolution of the Problem Definition
	3.2	Farming Structure
	3.3	Policy Tools and Their Implementation
	3.4	Attitudes of Actors and Their Cooperation
	3.5	Further Development Opportunities
4	Poli	cy Options for the White Carpathians
	4.1	The Prospective Policy Context with EU Accession
	4.2	Options for the White Carpathians
	4.3	Policy Option A: The Landscape Protection Authority Takes Over
	4.4	Policy Option B: Integrated Agri–environmental Policies Based on Private Land Ownership
	4.5	Policy Option C: Agri–environmental Policies Through Local Partnerships 28
	4.6	The Policy Options and EU Policy Frameworks

5		ler Issues for EU Agri–environmental Policies Enlargement
	5.1	Uncertainty Surrounding Ownership and Control of the Land
	5.2	The Difficulties of Integrating Measures and Policies for Agricultural Support and Environmental Protection
	5.3	The Limited Involvement of Local People in Determining how Marginal Areas Should be Managed and Developed
	List	of Participants
	Refe	erences

1 INTRODUCTION

1.1 Idea and Methodology of the Policy Learning Workshops

The CEESA Project brought together researchers from Central, Eastern and Western Europe. Their specific aim was to explore how the requirements of sustainability have been incorporated in the restructuring of agriculture in the CEECs during their transition to a market economy and in their preparation for EU accession. For many of the involved researchers it was their first opportunity to participate in such a pan–European research Project. The researchers came from different research backgrounds and had worked in diverse theoretical, socio–economic and organizational contexts.

Although the Project offered a common framework for analysis, different conceptions of the participants led to different interpretations. It became obvious that a common understanding of the analytical framework required intensive discourse, which could not be achieved in a short period of time. Similarly, the project participants had to cope with empirical heterogeneity. Recommendations for the restructuring of various aspects of CEE agriculture (such as irrigation, landscape management or water protection) would remain meaningless for Eastern and Western European policy—makers if the context of transition were not sufficiently appreciated. Such a context includes historical, ecological, economic, political and social aspects.

These considerations called for an innovative approach to the exchange and communication of knowledge. As a result, the idea of carrying out the Policy Learning Workshops (PLWs) was brought into the CEESA Project.

The processes of transition, accession and enlargement should ultimately actualize the concept of "Unity in Diversity". Creating a common basis will hardly be achieved if the systems and methods of the West are simply transplanted to and copied by the East. Especially in the field of environmentally sound agriculture the West cannot provide the ultimate, ready—made solutions which the East could simply implement.

What is needed for sustainability, therefore, is a twofold development. This development would draw on successful Western and Eastern examples and expertise and would fully account for specific characteristics and the diverse circumstances of Eastern European agriculture and rural areas. On the one hand, this development involves building some basic institutions that resemble those in Western Europe. On the other hand, it calls for innovative solutions that are well adapted to local circumstances and created with the participation of all affected actors. In this respect a pressing need remains for mutual learning among scientists and experts from Western and Eastern European countries.

As previously mentioned, these insights led to the idea of carrying out the PLWs as part of the CEESA research process. In a microcosm, the CEESA Project experienced the transnational exchange and mutual learning that ideally characterizes the overall process of European integration. The PLWs were carried out after a one—year research period during which the case—study authors had prepared detailed background information on the topic under investigation. Each of the PLWs was preceded by a 4—day study tour, which brought together the various CEESA teams that had investigated similar topics. These tours allowed the teams (researching, for example, irrigation, landscape management or water protection) to conduct joint fieldwork 'on the spot' in relation to the host countrys' case study. The results of the study tour were subsequently presented to the PLW convened at the same location some time later.

Each PLW involved a detailed briefing of the case study in question, a field trip to observe the problem on the ground and to meet involved actors, and the preparation of comparative information about similar problems in other CEECs. The participants of the PLWs were asked to deliberate on specific solutions to the problem they examined as well as general lessons for national and EU policies.

1.2 Analysing the Topic of Extensive Farming, Landscape Conservation and European Accession

The Central and Eastern European Countries (CEECs) include large areas of extensive farming and high landscape and biodiversity value. How have these areas been affected by the momentous political and economic changes of recent years? How are the policies and institutions that relate to these areas being prepared for the challenges of EU accession? Within the CEESA Project these questions have been addressed through local case studies on comparable agri—environmental problems in different countries (for the topic of extensive farming and biodiversity conservation: namely, the Czech Republic, Hungary and Slovenia). The intention was to understand in some detail what was happening 'on the ground'. Subsequently, the comparison of local case studies has allowed us to distinguish between the common and specific features of the country case—study problems. Thus we are able to begin identifying underlying patterns of agri—environmental change.

2 DESCRIPTION OF THE CZECH LANDSCAPE CONSERVATION CASE: THE WHITE CARPATHIANS

The specific case study on which the report initially focuses is about sustainable land management in the White Carpathians in the Czech Republic. The area is protected for its landscape and biodiversity values. Much of the land has poor soils. Historically, the low–intensity farming that took place maintained the richness of wildlife and the diversity of the landscape. Collectivization in the 1950s and the subsequent intensification of agriculture threatened the area's natural values. In order to curb some of these adverse effects a Protected Landscape Area (PLA) was designated in the White Carpathians in 1980.

The overthrowing of the socialist regime in 1989 and the subsequent political and economic changes have led to both a sharp economic decline and major structural adjustments in agriculture (Schlüter, 2001). While these occurrences have resulted in reduced pressures on the natural environment, they have also led to the extensive withdrawal of land—management practices that are essential to the maintenance of landscape and biodiversity. The available nature—protection policy measures and approaches, however, were not appropriate to these new threats. Rather, they were blunt controls over the intensity of production.



New legislation and policy introduced in 1997 recognized the need to compensate for restrictions on agricultural practices and have provided a basis for the gradual introduction of incentives to cultivate marginal land. Three obstacles remain for the long—term sustainability of land management in the area:

- the division and uncertainty surrounding property rights to the land;
- the difficulties in integrating measures and policies for agricultural support and environment protection;
- the limited involvement of local people in determining how the area should be managed and developed.

The case study has wider relevance beyond the White Carpathians. Land abandonment or neglect poses a threat to the maintenance of biodiversity and landscapes in marginal areas across many parts of Central and Eastern Europe.

2.1 Background

The White Carpathians are a mountainous area in East Moravia on the border with Slovakia, stretching over a length of 70 km. The area has a population of approximately 8 000 people, living mainly in small, dispersed villages. It was settled for agricultural purposes in the $16^{\rm th}$ and $17^{\rm th}$ centuries, when much of the forests were cut or burned down. The poor soil ensured a pastoral agriculture of extensive cattle and sheep grazing with small domestic plots cultivated for cereals and potatoes. Traditional farming – unmechanized and relying on low levels of inputs – remained characteristic until the middle of the $20^{\rm th}$ century.

After collectivization, in the period between the 1950s and the 1980s, there was an increase in the concentration of cattle for both dairy and beef production, including a switch to housing the animals throughout the year. Artificial fertilizers were applied to the grasslands, and the grass and hay were mechanically cut. Collectivization largely left the small domestic plots and orchards around the farmsteads untouched. The Protected Landscape Area designation, imposed in 1980, was intended to safeguard biodiversity from these changes. The area protected extends to 71 500 hectares, just over half of which is agricultural land. Different degrees of legal protection apply across the PLA, with particular patches of land assigned to one of four protection zones. The zones with the strongest protection – including restrictions on fertilizer and pesticide use as well as prescriptions on certain aspects of land management – cover 28 300 hectares, about a third of which is agricultural land. The most valuable natural sites are preserved in 53 reserves, which have been recognized as a UNESCO Biosphere Reserve since 1996.

Since 1989, the recession in the dairy and beef markets has resulted in reduced concentrations of cattle. On the one hand, this has allowed a beneficial extension of production, and animals have started to reappear on pastures. On the other hand, the

less accessible meadows and those with restrictions on fertilizer application now have little value to the farmers.

The area of agricultural land not being used has expanded, reaching 5 percent by the late 1990s. Land reforms enacted in 1991 returned titles to land to the original (pre–1948) owners and their heirs. Several problems continue to beset the delineation of property rights, including the prevalence of unidentified/inactive owners and the uncertain subdivision of property (because of inheritance issues). The steady depopulation of the region over a long period of time has exacerbated these problems. The heirs of the original owners may now live far away, may be unaware of their property or may have such a small or uncertain stake that they may not have sufficient incentive to pursue their claims.

Table 1: Agriculture in the White Carpathians (1999)

Land Use	Share (%)
Cash crops (mainly cereals)	20
Fodder crops	8
Meadows	46
Pastures	26

Source: Prazan et al. (2002)

The significance of the landscape and biodiversity of the White Carpathians is recognized nationally and internationally. The meadows are among the most species—rich plant associations in Europe and include many protected species. The mosaic of meadow, pasture and forests and the varied topography produce a variety of habitats, including some plant life adapted to dry conditions and others to humid conditions. This biodiversity can be diminished in a short period of time by such practices as fertilizing or mulching, or if the land becomes idle. If the land cannot be grazed, mowing is an alternative. Stopping such management in a few years leads to scrubby growth, which results in a loss of much of the floral diversity and the reduction of the open pasture.

Table 2: Farm Structure in the White Carpathians (1999)

Farm Size (ha)	Share in the Number of Farms (%)	Share in the Area (%)
Above 500	0.2	48
10-500	0.8	16
Less than 10	99.0	32

Source: Prazan et al. (2002)

Decollectivization and land restitution have left a dual farming structure (see Table 2). A few large farms, each with over 500 ha, occupy (but do not own) almost half of the agricultural land. Meanwhile 99 percent of holdings are under 10 ha and together account for about a third of the agricultural area. The large number of private holdings reflects the fact that this region of the country was only partly collectivized, as the land was marginal and not productive enough for the cooperatives and state farms to cultivate. Most holdings (79 percent) are household plots of less than 2 ha. The household plots and smallholdings are mainly farmed for direct consumption and to supplement other household income.



The small— and medium—sized commercial farms are run by people with additional income or pensions who are keen to re—establish their family farms. Survey evidence suggests that these two groups — the smallholders and the small— and medium—scale farmers — are deeply committed to the landscape. In contrast, the large commercial farms, which are mainly successors of the former collective farming enterprises, are profit—oriented and attuned to changes in market or policy incentives. They usually have land outside the protected zones and even outside of the area altogether. Typically their businesses are differentiated into intensive food and fibre production and extensive land management. They do employ local labour, but at much lower levels than in the past.

2.2 Policy, Legislation and Governance Structure

A strict legislative framework, at least on paper, exists for the protection and management of land. The Law on the Protection of Agricultural Land (1992) obliges the owner or occupiers to use "proper" (i.e. non–polluting) farming practices to maintain or improve soil quality. The owners or occupiers are also obliged not to change land use (arable, permanent grassland, etc.) without the approval of the appropriate authority. In Protected Landscape Areas (PLAs) all land and all activities affecting nature are subject to the legal control (Environmental Law, 1992) of the local Landscape Protection Authority. The legislation allows for both direct regulation and the use of contracts to preserve landscape and biodiversity. The instruments are specified in the Management Plan, which the Landscape Protection Authority is obliged to prepare.

The direct regulations in the White Carpathians PLA are differentiated between the four zones. There are constraints on the application of fertilizers and pesticides in zones 1 and 2, as well as restrictions on land use (e.g. meadows cannot be converted into arable land) and development in all four zones. Compliance with these constraints is enforced by the Landscape Protection Authority. A requirement to manage grassland is not explicitly mentioned in the legislation and would in any case be difficult to enforce. Contracting is used for the special management of the most valuable meadows or for covering the costs of specific environmental enhancements. The original legislation did not provide for compensation for the restrictions imposed on PLAs. However, after the problems that have arisen because of idle and abandoned land in PLAs, subsequent agricultural legislation (Agricultural Law, 1997) enables compensation for regulatory restrictions imposed on PLAs.

With the expansion of conservation requirements for farmers, the competencies and range of tasks of the Landscape Protection Authority have increased significantly since 1992. It has had to change its character, from being largely a scientific organization to a more administrative and executive one. The Landscape Protection Authority prepares the Management Plan to guide development, land—use change and land management practices in the area. The exact status of the Management Plan and how binding it is on others is not entirely clear. It does seem that the legislature conceived of the Plan as a type of master plan for landscape and biodiversity. However, it tends to be used instead as an internal planning document of the Landscape Protection Authority, which provides guidelines for its officers.

Instead of an organization to sanction proper or improper practices, the Landscape Protection Authority sees its role as an educator persistently trying to alter the outlook of agents acting in the White Carpathians. This is done through the dissemination of general information through the local press and radio and, in cooperation with non–governmental organizations (NGOs), through direct communication with farmers, municipal leaders and other agents. The Landscape Protection Authority is quite zealous in this instructional – even proselytizing – role. For example, it seeks

to persuade farmers that applying fertilizers may not be economical, even in zones where it is allowed.

Most contracts for meadow management are initiated by the farmer, except for a few that are targeted on very special places. The application procedure is demanding and it must be selective because of the limited financial resources of the Landscape Protection Authority (from the budget of the Ministry of Environment). Nevertheless, the subsidy per hectare is high for particular treatments. Farmers are especially interested in contracts with the Landscape Protection Authority when, for example, they wish to turn degraded (often previously abandoned) land back into meadows or pasture.

An application for a subsidy must document that the applicant is the legitimate owner or tenant of the land in question. Some of the land, however, is informally managed (i.e. the user does not have any formal title or contract to the land). This condition makes it difficult for the Landscape Protection Authority to execute its enforcement duties. If it finds improper treatment on a particular parcel, the staff feel obliged to notify first the owner (who in principle can be identified through the cadastral office), who then can direct the Landscape Protection Authority to the responsible operator. This is not only an inefficient process – with typically hundreds of owners to any one operator – but often an indeterminate one, as well. The Landscape Protection Authority claims that in some cases the majority of land leases are not written down. Cross-referencing applications for the Ministry of Agriculture's support programme could in principle bypass this process by quickly revealing who the operator is. The absence of written contracts shows how little interest many landowners have in securing their property rights. Because little or no income is coming to them, they are prepared to simply leave the duties of looking after the land to the tenants.

The Ministry of Agriculture supports the farming of the landscape more extensively. While the Landscape Protection Authority's modest contracting budget focuses on achieving a positive change in the condition of an area (e.g. scrub clearance), the aim of the Ministry's funding is to secure the maintenance of the area. Initially (1997–2000), the Ministry of Agriculture supported prescribed grassland management practices. Since 2001 there has been a switch to compensation payments along the lines of the EU's Less Favoured Areas (LFA) scheme. Support can be given not only for naturally disadvantaged areas but also for areas subject to environmental constraints imposed by legislation. The regional offices of the Ministry of Agriculture are responsible for administering the LFA payments. Farmers must document that their plots are in the PLA and that they are in compliance with PLA regulations, which has to be confirmed by the Landscape Protection Authority.

Subsidies from the Ministry of Agriculture are only available for those land operators who have at least 2 ha within the PLA and 5 ha outside of it, as well as a certain minimum density of livestock (other than pigs and poultry). Their effect favours the

(larger) operator over the (smaller) owner. The large commercial farming enterprises, moreover, have not felt obliged to reflect the landscape management subsidies they receive with any increase in the rents they pay for the land. Rather, the incentives of the Ministry of Agriculture and their conditions regarding minimum stocking densities are what determine farmers' activities to a large extent. Moreover, even with these incentives, commercial farming at the moment is not that viable. Therefore the farmers have to look to supplementary assistance (mainly additional subsidies) including the suckling cow premium, the premium for pasture—based livestock and payments for ecological farming (see Table 3). Therefore, farmers face ever more complex and exacting requirements, which (in the case of ecological farming) demand additional expertise and a commitment to unknown markets.

Table 3: Available Livestock Farming Subsidies, 2001–2002

Support programme	Conventional (CZK/ha)	Conventional beef breeds on pasture (CZK/ha)	Ecological farming on pasture (CZK/ha)
LFA compensation Livestock on pasture Ecological farming Suckling cow premium (CZK 7500 per calf)	2 500	2 500 1 500 600	2 500 2 100 1 000 600
Total support	2 500	4 600	6 200
Total support (Euro/ha)	79	146	197

Source: Ministry of Agriculture (2001)

Until recently, the Agricultural Agency (the regional office of the Ministry of Agriculture) lacked the capacity to monitor all plots to which subsidies were assigned. In 2000, however, an aerial screening was performed for the first time. This revealed that farmers were claiming subsidies for land that had already reverted to scrub. The falsely declared area accounted for up to 20 percent of the total declared area. The Agricultural Agency proportionally reduced the payments but did not otherwise penalize the farmers.

In principle the policies for protected areas of the Ministry of Agriculture and the Ministry of the Environment (which oversees the Landscape Protection Authority) should be complementary. Support from the Agricultural Ministry is based on mandatory flat rate payments, while the Ministry of the Environment sets restrictions and offers management contracts targeted to particular conservation objectives.

A number of factors, however, frustrate practical integration. In the past, local Landscape Protection Authorities found it difficult to take into account agricultural support programmes that changed almost annually and were not specifically tailored to the PLA Management Plan. Farmers cannot receive compensatory pay-

ments from both the Agricultural Ministry and Environmental Ministry contracts. Because the former are automatic and are allocated earlier in the year, farmers tend to apply for them even though the more uncertain Environmental Ministry contracts are more rewarding. This situation generally reflects a lack of coordination between the two ministries. The Environmental Ministry, for example, does not take part in the Agricultural Ministry's decisions on payment rates or minimum land management requirements. Nor does the Environmental Ministry take these into account when setting its own budget. As a consequence, the capacity of the local Landscape Protection Authority is reduced when coordinating targeted actions (site—specific treatments) with common grassland maintenance.

Given the funding uncertainty and the limited coordination between Ministries, much depends upon the personal efforts of the Landscape Protection Authority staff to keep the farmers' trust and to overcome gaps in policy coordination. This would not have been achievable without the mediating role of NGOs, which have helped to overcome the tensions between the Authority in the White Carpathians and officials of the Agricultural Agency. The degree of cooperation now found among different stakeholders in the White Carpathians is not a common phenomenon in other Protected Landscape Areas.

The Information Centre of Moravke Kopanice (ICMK) has been particularly significant, concentrating on "how to make farming possible and sustainable in the protected area". ICMK's conservation concerns are in accord with those of the Landscape Protection Authority. However, the approaches differ in that ICMK wants first to understand the farmers' problems and then to assist them in finding solutions that combine the farmers' income priorities and the requirements of conservation. ICMK considers the support programmes of both Ministries as important for enhancing both the economic viability of farms and the provision of landscape and biodiversity. However, it views the future sustainability of local agriculture in the incorporation of as much of the White Carpathian meadows' environmental value as possible in "food and fibre" products. Therefore, ICMK encourages farmers to organize in order to produce and find distribution channels for ecological, locally specific (and labelled) products.

The ICMK, however, has found it difficult to identify the target consumer group for these products. Underdeveloped tourism and a lack of loyalty from local consumers have caused ICMK, as well as the farmers themselves, to look to distant urban markets. However, they do not have sufficient knowledge or experience about how to penetrate those markets. Nevertheless, the ICMK enjoys high levels of trust among farmers, as well as with officials of both the Agricultural Agency and the Landscape Protection Authority.

2.3 Attitudes Regarding the Relationship Between Conservation and Farming

In general, commercial farmers have exhibited their willingness to provide land-scape and biodiversity services, subject to their need to make a minimal living. Surveyed farmers have raised the question about who is the intended beneficiary of the environmental services they are increasingly encouraged to provide. Among conservationists – in the Landscape Protection Agency and NGOs – the contribution of the farmers is respected and valued, but this appreciation is not shared by the local people.

Figure 3: Maintaining Human Settlements in the White Carpathians: Compromise Between Economic and Conservation Interests

While the Landscape Protection Authority considers the Agricultural Ministry's compensations for ecological restrictions helpful, it regards them as essentially social, rather than environmental, payments. This attitude prevents the Authority from treating the Agricultural Ministry as a serious contributor towards promoting the values of landscape and biodiversity. Officers of the Agricultural Agency have the perception that the Landscape Protection Authority does not realize that maintaining human settlement in the region requires a compromise between economic and conservation interests. For example, they argue that the Authority should not

insist on maintaining inaccessible meadows that have no production benefit and have suggested converting them into forests instead.

Local mayors are of the view that the natural and landscape character of the area belong mainly to the local community. Therefore, they have reservations about the current way of organizing landscape and biodiversity provision, especially regarding what they view as the neglect of the small local land users and owners who substantially contribute to the character of the area. On the one hand, they appreciate that the compensation payments of the Agricultural Ministry do safeguard jobs for local people. On the other hand, they are critical of the fact that the programme allows the large commercial farms that receive the bulk of the payments to exercise power over the many small landowners. The mayors are sceptical about the environmental standards of the commercial farms.

Local authorities (municipalities) are concerned about the current demographic decline. The younger generations have been leaving the area in order to get jobs. The exodus may threaten sustainable landscape management if there are no land users in the future. Therefore, local authorities call for more funding to improve infrastructure and to encourage the growth of rural businesses, especially in tourism, in the remote but beautiful villages.

3 COMPARISON OF LANDSCAPE MANAGEMENT IN MARGINAL AREAS IN THE CZECH REPUBLIC, HUNGARY AND SLOVENIA

In this section, we seek to compare and contrast the Czech case study with information from areas focusing on similar problems in two other acceding countries, Hungary and Slovenia. The map below gives an overview of the three case study locations.

The Hungarian case study centres on the Borsodi Mezőség Protected Landscape Area (PLA) which covers 18 000 ha, plus a buffer zone (10 000 ha) and a floodplain area (5 000 ha). The core of the PLA was declared in 1989 and was extended to its present size in 1993. It is under the administrative control of the Bükki National Park, which is located about 70 km away. Traditional grazing practices have shaped diverse grassland habitats, with steppe (puszta) habitats predominating. Scattered



across the area are small arable plots. The area is also the meeting point of the North Mountains and the Hortobágy puszta with a delta of more than 100 streams and small rivers and surrounding wetlands. Before 1990 the density of grazing animals was about optimal, although with some localized overgrazing. However, following the privatization process and the agricultural crises of the 1990s the number of livestock has decreased sharply, threatening the maintenance of the landscape and its biodiversity.

The Slovenian case study area, Trnovski Gozd, is an upland area of natural forests and traditional pastoral farming, covering 600 km². It has been proposed as a regional park. Some two–thirds are covered by forest. Agricultural production is extensive and predominantly based on cattle and sheep breeding. Prior to Slovenia's independence (1991), another main activity was the production of hay, most of which was sold to neighbouring Croatia. When that market became inaccessible, farmers ceased to exploit their pastures and meadows, which led to forest and scrub invasion (with a negative impact on biodiversity). Existing agriculture is not viable economically, and farmers have been gradually abandoning their land.

3.1 Evolution of the Problem Definition

All three case studies deal with marginal, semi—natural areas of species—rich habitats on relatively unproductive meadows. The Czech and Slovenian areas are located in upland regions partly covered by forest. All three areas are characterized by low—input farming practices, especially extensive grazing of sheep and cattle, which have created a man—made landscape over centuries. The maintenance of these valuable habitat systems and landscapes requires the continuation of appropriate management practices. The issues encountered in the three case study areas have much wider relevance. It is estimated that in total there are 7 million hectares of semi—natural grassland in the acceding CEECs (see Table 4).

In the Czech and Hungarian cases the protected areas were designated under the socialist period. The purpose was to protect natural values from damaging developments, particularly the intensification or industrialization of agriculture. The agricultural crises in the early 1990s had both positive and negative effects on protected areas as production became more extensive. The least productive areas with limited accessibility and environmental restrictions suffered neglect. The problem–solving objective has changed in the meantime from preventing agricultural intensification to maintaining extensive farming and sympathetic management.

The primary task in the three case—study areas is to elaborate policy tools that could facilitate the achievement of long—term nature conservation and landscape management in marginal areas. The problem of land neglect or abandonment is a common feature, as is the non—viability of extensive agriculture, which leads to the decline of traditional farming practices and a reduction in livestock. These concerns are set in a somewhat different context in the Slovenian case. There the proposal for a re-

gional park was made to safeguard the cultural and natural values of a marginal upland area in regional development. The proposed designation has triggered a debate locally and nationally about the appropriate balance to be struck in such areas between conservation and rural development. Such issues are also gradually coming to the fore in the other two case—study areas, as it becomes recognized that conservation should not and perhaps cannot be achieved at the expense of local people's livelihoods.

Table 4: Estimated Distribution of Semi-Natural Grasslands in the Acceding Countries

Country	Total semi–natural grassland area (ha)	Semi–natural grassland (% of total Utilized Agricultural Area)
Bulgaria	444 436	7.2
Czech Republic	550 000	12.9
Estonia	73 200	4.8
Hungary	850 000	13.6
Latvia	117 850	4.8
Lithuania	167 933	5.4
Poland	1 955 000	10.5
Romania	2 332 730	19.7
Slovakia	294 900	12.0
Slovenia	268 402	53.6

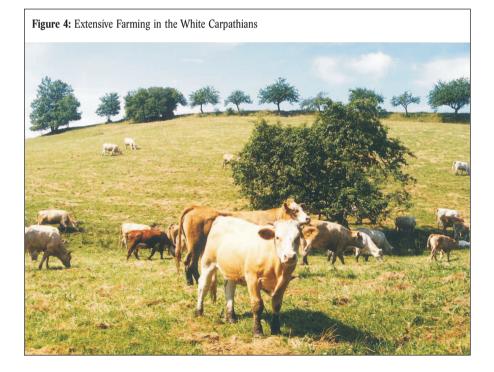
Source: Veen (2001)

3.2 Farming Structure

There are major differences among the three case—study areas regarding farming structure. In the White Carpathians the vast majority of the land is under private ownership, and only a small part of the region is owned by the state. However, here (as in the rest of the Czech Republic) farming retains its large—scale organization even after the privatization programmes of the 1990s. Thus a small number of large commercial farms (> 500 ha) cultivate, but do not own, half the agricultural land in the PLA. They operate within and outside the core zone of the PLA, largely on rented land, which is often formally owned by large numbers of very small landowners. In contrast, in the Hungarian case study area two—thirds of the PLA is owned by the state but all the agricultural area is leased to private persons to manage it. In the buffer zone, however, 94 percent of the land is privately owned.

Both in the Czech and the Hungarian case—study areas, although there are a few large corporate farms, the majority of the farmers manage small plots of less than 2 ha. Most depend on other income, including pensions. Privatization and restitution programmes in Hungary and the Czech Republic brought about profound changes in the ownership structure of land in the 1990s. However, in Slovenia there has been considerable continuity in the ownership and occupation of land. The vast majority of agricultural producers in Slovenia are small—scale family farms that existed in the socialist period. Collectivization had been on a much more limited scale and largely restricted to the more fertile lowland areas.

As a result, post–1989 farm–restructuring issues are very different in Slovenia (e.g. property rights are not uncertain). In Trnovski Gozd, small–scale family farms cultivate their own land (the average size is 8 ha). In contrast to the Czech and Hungarian cases, there are no transformed cooperatives (i. e. successors of former socialist collective farms), and there is very little renting of land. More than half of the farmers manage less than 5 ha and mainly produce for their own consumption. They are part–time farmers earning their main income from non–agricultural activities. This farm–based pluriactivity is a much more clearly established feature in the Slovenian case study. This activity reflects the long tradition of small–scale farming in



Slovenia and the variety of additional economic outlets for which it provides a foundation, including tourism and crafts.

3.3 Policy Tools and Their Implementation

In all the countries strict environmental regulations (e.g. limited or no application of fertilizer and pesticides, a specified period for mowing) have been in place in the PLAs since the socialist period or the early transition period. Sometimes these restrictions are so demanding that their proper implementation and enforcement are not feasible.

In any case, the deep recession in agriculture since the early 1990s has made the imposition of controls difficult – a problem exacerbated by changes in attitudes towards state authority since the socialist period. This is certainly the case in Hungary and the Czech Republic, where the Landscape Protection Authorities date from the 1980s and have not completely dispelled the general distrust surrounding post–socialist authorities. In the Slovenian case study, rural people exhibit a certain wariness towards conservation officialdom, which is also expressed in the local opposition to the proposed designation of the regional park. In both the Czech and Hungarian cases the complex changes and the resulting fragmentation and uncertainty in the ownership and control of land since 1990 have not been conducive to long-term decision-making for sustainable land management. More generally, there has been a shift from defining the solution as "preventing agricultural intensification" to "maintaining extensive farming and sympathetic management, as a means of promoting rural conservation and development in a mixed economy". This shift necessitates the use of a wider range of instruments than simply regulatory controls.

Similar to the Czech case, Slovenian farmers can receive Less Favoured Areas (LFA) support, which is 49 Euro/ha. However, unlike in the White Carpathians, only *naturally* Less Favoured Areas are compensated, and areas subject to environmental restrictions are not. In Hungary LFAs have been designated nation—wide, but payments have not occurred yet (Zellei et al., 2002).

In the Borsodi Mezőség (unlike the Czech case study) farmers do not yet receive any general financial assistance from either the Environmental or Agricultural Ministry for their management of land in the PLA. However, the National Park Directorate provides indirect support through preferential rents for farmers renting land in the PLA. Nevertheless, the tenancy agreements with the National Park Directorate are not long—term, and can be broken at any time by the Directorate. In Slovenia traditional farm practices may receive small additional financial assistance from the park authority or local municipalities.

In all countries agri—environmental programmes are being prepared in anticipation of EU entry. They are expected to facilitate solutions for the case—study problems by

providing support for conservation management tailored to local requirements. In the White Carpathians agri–environmental supports are being introduced in 2003 as part of the pre–accession instrument, SAPARD Programme (1999). Slovenia has already gathered some experience with this type of programme as it started its own domestic agri–environmental programme on a pilot scale in 2001 (with a budget of 6 million Euro for that year). In Hungary, likewise, a limited agri–environmental programme was launched in 2002 (with a national budget of 9 million Euro for that year), under which farmers in the Borsodi Mezőség buffer zone became eligible for payments for the first time.

In Slovenia farmers cultivating land in protected areas are eligible for 15 percent higher payments under the agri–environmental programme. This is not yet the case for Tronvski Gozd, as its designation has not been finalized. The conditions for participating in the programme are:

- certified integrated or organic production; or
- a maximum stocking density of 1.9 livestock units/ha; or
- location within a protected area; or
- agreement to reduce existing production intensity in order to pursue other conservation measures.

Although any farmer who meets the required conditions is eligible to receive payments, it is generally those who farm less intensively that decide to apply.

Agri-environmental incentives are unfamiliar to farmers, and they may need help and encouragement to apply. In the Czech Republic it is expected that three officials from the Regional Office of the Agricultural Ministry and one NGO employee will assist farmers in submitting their applications. In Slovenia three local advisors and the Regional Agricultural Institute have assisted farmers in the case–study area. In each country there is a concern that older farmers and operators with tiny plots are unlikely to get involved.

In Hungary land acquisition has been actively used for conservation purposes by both the state and NGOs. About 68 percent of the Borsodi Mezőség Protected Landscape Area is owned by the state and is held by the Bükki National Park Directorate, which leases out the land. In the near future it is expected that all of the grassland and wetlands will be under state ownership. Although the arable land within the protected area was privatized, many owners sold their land to the National Park Directorate, which has built up a holding of around 20 percent of the arable area. An NGO (Tiszatáj Foundation) has sought to ensure nature conservation on valuable land around the PLA. With foreign assistance it has acquired large areas in the buffer zone from the privatization process. It rents this land to farmers with certain management prescriptions. Initially the National Park Directorate welcomed this NGO activity, but now considers it a competitor because the Directorate has been allowed to buy land since 1996.

Summary of the Hungarian Case

- Although strict environmental regulation has existed within the Protected Landscape Area since 1989, the enforcement and implementation of these rules face difficulties.
- Following the privatization process and the agricultural crises of the 1990s, the number of livestock decreased sharply, threatening the maintenance of the landscape and its biodiversity value.
- Seventy percent of the Protected Landscape Area is state—owned. However, in the buffer zone 94 percent of the farms are in private ownership.
- The Landscape Protection Authority rents land to farmers preferentially and with strict management prescription.
- A few large commercial farms manage most of the area. In contrast, most farmers have less than 2 ha each.
- At present farmers producing in the protected area are obliged to comply with restrictions, but there are no general financial incentives to do so.
- Small farmers struggle to make a living.
- There is an ageing population with limited knowledge and interest in environmentally friendly farming practices.
- Cooperation between the Ministry of Agriculture and Ministry of Environment is weak, but progress has been made since the elaboration of the National Agri—environmental Programme.
- The cooperation and flow of information between the national ministries and their regional and local offices are still not satisfactory.
- There is a need for organizations providing conservation education and advice to farmers.
- Local actors are not sufficiently involved in the formulation of management practices and development activities in the area.

3.4 Attitudes of Actors and Their Cooperation

The legislation for Protected Landscape Areas is the responsibility of Environmental Ministries and is policed by their regional officials. The change in emphasis from regulation towards promoting extensive farming and sympathetic management has necessitated a more active and cooperative engagement between conservation officials and local farmers. More recently, the advent of agri–environmental programmes has also demanded collaboration between Agricultural and Environmental Ministries, which are not used to working together. However, a top–down outlook is prevalent in all the Ministries, which limits the scope for local officials to collaborate in seeking local solutions.

In each country the employees of the regional offices of the Environmental Ministries have had to pursue a more flexible approach towards farmers to solve conflicts

with nature conservation. There is different scope for this in the different countries. For example, the structure of the Hungarian nature and landscape protection authorities differs from those in the Czech Republic.

In the Czech Republic these authorities are all at the same level and each is directly linked to the Environmental Ministry. In Hungary the national parks, landscape protection areas, nature conservation areas, natural monuments and related institutions are all part of a more hierarchical structure. Consequently, in the White Carpathians the Landscape Protection Authority has been better able to adapt its behaviour under the changing circumstances. It has also become more communicative with farmers and more cooperative with the local NGO. Even so, tensions remain between the Landscape Protection Authority and the regional Agricultural Agency. The structure is more rigid and less flexible in Hungary. The financial resources and decisions of the Borsodi Mezőség Protected Landscape Authority are controlled by the Bükki National Park Directorate.

In Hungary, similar to the Czech case, there is a grassroots organization (Cötkény Rural Development Association) which has sought to have a mediating role in harmonizing the interests of local farmers and nature conservation (Szabó et al., 2001). It was established by farming leaders and local mayors from six settlements around the core protected area in the early 1990s. The National Park Directorate is an active member. The Association has worked out a complex strategy for the area, including a range of development projects, primarily building on the area's natural values, extensive farming systems and cultural traditions. As yet, though, the strategy has not attracted EU or domestic funds, and this has limited the practical role that the Association can play.

In Slovenia, as in the Hungarian case, there is cooperation between municipalities to facilitate regional development. This cooperation can include independent development agencies, which is the case in Trnovski Gozd. Information dissemination among farmers and local residents about the natural values of the area is done mainly by the National Park Authority through various publications. Meanwhile, information about available financial support for farmers is provided by the local agricultural extension service and media. Although there are several local NGOs in Trnovski Gozd, their cooperation among themselves is weak, as they focus on very specific tasks.

In the White Carpathians, farmers are more concerned about the environment and more optimistic regarding the future of environmentally friendly production than farmers in the Hungarian case—study area. In Borsodi Mezőség only a narrow segment of farmers with large land holdings and better education is interested in nature conservation. The majority of the population struggles to survive as privatization brought about a very fragmented farm structure that is economically less viable than in the White Carpathians.

In Slovenia the opinion of the local residents on the proposed regional park is very mixed (Barbic et al., 2001). Some consider it a potential solution for slowing outmigration and maintaining existing agricultural activities. Others regard it as an obstacle for further development due to limitations on new buildings and certain economic activities. However, the local community would like to be more involved in the designation process of the park. (Local people have received poor information on the park designation and were excluded from the delineation of its planned boundary).

In all the countries the local community and farmers would like to have a more active say in the formulation of conservation and development priorities. This happened to a certain extent in the Czech Republic and Slovenia during the elaboration of their national agri–environmental programmes as farmers' representatives were involved in this process. However, that was not the case in Hungary.

Summary of the Slovenian Case

- The case—study area is a proposed regional park covering an upland area of natural forest and semi—natural grassland.
- Extensive traditional farm practices are not economically viable, which has led to depopulation and land abandonment.
- The vast majority of producers are small—scale family farms that existed under the socialist period. The continuation in the ownership structure of land has resulted in clear property rights.
- Land is rarely rented or sold.
- Farming pluriactivity that provides additional income sources for the rural population (e.g. tourism, crafts) is a significant characteristic.
- Local actors are not sufficiently involved in the designation process of the regional park and other development activities.
- The main concern is to reach an appropriate balance in the area between conservation and rural development.
- There are several NGOs, although cooperation among them is weak.

3.5 Further Development Opportunities

All the case—study areas are characterized by having a marginal location, poor infrastructure and limited employment opportunities. These factors encourage outmigration, which leaves behind an ageing population with a low level of education. Some of the underlying factors have significantly worsened since the late 1980s. Agricultural incomes have dropped and infrastructure has been neglected. Post—1989 geopolitical changes have also exacerbated the marginality of these areas. For example, the White Carpathians now straddle an international border between the Czech and Slovak Republics; and Slovenian farmers have been cut off

from their traditional Croatian markets. With agriculture no longer being the backbone of the rural economy, there is a search for alternatives. In such areas ecological farming, marketing of local agricultural products and ecotourism might provide opportunities for diversifying the local economy.

In each country on the majority of farms only minor adjustments would be required to make the present low—input farming eligible for organic certification. In the White Carpathians, partly as a result of NGO activity, an increasing number of farmers have started to convert to organic production. There are often no price premiums, but organic production attracts an agricultural subsidy of 33 Euro/ha (or 69 Euro/ha if the livestock is kept on natural pastures). Mainly the farmers operating larger holdings are interested in this option. In the Hungarian and Slovenian case—study areas, NGO encouragement of organic production and subsidies for organic farming have so far had little impact.

In Slovenia examples show that agricultural products with a national park label have good market opportunities. This might be a possibility for Trnovski Gozd if and when it is designated a regional park. In the Hungarian case—study area the marketing of local agricultural products was initiated with the setting up of a regional marketing cooperative in 2001. Many farmers joined it because membership can significantly boost their score under the official evaluation criteria for agri—environmental applications. The Cötkény Rural Development Association intends to set up an association for local farmers to explore marketing and other development opportunities.

In Trnovski Gozd in Slovenia, further opportunities are seen in developing the area's recreational potential (forest trails, cycling and walking paths, birds/wild animals observation centres, guided tours for picking mushrooms/berries). In Borsodi Mezőség in Hungary the lack of entrepreneurial skills and capital make it difficult for the local residents to start tourism ventures. However, this is still thought to offer the best chance for a higher standard of living as the unspoiled nature in the case—study area seems especially suited for ecotourism. However, all these development plans might be threatened by the recent national flood control plan, which would designate the whole Borsodi Mezőség as an emergency flood reservoir. Farmers have very mixed opinions about the plan, but mainly see it as disadvantageous. However, the Cötkény Rural Development Association considers it a good opportunity for developing infrastructure and attracting more financial assistance by designating the whole area as a wetland eligible for agri—environmental supports (Zellei et al., 2002).

4 POLICY OPTIONS FOR THE WHITE CARPATHIANS

4.1 The Prospective Policy Context with EU Accession

The future funding opportunities provided by different EU instruments following accession will guide the direction of farmers' future activities and will influence their willingness to continue with existing extensive farming systems.

EU accession requires the CEECs to adopt and implement the entire EU legislative corpus, including environmental legislation. Of particular relevance to the case study will be the Birds (79/409/EEC) and Habitats (92/43/EEC) Directives and the establishment of the related Natura 2000 network. The nature policy stipulated by the Habitats Directive differs from previous regulatory concepts as it explicitly permits development activities to proceed if there are 'imperative reasons of overriding public interest'. It also has provided that compensatory measures are to be taken to maintain the overall coherence of Natura 2000 (cit. Habitats Directive, 1992). The Natura 2000 network is likely to cover already existing protected areas and sizeable areas of semi–natural land in the acceding countries. The management of designated sites, which is to be decided by national and regional authorities in consultation with local communities, can be achieved either by introducing legal restrictions or through contractual measures agreed upon on a voluntary basis using incentive payments.

The achievement of positive conservation management appropriate to the extensive semi-natural areas in the CEECs requires the active engagement of farmers in conservation practices; legal controls on their own would not be sufficient. Following EU accession the maintenance of biodiversity in farmed landscapes can be supported or encouraged through three instruments. Two of them are under the Rural Development Regulation (1257/99/EEC), which is the 'second pillar' of Common Agricultural Policy (CAP). The Less Favoured Area (LFA) measure includes an option for compensating farmers for environmental restrictions, whereas the agri-environmental measure remunerates farmers for providing environmental benefits beyond basic legal minima. The third option relates to conditions attached to payments under the 'first pillar' of the CAP.

Environmentally Less Favoured Areas

Regarding Natura 2000 sites, one funding stream that could be used is provided by "Article 16" of the Rural Development Regulation (1999). This article stipulates that farmers can be compensated for managing areas subject to environmental constraints "based on Community environmental protection rules". This instrument can be utilized on Natura 2000 sites when the environmental legislation (under which the farmer's land is designated) requires the farmer to look after the habitat

by law. These environmental LFA payments are straightforward compensation for the restrictions imposed by Natura 2000 designation. Therefore, they are a potential sweetener for local communities to accept Natura 2000 designation and the environmental restrictions entailed. The total area of LFAs with such restrictions or specific handicaps must not exceed 10 percent of the total area of each Member State.

Agri-environmental Measures

Agri–environment is the only compulsory component of the Rural Development Regulation (1999). The lack of an adequate agri–environmental programme upon accession might delay the approval of the CEECs' Rural Development Plans and consequently limit access to relevant funding under the 'second pillar' of CAP. These schemes offer financial incentives for farming in an environmentally sensitive way. Payments for farmers may be an effective way of encouraging them to continue with existing types of farming, rather than adopting a more intensive approach. Agri–environmental programmes offer an opportunity to achieve the sustainable use of natural resources (Baldock et al., 2002).

Direct Aid Payment

Some farmers will be eligible for the new direct aid payments under the 'first pillar' of the CAP, which provides support for commodity production. Such aid is likely to be made as flat rate area payments in the years immediately after accession, and there are likely to be obligations attached. For example there may be a requirement that the land be kept in 'good agricultural condition'. This could possibly help counter land abandonment, depending on how the requirement is defined and applied. This policy framework will have a significant effect on the policy options for the case study areas.

4.2 Options for the White Carpathians

The case study identified three obstacles to the long—term sustainability of land management in the area:

- the division and uncertainty surrounding ownership and control of the land:
- the difficulties of integrating measures and policies for agricultural support and environmental protection;
- the limited involvement of local people (particularly those that are not commercial farmers) in determining how the area should be managed and developed.

Here we examine three policy options, each addressing one of the obstacles identified above:

- Policy option A: The Landscape Protection Authority takes over the ownership and management of all the land that is most valuable from a conservation point of view;
- Policy option B: Environmental and agricultural policies are integrated at all levels, with farmers contracted to provide nature and landscape values;
- Policy option C: Agri–environmental policies are delivered through local partnerships, which ensure that they are responsive to local people.

4.3 Policy Option A: The Landscape Protection Authority Takes Over

The officers of the Landscape Protection Authority would like to see a simplification in the institutional arrangements surrounding the management and control of the land. To achieve this the officers consider state acquisition of the most important land and its transfer to the Landscape Protection Authority the most effective method.

The Landscape Protection Authority itself would then become the provider of the public good, contracting out the maintenance tasks such as mowing the grass. In this way many of the problems having to do with inter–agency liaison and the inadequate delineation of property rights could be overcome. The Authority also sees this as a means of avoiding the cheating that occurs with the Agricultural Agency's landscape—management payments (e.g. farmers claiming meadow management payments for land that has reverted to scrub).

The aspiration of the Landscape Protection Authority to hold land, however, does not command widespread support. The local farmers fear that they would lose their livelihoods. Even in the public sector there is resistance to the notion. The municipal representatives fear that it would force people away from the region, leading to a loss of rural amenities. The Agricultural Agency officers argue that the landscape of the White Carpathians is a cultural one, which is the outcome of the continuing interaction between farming and nature.

The following is a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis of this policy option.

Strengths:

- The Landscape Protection Authority has considerable experience in, and is devoted to, land management for conservation purposes.
- There would be greater public control over the area and therefore less uncertainty about its future.

- Over the long-term, state acquisition and management of the land might prove to be the cheapest option in terms of public expenditure.
- The combining of the ownership and control of the land should lead to easier administration.
- There should also be a much closer relationship between science and management in the practical conservation of the area.

Weaknesses:

- The effect would be to change a living, working landscape into a biodiversity museum.
- Independent farmers would be replaced by state employees and/or contractors (possibly from outside the area) with less of a stake in how the land is managed and conserved.
- The need for conservation management is not widely understood: the public regards such practices as the mowing and disposal of hay as costly and wasteful.
- State resources are limited, and buying land for conservation is not a high priority.
- The older generation of owners might be especially reluctant to sell the land.

Opportunities:

• The depressed land market and disillusionment with the outcome of land restitution and privatization have created a unique opportunity to consolidate public ownership of the area for long—term public benefit.

Threats:

- Local people could be completely alienated from the control and management of the area.
- There is no guarantee that the Landscape Protection Authority will always have sufficient resources to manage the area properly; if these fail there would be no other option for management.
- The large—scale ownership of land by the Authority may prove unacceptable because of widespread unease over a return to land nationalization.

A less radical option would be that the Landscape Protection Authority acquires the land and leases it back to the farmers at a low rent with either restrictive environmental conditions or a requirement to join the agri—environmental scheme. This would have the advantage of securing skilled management and keeping the financial returns to management within the local community.

4.4 Policy Option B: Integrated Agri–environmental Policies Based on Private Land Ownership

A second option is a unified agri–environmental policy framework that sets certain restrictions on land use (compensated through LFA payments) and provides incentives to farmers to produce environmental qualities. This recognizes that the land and natural environment of the White Carpathians are probably best managed and conserved through extensive farming. What differentiates this scenario from the current arrangement is that, while the budget will remain in the hands of the Agricultural Agency, individual measures will be targeted to the needs of "local" nature - in order to produce the desired environmental effects. Therefore, the policy has to be rich in measures, and the choice, price and targeting of measures have to be decided in close consultation with the Landscape Protection Authority. The necessary degree of policy integration will be assured only if a participatory approach to policy development and implementation is adopted. Therefore, the policy framework would have to be set up in close cooperation between the Ministry of Agriculture and the Ministry of Environment at the national level. Individual measures would be developed in close consultation with local/regional actors (Agricultural Agency, the Landscape Protection Authority, farmers' representatives and the NGO, ICMK).

A majority of policy actors in the White Carpathians and some of the interviewed officers from the Agricultural and Environmental Ministries in Prague supported a participatory way of designing and implementing agri—environmental measures. There was general agreement that the proposed integration would require building the capacity of actors (the Agricultural Agency and the Landscape Protection Authority) to negotiate and cooperate. Under the current circumstances of "disintegrated" policy, some of the gaps have been plugged by an NGO, ICMK. However, it is overstretched and would have to be strengthened if it were to provide the conservation advice that farmers need. Such strengthening of the capacity of local and regional actors would partially address a deep concern of the Landscape Protection Authority. This concern is that the incorporation of environmental measures within the framework of agricultural policy would simply increase the Agricultural Ministry's power and marginalize its own position.

The following is a SWOT analysis of this policy option.

Strengths:

- This proposal combines agricultural and environmental expertise in the management of the land.
- It has the benefit of continuity. It incorporates the same ownership and policy framework but has better—targeted and funded measures (under the agricultural budget).
- Agreement on policies would begin to build a relationship between the Agricultural and Environmental Ministries.

• There is an already experienced local facilitator in the form of the NGO for sponsoring land management.

Weaknesses:

- There is no history of joint policy formulation or implementation.
- The search for compromise could lead to the shelving of difficult decisions.
- It is not evident that both parties want to compromise.

Opportunities:

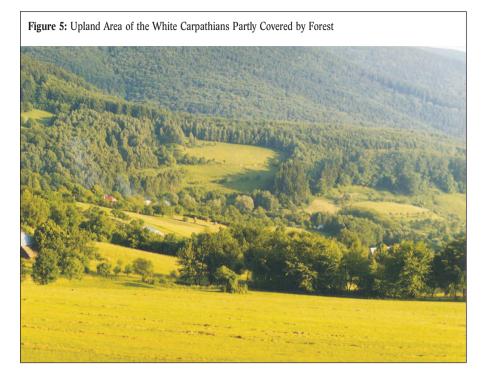
- There is an opportunity to begin to 'green' agricultural policy and to improve the awareness of farmers and agricultural officials.
- Agri–environmental programmes are compulsory for all Member States, which effectively opens up a new source of funding.
- The Landscape Protection Authority and the NGO could be very effective means of targeting the most appropriate measures to specific areas of land. It might even be possible to use the provision in the Rural Development Regulation (1999) for the "use of environmental planning in farm practice" (Article 22) to pay for farmers to have a plan prepared by the Landscape Protection Authority/NGO.

Threats:

- Power and resources would be concentrated in the Agricultural Ministry, which could obstruct the efforts of conservationists by treating payments simply as income support.
- The necessary increase in administrative budgets and staff to achieve well-integrated and targeted delivery of measures may not be forthcoming.

4.5 Policy Option C: Agri–environmental Policies Through Local Partnerships

In this scenario, farmers are still the entitled users (either as rightful owners or tenants) of the land, but the local community would have a greater say in the management of the area. The rationale is that the local community is the most important consumer of environmental goods in the White Carpathians, but also helps provide these goods (the local culture, the vernacular architecture, the small orchards and meadows). Basically, this option would consist of increasing the significance of the local community in decision—making. It would require a substantial revision of the policy and institutional framework. This revision would be based on the need for consensus about development and conservation priorities among local actors (representatives of the local people, the Landscape Protection Authority, representatives of the farmers, etc.).



The role of the Landscape Protection Authority would shift from that of a master planner to that of a facilitator for public discussion about priorities and choices. Already, with the help of an NGO partner, the Authority has persuaded farmers to conserve much of the meadows. This is an impressive model that could be used to involve the farmers and the local community in the design and implementation of local agri-environmental measures. Perhaps it could also be developed for other locally led initiatives such as improved marketing of farm produce, export of high quality hay and ecotourism, possibly as part of a LEADER—type programme.

The appeal of this policy option lies in the assumption that if the local community gets more say in the organization and provision of environmental services and sees direct financial benefits, then conservation awareness will grow in the area. The community will then be more willing to give their support to the local farmers and the Landscape Protection Authority as the main providers of these services. Through social learning among policy actors (especially the local community and farmers) the practice and values of nature conservation could become deeply embedded.

The following is a SWOT analysis of this policy option.

Strengths:

- Management of the area in a way that is responsive to local people would ensure long—term support and legitimacy for the protected area.
- Measures taken would be well-adapted to local needs and circumstances.
- Conservation aims would be well-integrated with rural development aims and initiatives.
- Uptake by farmers would improve.

Weaknesses:

- Traditions of active participation are not well–established, and local people lack the experience to participate and to act as leaders.
- Levels of environmental awareness are low.
- A new financial framework would be needed, which might be resisted by powerful groups (e.g. the agricultural lobby).

Opportunities:

- The role and significance of NGOs could be expanded.
- Local mayors and village authorities could be encouraged to take an active interest in the surrounding landscape.
- Villagers and smallholders could be drawn into conservation activities.

Threats:

- Limited local interest might restrict the scope for collective action and give conservation a low priority.
- National interests might not allow sufficient scope and autonomy at the local level.

This option could make use of funding from other provisions of the Rural Development Regulation (1999). For example, the Regulation provides support for training farmers in environmental management (Article 9), the processing and marketing of agricultural products (Article 25–28) and promoting the adaptation and development of rural areas (Article 33).

4.6 The Policy Options and EU Policy Frameworks

All three of our policy options are feasible within the EU agricultural and environmental policy frameworks. However, the policy outlined in Option A would not benefit from the EAGGF budget because the area in question would not be managed by farmers. Option B is very close to the current CAP in objectives as well as in procedure and would probably allow maximum co–financing from EAGGF. Option C goes beyond the current agriculturally oriented environmental policy of the EU, mainly in

the involvement of all local/regional stakeholders in the policy process. However, it does seem to be moving in the direction that CAP reforms are heading, step by step.

Much therefore depends on the time scale over which policy and institutional change occur. The case study identified three obstacles to long—term sustainability, and we now return to these obstacles to structure our consideration of the wider issues that were raised for the acceding countries and EU policy.

5 WIDER ISSUES FOR EU AGRI-ENVIRONMENTAL POLICIES AND ENLARGEMENT

Reflections on the White Carpathians case study and comparison with areas facing similar problems in other CEECs reveals some wider issues that will be examined below.

5.1 Uncertainty Surrounding Ownership and Control of the Land

The division and uncertainty surrounding the ownership and control of land in the White Carpathians are not atypical of the situation found in many marginal areas in the CEECs after the programmes of decollectivization and property restitution in the 1990s. There is an extreme duality in farm structures, and power asymmetries are present between large operators and very small owners. These conditions and such factors as indeterminate ownership, absentee or inactive ownership and occupation of land without legal title are not conducive to long—term decision—making and sustainable management. Indeed, they may induce land abandonment. Three possible options were considered to address these problems:

- Acquisition by landscape protection authorities of the more valuable land would overcome the division and uncertainty surrounding property rights and would secure the long—term future of the land for conservation purposes. This approach is being pursued in our Hungarian case study. The area is considerably smaller than the White Carpathians, but even in this Hungarian case issues concerning the effective management of the publicly owned land (incentives for management, control over inappropriate activities) remain unresolved. In the White Carpathians, the option of public ownership is controversial and would be rejected by many as unduly prioritizing conservation over rural development.
- The small owners and farmers could be encouraged to cooperate, so as to participate in both the CAP and other rural development and conservation policies. This would require very energetic local leadership, which might conceivably come from a charismatic local figure an NGO (creating a Land Trust, for example) or even a local mayor who enjoyed the requisite trust. Prevailing attitudes (antagonism towards socialistic notions of cooperation) and the policy framework are not conducive to such collective action.
- In the White Carpathians there is an example of a Conservation Land Trust managed by a national NGO. It leases 700 ha of valuable conservation land from owners and competitively raises money year by year from the Environment Ministry in order to pay farmers for targeted management according to the Trust's prescriptions. This results in a more effi-

cient pursuit of conservation objectives especially given that the land managed through the Trust is less suitable for farming (poor soil quality, difficult accessibility). This seems a good initiative with perhaps wider applicability.

A final point worth noting in relation to the farming structure of the CEECs is that large farming companies (deriving from the former state or collective farms) still manage much of the land. They may not necessarily fit well into EU programmes designed for Western family farmers. However, any proposals to redistribute or constrain property rights raises acute sensitivities in the former socialist societies.

5.2 The Difficulties of Integrating Measures and Policies for Agricultural Support and Environmental Protection

When studying differences between the current CEEC and EU agri–environmental policies it is quite clear that agri–environmental measures adopted in member states in the framework of the Rural Development Regulation (1999) are more targeted than current ones in the CEECs. Individual measures are defined in great detail, which allow management contracts to be adjusted to the local specificity of conservation to a high degree. These contracts are usually prepared in close cooperation with the main local stakeholders, thus conflicts or different perceptions are resolved from the start. There is no experience of such a detailed approach in the acceding countries, which underlines the importance of the pilot agri–environment projects under SAPARD. The complex administration and implementation rules require a lot more information, experience and open–mindedness than farmers and local agencies have been used to. There is a significant need for more information and higher awareness among farmers and administrative staff; and hence for more education and extension activities directed to farmers and training for administrators.

EU measures are richer in control indicators, but so far measures employed in the CEECs have been simple. Thus, control has usually been based on a few indicators (grass cut, or not, for example). In the EU relatively detailed monitoring and evaluation (provided by the member states) are required by the Commission. In the acceding countries, agricultural support policies have always been evaluated only on a simple statistical 'output' basis, such as number of applicants and money spent. There have never been serious attempts to evaluate the actual effectiveness and efficiency of measures. There is a general fear in the state administrations of the acceding countries that implementation, monitoring and evaluation are too demanding in the EU schemes.

The establishment of the appropriate payments for a given management regime can be difficult. The level of payment is critical to ensure both a good uptake and reasonable cost—effectiveness. Good agro—economic baseline data are essential, but in the CEECs they are often not available. Collecting the necessary data may delay the de-

sign and establishment of programmes. There is also a need for accurate up—to—date maps of land ownership and occupancy.

A related issue is that of characterizing Good Farming Practice (GFP), which became a requirement for the agri–environmental and LFA measures after the enactment of the Rural Development Regulation (1999) and its Implementing Regulation (Commission Regulation, 445/2002). GFP sets a baseline, above which farmers are eligible for agri–environmental or LFA payment. GFP should comply with the EU and national environmental laws and can incorporate advice from extension services, advisory bodies and take into account scientific and technical progress. EU Member States are also required to specify 'verifiable standards' in their rural development plans.

These standards are those which can be checked without excessive effort and costs (e. g. width of field margin). The main purpose is to be able to verify that key aspects of GFP are being complied with and that agri–environmental measures are delivering benefits above and beyond the GFP baseline. It is important, therefore, that the GFP should not be too exacting, which would leave little room for agri–environmental incentives.

Getting the appropriate balance between legislation and incentives is a difficult task, which may take time to get right. It presents a particular challenge to the CEECs, which have tended to rely exclusively on legal norms. Establishing an agri—environment scheme requires both technical and political skills. Therefore, working with stakeholders to continuously improve the scheme is vital. Feedback is essential for success (Baldock et al., 2002).

The administrative arrangements required to set up national or pilot agri—environmental schemes are a tremendous challenge for the CEECs. Due to the former collective farm structure in most CEECs there may not be the necessary administrative structures for informing and dealing with a great number of individual farmers. The cost of administering the scheme might require a large percentage (20 percent) of the overall expenditure, perhaps even higher in the early years. It might be advisable for the acceding countries to draw up a proper cost evaluation of planned delivery, monitoring and evaluation procedures. Given the lack of experience with agri—environmental schemes, the training of administrative staff at the national, regional and local levels will be an important factor for the scheme's success. This applies particularly to administrators who are in direct contact with farmers.

The future of the internationally important meadows in the White Carpathians is threatened because there are not enough cattle and because the agricultural subsidies exclude farmers without livestock and also very small farmers. A well–funded agri–environmental programme would encourage more farmers to graze on their meadows but under current EU rules, CAP funding is unlikely to be available to all who could make use of it. Policy–makers may have to find other sources of funding

for supplementary environmental payments. The current CAP does not offer the means to manage abandoned land, which may be necessary to achieve Natura 2000 objectives.

The threat land abandonment poses to biodiversity in the CEECs has been revealed by several studies. Changes in the economic situation and agricultural policy associated with market liberalization, land privatization and the considerable fall in livestock numbers have resulted in extensive land abandonment, which threatens many important habitats. Land abandonment is a particularly serious issue in the CEECs. Not only are remote and isolated areas threatened, but whole regions. In some countries more than half of the agricultural or grassland area is affected (e.g. the Baltic states or the Czech Republic). When the area abandoned becomes too large there is no one left to undertake any necessary management of the land. Therefore, appropriate incentive mechanisms are important.

The CAP does not currently reflect the issue of land abandonment, certainly not on the scale encountered in the CEECs. While LFA supports could help prevent further abandonment, they cannot reverse it where it has already occurred or is well advanced. Likewise, overcoming abandonment is not an explicit goal of the agri—environmental schemes. The very basis of payment (i. e. largely compensation for income loss plus costs incurred) would not allow for subsidizing the management of abandoned land. Nor could it be sufficient to prevent abandonment when farms are close to that situation (e. g. when livestock densities are lower than 0.2 cattle/ha, payment for further extension or costs incurred is meaningless).

It is difficult to predict the way farming structures will be changed in the CEECs and the environmental consequences. Nevertheless, it is likely that EU accession will result in areas of highly intensive farming and increased production, contrasting with abandoned areas in less competitive regions. The serious land—abandonment issue in the CEECs, which particularly affects valuable grasslands, cannot be resolved without substantial increase in grazing livestock in the affected area. Restricting livestock quotas to current levels (which already represents a massive decline in sheep numbers throughout the region) would create a problem from an environmental management point of view. Acquiring sufficiently high livestock quotas during the accession process, especially for suckling cows and sheep, is essential to ensure the upkeep of important semi-natural areas.

5.3 The Limited Involvement of Local People in Determining how Marginal Areas Should be Managed and Developed

In the acceding countries ecologically valuable regions are located in marginal and economically depressed areas where agriculture is a central activity and necessary for environmental management, but is not sufficient on its own to ensure economic viability. The declining significance of agriculture and the expected structural

changes in the rural areas following EU accession call for alternative provisions for the redundant rural workforce. These provisions could be made through the diversification of non–farm rural economies or provision of payment for environmental services. In these respects, Natura 2000 sites can play a key role in long–term development strategies for such marginal economies.

However, programmes like Natura 2000 represent a sharp departure for the acceding countries. It is unavoidable that local people regard them as an external imposition. Generally speaking, few actors in the acceding countries regard Natura 2000 as a chance for a more open discussion about the future of nature conservation. It is crucial how the Habitats Directive and the related Natura 2000 network are presented to the farmers and the public. They could be viewed as constraints on development activities but also as an opportunity for environmental protection and significant positive regional economic effects, such as value added and employment opportunities. On Natura 2000 sites nature conservation authorities can win local support for conservation measures if they are able to link development options with nature conservation and generate jobs and capital in the area. But this would necessitate a change in their traditional tasks towards a facilitating and developmental role and the adoption of a more open and responsive attitude towards farmers and local businesses.

In the acceding countries the shift towards a more participatory type of governance is a challenging task given the legacy of the socialist era. During that period, conservation issues were tackled through designation of national parks or nature reserves usually without consultation with local communities and sometimes against their interests. This resulted in unfavourable effects such as local antipathy towards nature conservation or disrespect for protective regulations. The establishment of some parks by the former political regimes stigmatized them permanently with the image of external imposition. This makes it difficult for environmental authorities to pursue meaningful cooperation with local people.

Western European experience has revealed that early and ongoing stakeholder involvement is crucial to address any opposition to the designation of Natura 2000 sites, given concerns and fears about restricting future activities. Widespread consultation is required on the broad benefits of Natura 2000 and how to realize them. When such debate has occurred, it has helped to overcome resistance and to increase local collaboration (ten Brink et al., 2002). It is important to make local communities aware that Natura 2000 designation could allow for environmental, social and economic interests to be supported together. Local stakeholders should also be informed about the EU funding and measures available for conservation and rural development activities. This requires close cooperation between the Ministry of Environment who designates Natura 2000 sites and the Ministry of Agriculture, who is responsible for the funds that are available (under the 'second pillar') for the management of these sites and related development activities.

Greater involvement of rural actors is required in deciding the future development of their area. Whether right or wrong, aspects of European integration are seen to represent a loss of local influence or autonomy, not only with respect to the designation of Natura 2000 sites, but also through experience with SAPARD. (SAPARD is perceived to have reinforced the position of central bureaucracies.) Too often, local people feel that the outlook for marginal areas depends upon distant power struggles and rivalries between conservation, agricultural and development agencies. To overcome this feeling of alienation, a mechanism is needed through which to facilitate cooperation and accountability in the local social arena. This mechanism is also needed to promote the representation of local interests in regional and national development plans and programmes.

LIST OF PARTICIPANTS

NAME	INSTITUTION	COUNTRY
Katalin Balázs	Szent István University, Gödöllő Institute of Environmental Management	Hungary
Mihály Bodnár	Borsodi Mezőség Protected Landscape Area, Budapest	Hungary
Katerina Brandova	Ministry of Agriculture, EU Accession Unit, Prague	Czech Republic
Terry Carroll	University of Newcastle, Centre for Rural Economy, Northumberland National Park Authority	United Kingdom
Petr Dolejsky	Landscape Protected Area Administration of White Carpathians, Brno	Czech Republic
Milan Drgac	NGO Information Centre of Moravke Kopanice, Brno	Czech Republic
Marting Fantys	Ministry of Agriculture, Structural Funds and Rural Development Unit, Prague	Czech Republic
Bohumil Fišer	Administration of Protected Landscape Areas of the Czech Republic, Prague	Czech Republic
Franz Gatzweiler	Humboldt University of Berlin, Chair of Resource Economics	Germany
Olavi Hiiemäe	Environmental Protection Institute, Tartu	Estonia
Jan Jongepier	Landscape Protected Area Administration of White Carpathians, Brno	Czech Republic
Ivana Jongepierova	Landscape Protected Area Administration of White Carpathians, Brno	Czech Republic
Clunie Keenleyside	Rural Land Use Consultancy, Cardiff	United Kingdom
Veronika Krumalova	Research Institute of Agricultural Economics, Brno	Czech Republic
Philip Lowe	University of Newcastle, Centre for Rural Economy	United Kingdom
Jan–Erik Petersen	European Environment Agency, Copenhagen	Denmark

NAME	INSTITUTION	COUNTRY
Alois Posch	Federal Ministry of Agriculture,	
	Forestry and Water Management, Vienna	Austria
Jaroslav Prazan	Research Institute of Agricultural Economics,	
	Brno	Czech Republic
Sille Teiter	Ministry of Agriculture, Tallinn	Estonia
Josef Vaculík	White Carpathians Regional Office of the Ministry	
	of Agriculture, Brno	Czech Republic
Anett Zellei	University of Newcastle,	
	Centre for Rural Economy	United Kingdom

REFERENCES

Agricultural Law of the Czech Republic. 1997. Act No 252/1997 on Agriculture. *In* Law Collection No 85/1997, Prague.

BALDOCK, D., BENNETT, H., PETERSEN, J., VEEN, P. & VERSCHUUR, G. 2002. *Developing Agri–Environment Programmes in Central and Eastern Europe – A Manual*. London, Institute for European Environmental Policy.

BARBIC, A., UDOVC, A. & MEDVED, A. 2001. Sustainable Agriculture in Protected Areas Planned Regional Park Trnovski Gozd, Slovenia. *In A. ZELLEI, M. GORTON & P. LOWE, eds. Description of Agri–environmental Policies in Central and Eastern European Countries,* pp. 179–224. D3 Report of the Central and Eastern European Sustainable Agriculture (CEESA) Project submitted to the EU Commission. Newcastle, University of Newcastle.

Birds Directive (79/409/EEC). 1979. *European Council Directive of 2 April 1979 on the conservation of wild birds. 79/409/EEC.* Official Journal of the European Union L103, 25/04/1979.

Commission Regulation (EC). 2002. Commission Regulation No 445/2002 of 26 February 2002 laying down detailed rules for the application of Council Regulation (EC) No 1257/1999.

Environmental Law of the Czech Republic. 1992. Act No 114/1992 on Nature and Landscape Protection. In *Law Collection* No 28/1992, Prague, p 66.

Habitats Directive (92/43/EEC). 1992. European Council Directive of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. Official Journal of the European Union L206, 22/07/1992.

Law on the Protection of Agricultural Land. 1992. Act No. 334/1992 on Protection of Agricultural Land Resources. In *Law Collection* No 28/1992, Prague.

LEADER. 1998. Council Regulation 4253/88 [Article 11] and 4254/88 [Article 3(2)] published as Commission Notice in the Official Journal L374, 31/12/1998, p. 20.

Ministry of Agriculture (MoA) of the Czech Republic. 2001. Government Decree No. 500/2001. MoA legislation webpage: http://81.0.228.45/default.asp? ch=76&typ=1&val=13907&ids=0.

PRAZAN, J., RATINGER, T. & KRUMALOVA, V. 2002. Nature Conservation and Landscape Management in the White Carpathians Protected Landscape Area. *In A. Zellei, M. Gorton & P. Lowe, eds. Alternative Concepts of Agri–environmental Policies in Central and Eastern European Countries*, pp 2–12. D9 Report of the Central

and Eastern European Sustainable Agriculture (CEESA) Project submitted to the EU Commission. Newcastle, University of Newcastle.

Rural Development Regulation (1257/99/EEC). 1999. European Council Regulation No 1257/1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF) and amending and repealing certain Regulations. Official Journal L160, 26/06/1999.

SAPARD Programme. 1999. Council Regulation (EC) No 1268/99 of 21 June 1999 on Community support for agriculture and rural development in the applicant countries of Central and Eastern Europe in the pre–accession period.

SCHLÜTER, A. 2001. Institutioneller Wandel und Transformation. Restitution, Transformation und Privatisierung in der Tschechischen Landwirtschaft. (Institutional Change and Transformation. Restitution, Transformation and Privatization in Czech Agriculture). Aachen, Shaker.

SZABÓ, G., BALÁZS, K. & PODMANICZKY, L. 2001. Agri—environmental Policy in Environmentally Sensitive Areas in Hungary. *In A. ZELLEI, M. GORTON, P. LOWE & D. MINOIU, eds. D6 Report of the Central and Eastern European Sustainable Agriculture (CEESA) Project submitted to the EU Commission, pp. 35-52. Newcastle, University of Newcastle.*

ten BRINK, P., MONKHOUSE, C. & RICHARTZ, S. 2002. *Promoting the Socio–Economic Benefits of Natura 2000.* Background Report for the European Conference on Promoting the Socio–Economic Benefits of Natura 2000. Brussels, 28–29 November. London, Institute for European Environmental Policy.

VEEN, 2001. Interactions between Agriculture, Environment and Nature. In: F. M. BROUWER, D. BALDOCK & C. LA CHAPELLE, eds. *High level Conference on EU Enlargement: The Relation between Agriculture and Nature Management*, Wassenaar, 22–24 January.

ZELLEI, A., GORTON, M. & LOWE, P. 2002. A Comparative Analysis of the Czech, Hungarian and Slovenian Case Studies on Landscape Management in Marginal Areas. *In A. ZELLEI, M. GORTON & P. LOWE, eds. Alternative Concepts of Agri—environmental Policies in Central and Eastern European Countries,* pp 13–26. D9 Report of the Central and Eastern European Sustainable Agriculture (CEESA) Project submitted to the EU Commission. Newcastle, University of Newcastle.