

Provision of environmental goods on potentially abandoned land: the White Carpathian protected landscape area

Ratinger, Tomas; Krumalova, Veronika

Veröffentlichungsversion / Published Version

Forschungsbericht / research report

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:

SSG Sozialwissenschaften, USB Köln

Empfohlene Zitierung / Suggested Citation:

Ratinger, T., & Krumalova, V. (2002). *Provision of environmental goods on potentially abandoned land: the White Carpathian protected landscape area*. (CEESA Discussion Paper, 6/2002). Berlin: Humboldt-Universität Berlin, Institut für Wirtschafts- und Sozialwissenschaften des Landbaus, Fachgebiet Ressourcenökonomie. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-112896>

Nutzungsbedingungen:

Dieser Text wird unter einer Deposit-Lizenz (Keine Weiterverbreitung - keine Bearbeitung) zur Verfügung gestellt. Gewährt wird ein nicht exklusives, nicht übertragbares, persönliches und beschränktes Recht auf Nutzung dieses Dokuments. Dieses Dokument ist ausschließlich für den persönlichen, nicht-kommerziellen Gebrauch bestimmt. Auf sämtlichen Kopien dieses Dokuments müssen alle Urheberrechtshinweise und sonstigen Hinweise auf gesetzlichen Schutz beibehalten werden. Sie dürfen dieses Dokument nicht in irgendeiner Weise abändern, noch dürfen Sie dieses Dokument für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen.

Mit der Verwendung dieses Dokuments erkennen Sie die Nutzungsbedingungen an.

Terms of use:

This document is made available under Deposit Licence (No Redistribution - no modifications). We grant a non-exclusive, non-transferable, individual and limited right to using this document. This document is solely intended for your personal, non-commercial use. All of the copies of this documents must retain all copyright information and other information regarding legal protection. You are not allowed to alter this document in any way, to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public.

By using this particular document, you accept the above-stated conditions of use.

**PROVISION OF ENVIRONMENTAL
GOODS
ON POTENTIALLY ABANDONED LAND –
THE WHITE CARPATHIANS PROTECTED
LANDSCAPE AREA**

TOMÁŠ RATINGER, VERONIKA KŘŮMALOVÁ

**CEESA Discussion Paper No. 6 | 2002
ISSN 1616-9166**

ABSTRACT

At the beginning of the transition, the economic decline of agriculture partially relaxed the pressure on the wildlife. However, the policy continued to concentrate on regulating the intensity of production rather than creating incentives to produce environmental qualities. The structural adjustment process in agriculture caused the low return (poor) land to be released from production, especially, in protection zones with severe environmental restrictions. Land abandonment resulted in a rapid degradation of wildlife and landscape in places where these natural values were legally protected.

The article examines the organisation of the provision of landscape and wildlife in the White Carpathians protected landscape area after 1997, when the new agricultural legislation and policy recognised compensations for restrictions and has gradually introduced incentives to cultivate potentially abandoned land. It was found that there was more than one governance structure, and that these were not necessary supporting each other. Our investigation concluded that solving the conservation problem is not separable from the rural development problem of the region, and therefore, that there is a need for participation of local community in terms of contributing producers but mainly consumers of high natural values.

About the authors

Tomáš Ratinger is a senior researcher and head of the Agricultural and Rural Development Department at the Research Institute for Agricultural Economics (VUZE) in Prague.

Contact: ratinger@vuze.cz

Veronika Krůmalová is a researcher in the Agricultural and Rural Development Department at the Brno branch office of the Research Institute for Agricultural Economics (VUZE).

Contact: krumalova@cscnet.cz

CEESA Discussion Papers are reports prepared by members of the CEESA research network or external authors working on similar topics. The papers have received limited reviews. Views and opinions expressed do not necessarily represent those of the CEESA research project. Comments are highly welcome and should be sent directly to the authors.

ISSN 1616-9166 (Print)

ISSN 1616-9174 (ONLINE)

CONTENTS

1	INTRODUCTION.....	4
2	THE WHITE CARPATHIANS.....	4
3	ENVIRONMENTAL VALUES IN THE WHITE CARPATHIANS.....	6
4	THE APPROACH.....	7
5	PROPERTY RIGHTS ON LAND AND NATURE ASSETS	7
6	GOVERNANCE STRUCTURE STEMMING FROM ENVIRONMENTAL LEGISLATION (LA PLA).....	9
7	GOVERNANCE STRUCTURE TO ADMINISTERATE / EXECUTE INCENTIVES OF PROGRAMMES OF THE MOA – AGRICULTURAL AGENCY OF MOA	10
8	ATTITUDE OF ACTORS TO CONSERVATION AND FARMING.....	12
9	CONCLUSION.....	15
	LITERATURE	16

ABBREVIATIONS

AA	Agricultural Agency of the Ministry of Agriculture
CEEC	Central and Eastern European Countries
ICMK	Information Centre of Moravske Kopanice
LA PLA	Local Administration of the Protected Landscape Area
MoA	Ministry of Agriculture
MoE	Ministry of Environment
MP PLA	Management Plan of the Protected Landscape Area
PLA	Protected Landscape Area

1 INTRODUCTION

Improving environment has been one of most urgent priorities of almost all Central and Eastern European Countries since political changes in 1989/1990. As in many of them also in the Czech Republic the initial effort concentrated on settling down new environmental legislation. Quite naturally, the environmental policy put the emphasis on increasing number of regulations on polluters (Ratinger, Prazan, 1999). Agriculture felt rather unaffected by environmental policy in since its economic decline reduced the ability of farmers to apply polluting inputs. On the other hand, the positive role of agriculture in rural environment remained unrecognised and the agricultural policy did not formulate clear agri-environmental objectives and measures during the early stage of transition (Ratinger, 1994). The change came in the middle of 1990s; first, the Czech agricultural policy looked for new objectives and measures after the final act of UR GATT limited its market support objectives (Ratinger, Slaisova, 2000), second, the already realistic accession to the EU called for quick harmonisation of policies (CAP EU already modified by McSharry reform) Thus the policy, in which main driving force for modifying rural environment stems from government (Ministry of Agriculture) run incentive systems in which farmers and landowners are the agents of environmental change (Falconer, 2000) has entered the domain of regulatory environmental policy.

The White Carpathians case study examined the organisation of the provision of environmental goods (landscape and wildlife) after 1997, when the agricultural and environmental policies have mixed. It was expected that splitting competencies between the Ministry of Agriculture (MoA) and the Ministry of Environment at the national level continued in the same division at the very local implementation level – hence, that there might be more than one governance structure, and that these were not necessary supporting each other. We also supposed that local (rural) population might claim that most of the attributes of property rights to nature reside with them and demand involvement in formulation of conservation – local development priorities and in organisation of the conservation provision.

After reviewing in short a history and structure of agriculture in the White Carpathians and explaining the environmental values of the region we are briefly mentioning the approach we have adopted. In the paragraph 5 we concentrate on institutional environment, particularly, on legislation and delineation property rights to land and the nature assets. In the paragraphs 6 and 7 we are explaining organisation of the provision of environmental goods in the White Carpathians and we are also discussing its development, strength and weaknesses. The paragraph 7 is devoted to attitudes and competencies of actors in the local social arena. A lesson which can be learn from the current organisation of the provision of landscape and wildlife in the case region is summed up in the concluding paragraph.

2 THE WHITE CARPATHIANS

The White Carpathians (Bile Karpaty in Czech language) are a mountain area in east Moravia on the border with Slovakia. Agriculture moved in quite late – with Walachian colonisation which cut or burned down forests in the 16th and 17th century. Poor soil shaped agriculture towards pasture farming with cattle and sheep, while only small strips of land were ploughed for little cereals and potatoes. Lack of information and education kept low input and low mechanisation farming practices in the remote (marginal) area of the White Carpathians even in the first half of 20th century. The extensity

of land cultivation resulted in a specific symbiosis of agriculture and wildlife. However, during the collectivisation in 1950s and the next four decades the White Carpathians experienced intensification of agriculture. Particularly, concentration of milk and beef cattle increased, they moved from pastures to sheds and meadows became subjected to inadequate application of fertiliser and use of mechanisation to boost the harvest of grass and hay. To stop the consequent adverse effects on biodiversity the Protected Landscape Area (PLA) was established in the White Carpathians in 1980.

Table 1 Land in the White Carpathians

	Total area		Agricultural land		The share of AL on TA
	'000 hectare	Percentage	'000 hectare	Percentage	
Zone I	11.2	16%	4.0	10%	36%
Zone II	17.1	24%	5.6	14%	33%
Region White Carpathians	71.5		39.8		56%

Source: Management Plan PLA White Carpathians (1996)

The protected area extends on 71.5 thousand hectares, more than half is agricultural land. Protected landscape areas are usually divided in 4 zones according to severity of restrictions. In the case study we focused on the most valuable zones I and II with (legal) restrictions on the intensity of production and treatment requirements. We refer to the whole protected area as the region White Carpathians, while PLA White Carpathians is reduced only to zones I and II in the text.

Since the transition, the market adjustment (economic decline) of agriculture has partially relaxed the pressure on the Carpathian wildlife. In the first half of 1990s, the recession of milk and beef markets resulted in lower average concentration of cattle per hectare and farm. On one hand, it has allowed positive extensification of production and animals have started to appear on pastures again. On the other hand, the least productive land (hardly accessible meadows and often with restrictions on application of fertilisers) became having almost zero marginal value for those farmers who were not exposed to the animal feed stress anymore¹. Thus, the interest to employ valuable meadows in production dropped and they were let idled. It is estimated² that uncultivated area might reach 5% of agricultural land in the region in the end of 1990s. The new agricultural policy, launched in 1997, has gradually introduced incentives for cultivating marginal

Table 2 Farm structure in White Karpaty

Farm size category	Share in the number	Share in the area	Interviewed farms
Above 500 ha	0.2%	48%	6
10 - 500 ha	0.8%	16%	4
2 - 10 ha	20.1%		2
0.5 – 2 ha (household plots)	78.9%		
Farms with less than 10 hectares	99.0%	32%	

Source: ICMK, 2001, CEESA project

¹ Note that collective and state farms were subjected to animal feed stress in the past because of irrational central commands for keeping cattle.

² Information Centre Moravske Kopanice, 2000.

land in contrast to environmental policy continuing to rely extensively on restrictions and regulations.

The current farming structure in the White Carpathians is similar to the rest of the country; a few large farms over 500 hectares (0.2 percent of farms) operate almost a half of the agricultural land in the region, while 99 percent of farms (farms under 10 hectares) cultivate only a third of the area. Farms differ not only in size, but in their business (existence) objectives and in the way and extent they affect landscape and wildlife and other rural amenities.

Little revenue and direct consumption of products supplement the income of part-time farm households. Extensive orchards are next to the houses of most of the inhabitants of the region. Occasionally (and out of the zone I) they are accompanied by ploughed strips with potatoes and cereals. Some part-time farmers returned to traditional keeping a bull which grazes in the circle around the stick to which is it tightened. Small and medium commercial farms are usually family type farms, run by pensioners or persons close to retirement. These farmers mentioned the revival of their parent farm as their main business objective. The both groups of individual farming expressed their fond for rural-farm livelihood. From this perspective they are naturally committed to providing landscape. Large commercial farms seek activities generating profit, hence, responding sensitively to market or policy incentives. They are rarely situated entirely in the protection zones I and II, often they have their fields also in sub-mountain region and even lowlands down to the White Carpathians. Thus, their business is to large extent diversified to intensive food and fibre production and extensive environmental quality production.

3 ENVIRONMENTAL VALUES IN THE WHITE CARPATHIANS

Landscape and biodiversity in the White Carpathians are recognised as high natural values at national and international level³: Meadows belong to the most rich-species plant associations in Europe (about 70 species of vascular plants per m²). Their vegetation is characterised by a huge mosaic of meadow, bordering and forest plant associations and by a rich occurrence of both xerophile and humid species. Dominant type of rich-species meadows vegetation is *Cirsio-Brachypodium pinnati association* (in Hornacko region) and *Anthoxantho-Agrostietum association* (in Kopanice and Valassko-Kloboucko region). Protected species on these meadows are following: *Ophrys fuciflora*, *Anacamptis pyramidalis*, *Orchis mascula*, *Orchis militaris*, *Orchis ustulata*, *Traunsteinera globosa*, *Klasea lycopifolia*, *Pedicularis exaltata*, *Danthonia alpine*, *Orchis morio*, *Dactylorhiza sambucina*, *Coeloglossum viride* etc.

While all historical factors responsible for high species richness in the White Carpathians are not completely known, it is well documented (Tlustak 1972, Hillier et al. 1990, Willems et al 1993, Huber 1994, Wilson et al. 1995, Willems and Van Nieuwstadt 1996) that application of fertilisers, mulching, and idling reduce species diversity considerably within even a short time.

³ The White Carpathians Protected Landscape Area was included in the UNESCO list of European Biosphere reservation in 1996.

According to Klimes et al. (2000) regular mowing of meadows is the right (and probably the only) alternative for their sustainable management. Stopping such a management leads to an expansion of high-grown and bulky plants with a negative impact on species diversity.

4 THE APPROACH

Institutional change in the area of agri-environmental co-ordination (e.g. landscape and wildlife provision) can be understood as a response to technological, biological and economic factors on one hand and social and political influences on the other (Hagedorn et al., 2002). In order to analyse the relationships and interplay of these factors we adopted the conceptual framework of institutional economics as outlined by Bromley (1991) in general and by Slangen (2000) particularly for the CEESA project. For the White Carpathians case study, the approach was structured into three levels of investigations: First we dealt with external conditions framing the environmental good provision problem (declining agricultural markets; land reforms, agricultural and environmental legislation); Second we identified the local social arena and actors engaged in (participating in, promoting or hindering) the provision of landscape and wildlife; And finally and with the most emphasis we investigated actors competencies and interactions from the point of view how the provision of landscape and wildlife is actually organised. The data and information were obtained from documents of organisations involved in policing the provision of landscape and wildlife (Ministry of Agriculture, Ministry of Environment, regional Agricultural Agency, Local Administration of Protected Landscape Area) and from semi-structured interviews with actors.

5 PROPERTY RIGHTS ON LAND AND NATURE ASSETS

In the case study our attention was paid to three goods (assets) –agricultural product (conventional or ecological), land and landscape and wildlife. Property rights over these goods changed during the last decade. In the effect of market liberalisation and commercial reforms farmers (as all other entrepreneurs) acquired economic property rights over their “food & and fibre” output. Since that, farmers’ incomes have depended on selling their products not on discretion of central planners. Land reforms (Land Law, 229/91) returned titles to land to original (pre 1948) owners and their heirs in 1992-1993. Since distributional aspects were usually superior to efficiency in land reforms in CEECs (Buckwell et al. 1997) streaming benefit from farming the land to operators/owners tended to be enforced quickly and backed up by support policies, while less attention was paid to the other attributes of property rights. In the case of the Czech Republic, Ratinger and Rabinowicz (1997) listed four outstanding problems with delineation of property rights to land: i) the lack of identification of plots in terrain, ii) need for consolidation of divided property due to inheritance, iii) permanent access to own land iv) and unidentified/inactive owners, probably, heirs of original owners. We found that access to land was a common and frequent dispute amongst individual farmers in the White Carpathians and that there was no institutional arrangement for sorting out these disputes but the court. However, to our case study are relevant mainly points ii) and iv) as it will become apparent later. Quite frequent occurrence of unidentified/inactive owners in the region can be associated with long lasting migration of population out of the White Carpathians. The heirs of original owners, now living far away, are either not aware about the existence of their property or their personal ownership was terminated to the extent that envisage benefit is lower than the cost to grasp the assets.

The Law on the Protection of Agricultural Land (334/1992, a revised version 231/1999) has created a legal framework for dealing with agricultural land. It states among others that the owner/user is obliged to use “proper” (not polluting) farming practices, maintain or improve soil quality and not to change land use (arable, permanent grassland etc.) without an approval of the agricultural land protection authority.

Landscape and nature are of twofold character – a product as well as a resource. In the case of a product we deal with non-rival and partly non-excludable good (Slangen, 2001, 13). We distinguish between the intrinsic value of the diversity and existence of species on one side and aesthetic value of landscape and visible richness of the nature on the other side. We would argue that meadows in the White Carpathians provide public goods to the global society in the form of the former and to the local society in the form of the later⁴. This distinction seems to be essential because it has implication for the governance structure.

In the case of a resource the rivalry exists between intensive (high private return) farming consuming environmental qualities (causing social loss) and conservation maintaining or enhancing environmental qualities (generating social benefit) requiring extensive (low private return) farming and abandonment (zero private return) causing degradation of environmental qualities (social loss). We may consider it as a common-property resource (Ostrom, 1990) but with reservation, because it is not actually separable from the product as well as from the land which, in contrast, is purely private property. Obviously, it can be added to the list of Ratinger and Rabinowicz (1997) as an further outstanding problem in the delineation of property rights to land and its nature component, maybe valid not only for transitional economies. Bromley and Hodge (1990) would argue that these rights should reside with the local or regional community and in turn the right to land use (for the EU countries) while land reforms in CEECs insist on the establishment of “clear” private property rights to land (Buckwell, Mathijs, Swinnen 1997).

All land as well as all activities related to the nature in protected landscape areas are subjected to environmental legislation (Law 114/1992) and the local administration of protected landscape area (LA PLA). The legislation for protected landscape areas recognises direct regulations and contracting for preserving landscape and wildlife. The instruments are specified in details in the Management Plan (MP PLA), which LA PLA is obliged to elaborate. The direct regulations in PLA White Carpathians include restrictions on application of fertilisers and chemicals, restrictions on land use (e.g. meadows cannot be converted into arable land). The requirement of grassland management is not explicitly mentioned in the legislation – however, it can be seen as implicitly included in “proper” farming practices. This is obviously a weak point – such a requirement can hardly be enforced. Contracting is used for maintaining the highest natural values (a special treatment of the most valuable meadows) or for enhancing improvements with considerable cost. Regulations in protected landscape areas were initially taking off of property rights without compensations. As pointed out by Slangen (2001, pp 25), large extent of uncompensated regulations on resources would result in their incomplete or inefficient use. The result of uncompensated regulations was not only the loss of income, but the incomplete use (idling, abandonment) of land reduced the provision of landscape and wildlife in the White Carpathians in the early 1990s.

⁴ For an analogous example see Hanley, Shogren, White, 1997, pp. 43.

Lately launched agricultural legislation (Agricultural Law 252/1997, and following decrees on multi-functionality of agriculture) have corrected for it. Particularly the Decree 505/2000 recognises compensations to regulatory taking off in landscape protected areas (as specified in LAW 114/92 and MP PLA).

The legislation does not assume that at least part of property rights to the nature assets might reside with local community in the protected landscape area. Local community is not entitled to take part in decisions included in the management plan of PLA. Local authorities are just left to be informed. Also the control over agricultural land protection (Law 231/1999), which normally belongs to local authorities (municipality or borough council), is significantly restricted in the protected area.

6 GOVERNANCE STRUCTURE STEMMING FROM ENVIRONMENTAL LEGISLATION (LA PLA)

Environmental legislation is implemented by the local administration of protected landscape area (LA PLA). The competencies and range of tasks of this body have increased as significantly as the extent of conservation requirements towards farmers and local communities since 1992. In the effect, LA PLA has had to change its character: from wholly scholarly organisation to more administrative and executive one. LA PLA prepares the management plan, monitors and sanctions (land users') departures in fulfilment of restrictions and duties.

The management plan should be central in organising the provision of L&W. It seems it was the intention of the legislator, but, since neither the legislator was clear in how far it is compulsory for actors, nor it is the outcome of negotiations with actors (incl. AA MoA, local authorities) it is rather an internal planning document of LA PLA, a guideline for officers at present.

Rather than in sanctioning improper practices LA PLA sees its role in permanent and patient education of agents acting in the White Carpathians. This is done in two ways – dissemination of general information through media and in co-operation with NGOs and in mutual communication with farmers, representatives of municipalities and the other agents. LA PLA noticed increasing interest of farmers as well as municipalities in information and exchanging opinions on conservation practices over the last decade.

However, our investigation noticed that some information might be purposely biased toward changing farmers behaviour in farmers' expense: in order to get more environmental quality LA PLA officers argued (and actually persuaded) that applying fertilisers (in zones where it is allowed) was not economical, while there were studies (Vrkoč, 1996) asserting the opposite. Those interviewed farmers, who cultivated meadows in the investigated area before 1990s, confirmed a significant drop in the yield and nutritional value of grass and hay after stopping fertilising. In principle, the reduction of application of fertilisers can be seen in the conflict with land legislation (231/1999) if the years before 1990 are considered as a reference period for "maintaining fertility".

Most contracts for meadow treatments are initiated by farmers, except a few targeted to very special places. Financial resources of LA PLA (from the budget of MoE) are limited, therefore, LA PLA can make contracts over relatively small area, and hence, has to

be selective. On the other hand, land users have already been discouraged, because high transaction costs associated with delayed payments and still more demanding administrative procedure⁵ outweigh even the very high subsidy per hectare. Thus farmers are interested in contracts with LA PLA, particularly, when they wish to turn degraded (often previously abandoned) land back into meadows or pastures.

In contrast to arrangement of incentives when providing monitoring and finding improper treatment on a particular parcel, LA PLA strictly process from the identification of an owner (in the cadastral office) and the owner lead them to the operator. It is obviously an inefficient system, since there are thousand landowners but much less operators⁶. Officers from LA PLA explained that this approach reflects the fact that in some cases over 60% of land lease contracts are not written. There might be doubts about the accuracy of this argument. Obviously, the applicant for subsidies has to document that he is either the owner or tenant on that particular land. We understand that LA PLA cannot register changes in land lease, however, a simple evidence of applications for MoA programme might yield quick access to the operator. The other dimension of the observation of the absence of written contracts is that landowners have not wanted to secure their property rights. This is probably because there is no or little income streaming to them – rather duties have been left to tenants.

The further and also already mentioned phenomenon is that there are still some owners who have not grasped their property rights at all. In this case, LA PLA has to deal with tenants.

7 GOVERNANCE STRUCTURE TO ADMINISTRATION / EXECUTE INCENTIVES OF PROGRAMMES OF THE MOA – AGRICULTURAL AGENCY OF MOA

In large scale, protection of landscape and wildlife has been encouraged by subsidies from the budget of the Ministry of Agriculture. Initially (1997-2000) it was support to landscape management⁷; in 2001, it was replaced by compensations for environmentally friendly practices in less favoured areas and areas with environmental restrictions (LFA payments, GD 505/2000). In practice, both are (were) a weak management agreements⁸ having the character of classical contract (Ratinger, Krupalova 2001). The distinction between them rests in the specification of requirements; the former support programmes defined required or allowed practised on grassland while the later one compensates for higher costs resulting from restrictions or duties imposed by the environmental legislation. Regional offices of the MoA (AA⁹) are responsible for administering the programme – contracts. To get this support farmers have to document that their plots are in PLA. The recent Decree 505/2000 requires documentation of applicant's compliance with PLA regulations. LA PLA is the authority, which confirms both. While LA PLA has the exact evidence of parcels in the protected area, concerning the compliance, LA PLA can only confirm that there was no conflict in the recent past.

⁵ Number of pages of the application form increased dramatically (from 5 to 15) over the last few years.

⁶ For example, there are 1700 owners of land in the cadaster Certoryje (700 hectares), but just one operator.

⁷ Governmental Decree 24/1998, 344/1999.

⁸ For definition, we refer to Slangen (1997, 511).

⁹ They are called Agricultural Agencies.

While subsidies administered by LA PLA are available for any land user or provider of the environmental service, subsidies for landscape maintenance from the budget of MoA are available only for those land operators, who have at least 0.5 hectare of agricultural land and livestock with the minimum density 0.15 livestock units per hectare and pigs and poultry cannot contribute by more than one third to this figure. Thus, owners/operators of land having no livestock are effectively excluded from the support¹⁰. To defend the position the officers of AA argued that since mulching was not the appropriate practice on Carpathian meadows the on farm consumption of grass and hay was the only plausible way how to dispose them.

Some owners of land in order to get the subsidies started cattle or sheep production. The interviewed local inhabitant (a teacher) with 4.5 hectares of meadows had 3 heads of cattle (a cow and 2 heads of young cattle) to comply with the requirement of minimum livestock units per hectare. Livestock production represented considerable work (and time) and investment in animals – spending of resources which could be alternatively used in buying even simple mechanisation and mowing grass and drying hay. To meet the “grass management” requirements of LA PLA (of the legislation) and not dealing with livestock small landowners will rent their land.

Despite the fact that the protection governance has been given to LA PLA by the Law 114/91, incentives of the Ministry of Agriculture and their conditions determine farmers’ activities in large extent. Minimum livestock units induce more or less commercial farming with relatively sophisticated marketing (beef market). This kind of “prescribed” farming seems not to be economically viable at the moment or at least the conversion is costly. Therefore, farmers have to look for supplementary assistance. At the moment they are attracted by suckle cow premium, by the premium for cattle or sheep on the pasture and by payments for ecological production. In the case of later farmers are driven into even more sophisticated marketing. In the effect, the transaction producing and delivering the public good of landscape and wildlife is becoming complex with quite a high degree of uncertainty given by the underdeveloped or unknown market for ecological products. Ecological farming also requires considerable human capital.

Asset specificity is the key determinant in transaction cost economics (TCE). In Williamson’s theory it refers to the fixed costs related to a transaction or better to the low opportunity costs that assets have for an alternative use (Vernimmen et al., 2000, pp330, Williamson and Masten, 1999). Management requirements¹¹ represent fixed costs per hectare of meadows in the I. and II. zones of PLA, hence, they contribute to high specificity of the assets (Slangen, 2000). In the effect, such a land would tend to be leased for a low rent or even left idled. However, MoA payments for landscape management compensate for these fixed costs, and perhaps, more than compensate. Particularly, when mounting subsidies, agricultural operators can get reasonably high return to the land. In contrast, being effectively excluded from the MoA scheme small pieces of land have kept very low opportunity cost when withdrawn from the unified area of large farms. Together with little lease alternatives due to local domination of one or very few very large farm it has caused that rents remained low, untouched after the introduction of the MoA support schemes. One interviewed entrepreneur commented the situation: “there

¹⁰ Note that hiring contractual service is no feasible option for landowners.

¹¹ Regular mowing and limits on the application of fertilisers.

were attempts of landowners to internalise the landscape management subsidies into the rent, but we calmed them quickly suggesting withdrawing their land.”

We can consider such a renting for nothing as a form of land abandonment. At this stage the landowner will not be concerned how his/her land is managed. But there is a more important dimension of the problem; if the owner of land is not rewarded for providing public goods then it suggests that landowner’s property rights are completely neglected in the system. In the other words the environmental quality is completely accounted to the livestock activity.

In 1997 there was no livestock condition in the landscape management scheme. Firms providing the grassland management appeared. These firms, often based out of “grassland areas”, provided contractual service for landowners who made the deal with the agricultural agency. On one hand, even small landowners were not left aside the income distribution, on the other hand, because of lacking local knowledge and operating on too large scale environmental services of these firms were rather poor.

Until recently, AA lacked capacity to monitor all plots to which subsidies were assigned, hence there was a high risk of hidden actions of farmers. In 2000, AA monitored the region by aerial screening¹² for the first time and LA PLA was invited to take part in the evaluation. Rather than having found completely untreated meadows the screening shown that farmers claimed the support not only for cultivated area but also for bands and strips of meadows already degraded (with shrubs and young trees). This falsely declared area accounted up to 20 percent of the total declared area. AA claimed the subsidy being proportionally returned, but the misbehaviour was not penalised. It was evident from interviews that land users (farmers) were becoming aware about this new monitoring capacity now.

The management plan (MP PLA) should be settled for the period of 10 to 15 years (Law 114/1991) while the agricultural programmes are stated annually and actually have changed almost each year for the last decade. The full consistency between MP PLA and current agricultural support programmes will hardly be achievable; LA PLA cannot take into consideration agricultural support programmes, since they are not know to the horizon of the management plan; And there are too many management plans for the Ministry of Agriculture to be taken into account. To overcome this discrepancy MoA should either settle programmes for longer period (5 years at least) that they can be incorporated into revisions of MP PLA or supply a sufficient number of support programmes each year that fit to any management plan or both.

8 ATTITUDE OF ACTORS TO CONSERVATION AND FARMING

Generally, commercial farmers have exhibited their willingness to provide landscape and wildlife, although, their commitment has been limited to minimum income they need to survive. To large extent, farmers respond to the incentive scheme offered by the government, but, there is also need for getting stimuli from local communities. Interviewed farmers raised often the question for whom they do the environmental service. They reported that they wished to build up their conservationist reputation amongst the

¹² It will be held regularly as a part of the Integrated Administration and Control System (IACS) to control use of agricultural land.

people where they live and undertake, but that it was difficult. All interviewed persons agreed that farmers had not got relevant reputation for their conservation activities amongst local people but that it was urgently needed. Necessary to add that farmers in the White Carpathians in general and interviewed farmers in particular, enjoyed trust and quite a high grade of reputation amongst environmentalists – the LA PLA and NGOs.

A lack of time consistency was often spelled weakness of current support programmes of MoA relating to farming in the White Carpathians, although it improved over last four years. The problem with time inconsistency is that it stimulates strategic and risk averse behaviour of actors (Kydalnd, Prescott, 1977, Slangen 2001, pp 25). While the first years after political changes were characterised by searching for relevant policies and directions changed almost each year, in the late 1990s policy directions more or less stabilised environment protection and rural development, but programmes continued to vary in their sub-objectives, implementation conditions and mainly their financial extent (Ratinger, Prazan, 1999, Jurica, Slaisova, 2001). From this perspective, above mentioned mounting subsidies, could still be the incentive way suggested by the MoA and AA, but farmers participation might rather reflect their tendency to reduce the risk from programme changes, hence, rather to stabilise their income than maximise it. This might be particularly the case of ecological farming to which most of farmers switched without knowing anything about the potential consumers.

If payments of MoA were considered as incentives for producing environmental qualities the area covered (hence, treated) would be of interest of the beneficiary (LA PLA). However, LA PLA does not provide a summary documentation of how much land (its share on the PLA agricultural land) is actually supported from MoA and its spatial and structural distribution. It was obvious from the interview that LA PLA considered the subsidies for landscape maintenance/ compensations for ecological restrictions as helpful, but rather socially than environmentally targeted. This attitude prevented LA PLA officers to take the MoA programmes as a serious effort to promote production of landscape and wildlife. The difference between LA PLA and AA approach can be also illustrated in following way. LA PLA believes that farmers' economic interest is to remove shrubs and trust them to large extent because they should be already enough educated by LA PLA (an also ad hoc monitoring confirmed it). Aerial screening disclosed that hidden actions (cheating) were common. LA PLA has accounted it to a lack of self-enforcing safeguards. It has consequence for the usefulness of the role of price mechanism (Slangen, 2001, 23); No more environmental quality will be delivered if MoA increases the payment per hectare – a phenomenon which is observed by LA PLA and criticised.

Also LA PLA is in some extent worried about the power of AA arising from their (MoA) programmes and the influence which AA may have on conservation priorities, and mainly, on gradually evolving trust-relationship between farmers and LA PLA in the future (Prazan, 2001).

LA PLA feels¹³ its mission in the preservation of high natural values for global society while it almost completely omits the fact that the protected area is first of all the environment of local inhabitants and might be well a place for recreation of urban people.

¹³ This observation is based on the replies of LA PLA officers to our direct question.

Officers of AA criticised LA PLA in little understanding that maintaining human settlement (farmers) in the region would require to compromise economic and conservation interests. For example, AA has already argued that LA PLA should not insist on maintaining hardly accessible remote meadows (for which LA PLA lacks resources) and has suggested converting them into forests. The officers of AA claimed more flexibility of LA PLA, first in accepting the conversion and second, in allowing such afforestation which can be also economically interesting.

From the interviews we can document that local people are concerned about the aesthetics of their environment as well as the wildlife. All interviewed individual farmers as well as managers of farming companies were proud on their achievements in managing landscape with beautiful meadows and pastures and enjoyed it. Some of the farmers returned to the area of the White Carpathians for retirement from plain and more urban areas. However, we observed that the not-commercially-farming part of local communities found it difficult to participate in protection of landscape and wildlife although they their concerns were conformed with the one of LA PLA. This might contribute to the already mentioned reluctance of local people to conservation activities of commercial farmers.

Local authorities (mayors) pointed clearly that they found the nature component and landscape character belonging to local community mainly. Therefore, they had reservations to the current way of organising landscape and wildlife provision. In the current policy of MoA local municipalities missed the role for small local land users and owners who might substantially contribute to the character of the area. They appreciated that MoA compensations saved jobs for local people, while they were extremely critical to the fact that programme designs allowed large commercial farms to exercised power over small landowners. They were sceptical about high standards of the provision of environmental qualities by commercial farms and were critical to careless attitude of LA PLA to it – it concerned certain practices which enhanced diversity of species but not necessary the beauty of the landscape (late grazing of high grass).

There is also communal (or municipal) land. This land is neither operated by the municipality nor collectively used by villagers. Rather it is rented to farmers. A mayor of one village we visited in the zone I indicated that the municipal authority was selective in tenants; they wished tenants who would deliver rather environmental quality than cash. That mayor had a very good notion about the richness of the surrounding nature, but also about the misbehaviour of some inhabitants (or temporary inhabitants - summer or weekend visitors). Both municipal administrations complained about poor competencies in the upkeep of landscape. Actually, they could only indicate some problems to the executive bodies like LA PLA.

Local authorities (municipalities) are concerned about the negative demographic development nowadays. The younger generations have been leaving the area in order to get jobs. It may threaten sustainable landscape management if there are no land users in the future. Therefore, local authorities claim more funds to improve infrastructure and to encourage rural businesses, especially, tourism into remote but beautiful villages. However, tourism expansion should find its way of harmony with rural heritage of the area and with nature protection.

There are several NGOs participating in conservation either directly, providing some conservation services on their costs or indirectly, by increasing awareness of land users and mediating conflicts between farming and conservation. In our cases study we paid attention to NGOs of the second sort. The Czech Association for Nature Protection (CSOP) is closely related to LA PLA. It shares LA PLA perception of the conservation problem and supports LA PLA by organising communication with local, regional, national and international public: issuing leaflets and posters, publishing in media, organising information meetings etc. The Information Centre of Moravke Kopanice (ICMK) concentrates on “how to make farming possible and sustainable in the protected area”. ICMK conservation concerns are in the accord with LA PLA and CSOP, however, their approach differ in the sense that ICMK wants first to understand problems of farmers and then assist them to find the solution which compromises farmer’s income priorities and public conservation interest. ICMK considers support programmes of MoA and MoE/LA PLA as important for enhancing both economic viability of farms and the provision of landscape and wildlife, however, it sees the future sustainability of local agriculture in internalising as much as possible of the environmental value of White Carpathian meadows in “food and fibre” products. Therefore, ICMK encourages farmers to organise themselves to produce and find distribution channels for ecological and locally specific (labelled) products. Our impression is that ICMK has found difficult to identified the target group of consumers and does not see (as we have already mentioned) the complexity of such markets in full extent and transaction costs associated with penetrating such market. Underdeveloped tourism and lack of loyalty of local consumers have caused that ICMK as well as farmers look to far away urban markets. Because of its approach, ICMK enjoys high trust amongst farmers, and amongst officers of AA and LA PLA as well.

9 CONCLUSION

Landscape in the White Carpathians is cultural one and as such is an outcome of human activities in the nature. There is no need to think that there is (was in the past) an optimal state to which it should converge. Rather its state will always depend on values and priorities of current local, national and global population.

LA PLA concern rests in increasing the number of species. Approach mainly relying on uncompensated restrictions and obligations failed to prevent land abandonment (in early 1990s) – while whenever the meadows were kept in cultivation the environmental quality increased. Despite wishing systematically to build trust between LA PLA and farmers, LA PLA neglects their fight for economic viability. Also MoA approach is very constrained with emphasising only the role of commercial agriculture in producing environmental qualities. However, the gradual turning of agricultural policies toward offering the financial backup to the provision of environmental qualities (Ratinger, Slaisova, 2000) is also a challenge for LA PLA to take it seriously and participate in programme/project preparation and implementation.

In this context, local people and businesses and associations should not be excluded from the participation in the formulation of conservation priorities and should be encouraged to provide conservation and invited to evaluation of achievements. Except for very special and valuable places, local people as the primary recipient of the conservation benefit (the consumer of landscape and wildlife) may well decide what kind of

landscape and how much wildlife and landscape should be produced. On the other hand, local communities should respond to conservation activities of farmers, appreciate their effort and give them feedback to which direction concentrate in the future.

The success of conservation effort in the White Carpathians will depend on co-ordination between the administration of PLA and agricultural agency of MoA and their mutual co-operation with local municipalities, regional development agencies and non governmental organisations.

LITERATURE

- Bromley, D. and Hodge, I. 1990. "Private property rights and presumptive policy entitlements: reconsidering the premises of rural policy." *European Review of Agricultural Economics* 17: 197-214.
- Bromley, D. 1991. *Environment and Economy*. Basil Blackwell.
- Buckwell, A., Mathijs, E. and Swinnen, J. F. M. (eds.). 1997. *Land Reform and Farm Restructuring in Central Europe*. Avebury: Ashgate.
- Hagedorn, K., Hintzsche, K. and Peters, U. 2002. "Institutional arrangements for environmental co-operatives: a conceptual framework." In Hagedorn, K. (ed.). *Environmental Co-operation and Institutional Change: Theories and Policies for European Agriculture*. Cheltenham: Edward Elgar.
- Hillier, S. H., Walron, D. W. H. and Wells, D. A. 1990. *Calcareous grasslands-ecology and management*. Huntingdon: Bluntisham.
- Huber, R. 1994. "Changes in plant species richness in a calcareous grassland following changes in environmental conditions." *Folia Geobotanica Phytotaxonomia* 29: 469-482.
- Jurica, A. and Slaisova, J. 2001. *Analyza dotacni politiky MZe, The analysis of the support policy of the Ministry of Agriculture*. Unpublished study in Czech language for the Ministry of Agriculture, Research Institute for Agricultural Economics.
- Kasterine, A. 2001. *Farmer Transaction costs in the provision of public goods in UK Agriculture*. Paper presented at the AAEAC, Chicago, August.
- Klimes, L., Jongepierova, I. and Jongepier, J. W. 2000. *The effect of mowing on a previously abandoned meadow: a ten-year experiment*. Praha: Priroda (in Czech).
- Local Administration of Protected Landscape Area White Carpathians. 1996. *Management Plan of the Landscape Protected Area White Carpathians*. Unpublished material. Veseli nad Moravou (in Czech).
- Ostrom, E. 1990. *Governing the Commons*. Cambridge: Cambridge University Press.
- Prazan, J. 2002. "Evaluation of Agri-environmental policy delivery system at the regional level – the case study in Bile Karpaty." *Zemedska Ekonomika (Agricultural Economics)* 42 (1).
- Ratinger, T. 1994. "Trade off between economic goals of the agrarian reform and environment protection ideas in the Czech Republic." in Schneeberger, W. and Wyrzens, H., K. (eds.). *Naturschutz und Landschaftsplege als agrar- und*

forstpolitische Herausforderung. Wien: Österreichische Gesellschaft für Agrarökonomie.

- Ratinger, T. and Krupalova, V. 2001. *The threat of land abandonment in the Landscape Protected Area Bílé Karpaty*. Paper presented at the Phare ACE Seminar on Sustainable Agriculture in Central and Eastern European Countries: The Environmental Effects of Transition and Needs for Change, Nitra, Slovakia, 10–16 September.
- Ratinger, T. and Prazan, J. 1999. "Country Report on the Present Environmental Situation in Agriculture - Czech Republic." In Central and Eastern European Sustainable Agriculture Network (ed.). *Proceedings of the first workshop*. Rome: FAO.
- Ratinger, T. and Rabinowicz, E. 1997. "Changes in Farming Structures in the Czech Republic as a Result of Land Reform and Privatisation." in Buckwell, A., Mathijs, E. and Swinnen, J. F. M. (eds.). *Agricultural Privatization, Land Reform and Farm Restructuring in Central Europe*. Avebury: Ashgate.
- Ratinger, T. and Slaisova, J. 2000. *The Experience of the Czech Republic with the implementation of its WTO commitments in Agriculture*. WTO – GATT training workshop, Prague, January 10-12.
- Slangen, L. 1997. "How to organise nature production by farmers." *European Review of Agricultural Economics* 24: 508-529
- Slangen, L. 2001. *Sustainable Agriculture – Getting the Institutions Right*. CEESA Discussion Paper No. 1. Humboldt University Berlin.
- Tlustak, V. 1972. *Xerotherm grassland associations of forest-steppe district of the White Carpathians*. Ms. Dipl. Theses, UJEP Brno.
- Vernimmen, T., Verbeke, W. and van Huylenbroeck, G. 2000. "Transaction cost analysis of outsourcing farm administration by Belgian farmers." *European Review of Agricultural Economics* 27: 325-345.
- Vrkoč et al. 1996. *Parametrised yields of crops and grasslands*. A database prepared for the Research Institute for Agricultural Economics, Prague.
- Willems, J. H., Peet R. K. and Bik, L. 1993. "Changes in chalk-grassland structure and species richness resulting from selective nutrient additions." *Journal of Vegetation Science* 1: 91-100.
- Willems, J. H. and Van Nieuwstadt, M. G. L. 1996. "Long-term after effects of fertilisation on above-ground phytomass and species diversity in calcareous grassland." *Journal of Vegetation Science* 7: 177-184.
- Williamson, O. E. and Masten, S. E. 1999. *The Economics of Transaction Costs*. Cheltenham: Edward Elgar.
- Wilson, E. J., Wells, T. C. E. and Sparks, T. H. 1995. "Are calcareous grasslands in the UK under threat from nitrogen deposition? - an experimental determination of a critical load." *Journal of Ecology* 83: 823-832.