PROVISION OF ENVIRONMENTAL GOODS (LANDSCAPE AND WILDLIFE) ON POTENTIALLY ABANDONED LAND – THE CASE OF THE WHITE CARPATHIANS PROTECTED LANDSCAPE AREA.

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ABSTRACT

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

This article examines the organisation of the provision of landscape and wildlife in the White Carpathians protected landscape area after 1997. Since that time, new agricultural legislation and policy has 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 necessarily supporting each other. Our investigation concluded that solving the conservation problem is not separable from the rural development problem of the region; therefore, there is a need for the participation of local communities in terms of contributing not only producers, but mainly consumers, of high natural values.

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ABBREVIATIONS

AA	Agricultural Agency of the Ministry of Agriculture
CEEC	Central and Eastern European Countries
ICMK	Information Centre of Moravske Kopanice (NGO)
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 the environment has been one of the most urgent priorities in almost all Central and Eastern European Countries (CEECs) since the political changes of 1989-1990. As in many of them, the Czech Republic initially concentrated on setting down new environmental legislation. Quite naturally, environmental policy placed an increasing number of regulations on polluters (Ratinger, Prazan 1999). Agriculture felt rather unaffected by environmental policy since its economic decline reduced the ability of farmers to apply polluting inputs. On the other hand, the positive role of agriculture in rural environments remained unrecognised and agricultural policy did not formulate clear agri-environmental objectives and measures during the early stages 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 the quick harmonisation of policies (CAP EU already modified by McSharry reform) Thus the policy in which the main driving force for modifying rural environment stems from government-run (Ministry of Agriculture) 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 were mixed. It was expected that splitting competencies between the Ministry of Agriculture (MoA) and the Ministry of Environment (MoE) at the national level would continue along the same lines down to the very local implementation level. Hence, it was expected that there might be more than one governance structure, and that these were not necessarily supporting each other. We also supposed that local (rural) populations might claim that most of the attributes of property rights to nature reside with them, and thereby demand involvement in the formulation of conservation, especially local development priorities and in organisation of the conservation provision.

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

2 THE WHITE CARPATHIANS

The White Carpathians(*Bile Karpaty* in the 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 cereals and potatoes. The lack of information and education translated into low input and low mechanisation farming practices in the remote (marginal) area of The White Carpathians, even into the first half of 20th century. The extensity of land cultivation resulted in a specific symbiosis of agriculture and wildlife. However, during collectivisation in the 1950s and over the next four decades, the White Carpathians experienced an intensification of agriculture.

Particularly, the concentration of milk and beef cattle increased, and as they moved from pastures to sheds and meadows they became subjected to inadequate application of fertiliser and the use of mechanisation to boost the harvest of grass and hay. To stop the consequential 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 The White Carpathians	71.5		39.8		56%

Source: Management Plan PLA The White Carpathians (1996)

The protected area extends over 71,500 hectares, more than half of which is agricultural land. Protected landscape areas are usually divided into 4 zones according to the 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 The White Carpathians, while PLA The White Carpathians is reduced only to zones I and II in the text.

Since transition, the market adjustment (economic decline) of agriculture has partially relaxed the pressure on Carpathian wildlife. In the first half of 1990s, the recession of milk and beef markets resulted in a lower average concentration of cattle per hectare and farm. On the one hand, this has allowed the positive extensification of production and animals have started to appear on pastures again. On the other hand, the least productive land (barely accessible meadows which often restrict the application of fertilisers) have come to have almost zero marginal value for those farmers who are not exposed to animal feed stress anymore[1]. Thus, the interest in employing valuable meadows in production dropped, and they were left idle. It is estimated[2] that uncultivated areas reached 5% of the agricultural land in the region by the end of 1990s. The new agricultural policy, launched in 1997, has gradually introduced incentives for cultivating marginal land; this is in contrast to an environmental policy which continues to rely extensively on restrictions and regulations.

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

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 half of the agricultural land in the region The White Carpathians, while 99 percent of farms (farms under 10 hectares) cultivate only a third of the area. Farms differ not only in size,

[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.

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. There are extensive orchards 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 have returned to the tradition of keeping a bull which grazes in a circle around the stick to which is it fastened. 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's farm as their main business objective. Both groups of individuals expressed their fondness for the rural-farm livelihood. From this perspective, they are naturally committed to protecting 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, and they often also have their fields in sub-mountainous regions and even lowlands down to The White Carpathians. Thus, their business is to a 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 both the national and international level[3]: meadows belong to the most rich-species plant associations in Europe (about 70 species of vascular plants per m^2). 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. The dominant type of rich-species meadows vegetation is *Cirsio-Brachypodion pinnati association* (in the Hornacko region) and *Anthoxantho-Agrostietum association* (in the Kopanice and Valassko-Kloboucko regions). Protected species in these meadows are the 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 the 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 the application of fertilisers, mulching, and idling reduce species diversity considerably within a short time.
According to Klimes et al. (2000), regular mowing of meadows is the right (and probably the only) alternative for their sustainable management. Stopping such management leads to an expansion of overgrown and bulky plants with a negative impact on species diversity.

4 THE APPROACH

Institutional change in the area of agri-environmental coordination (e.g. landscape and wildlife provision) can be understood as a response to technological, biological and economic factors on the one hand, and social and political influences on the other (Hagedorn et al. 2001). In order to analyse the relationships and interplays of these factors we adopted the conceptual framework of institutional economics as outlined by

[3] The Whaite Carpathian protected landscape area was included in the UNESCO list of European Biosphere reservation in 1996.

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; finally, and with the most emphasis, we investigated actors' competencies and interactions, especially 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 (MoA, MoE, the regional Agricultural Agency, and the Local Administration of Protected Landscape Area) and from semi-structured interviews with actors.

5 PROPERTY RIGHTS TO LAND AND NATURE ASSETS

In the case study we focussed our attention on three goods (assets) – agricultural products (conventional or ecological), land, and landscape and wildlife. Property rights over these goods changed during the last decade. Due to market liberalisation and commercial reforms, farmers (as well as all other entrepreneurs) acquired economic property rights over their "food & and fibre" output. Since then, farmers' incomes haven't depended on selling their products at the discretion of central planners. Land reforms (Land Law, 229/91) returned land titles to their original (pre-1948) owners or their heirs in 1992-1993. Since distributional aspects were usually superior to efficiency in land reforms in CEECs (Buckwell, Mathijs, Swinnen, ed. 1997), streaming benefits 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, Rabinowicz (1997) listed four outstanding problems in delineating property rights to land: i) the lack of identification of plots in terrain, ii) the need for consolidation of divided property due to inheritance, iii) permanent access to own land, iv) and unidentified/inactive owners, probably, heirs of the original owners. We found that access to land was a common and frequent dispute amongst individual farmers in The White Carpathians and that, aside from courts, there was no institutional arrangement for sorting out these disputes. However, for our case study, points ii) and iv) from above are mainly relevant, as will become apparent later. Quite frequently, the occurrence of unidentified/inactive owners in the region can be associated with long lasting out-migration of population from The White Carpathians. The heirs of original owners, now living far away, are either unaware about the existence of their property, or their personal ownership was terminated to the extent that the probability of realising benefits is lower than the cost of grasping the assets.

The Law on the Protection of Agricultural Land (334/1992, revised version 231/1999) created a legal framework for dealing with agricultural land. It states, among other things, that the owner/user is obliged to use "proper" (not polluting) farming practices, to maintain or improve soil quality and not to change land use (arable, permanent grassland etc.) without 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 goods (Slangen 2001: 13). We distinguish between the intrinsic value of the diversity and existence of species on the one hand and aesthetic value of landscape and visible richness of nature on the other. 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 latter[4]. This distinction seems to be essential because it has implications for governance structures.

In the case of a resource, a rivalry exists between intensive (high private return) farming consuming environmental qualities (causing social losses) and conservation maintaining or enhancing environmental qualities (generating social benefits) requiring extensive (low private return) farming and abandonment (zero private return) causing degradation of environmental qualities (social losses). We may consider it a common-property resource (Ostrom 1990), but with reservation because it is not actually separable from the product as well as form the land which, in contrast, is purely private property. Obviously, it can be added to the list of Ratinger and Rabinowicz (1997) as a further outstanding problem in the delineation of property rights to land and its nature component, perhaps not only valid 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 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. These instruments are specified in detail in the Management Plan (MP PLA), which LA PLA is obliged to detail. The direct regulations for PLA The White Carpathians include restrictions on the application of fertilisers and chemicals, and restrictions on land use (e.g. meadows cannot be converted into arable land). The requirement of grassland management in 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 took off of property rights without compensation. As pointed out by Slangen (2001: 25), a 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 also the incomplete use (idling, abandonment) of land, which reduced the provision of landscape and wildlife in The White Carpathians in the early 1990s.

Lately, newly launched agricultural legislation (Agricultural Law 252/1997, and following decrees on multi-functionality of agriculture) have corrected for it. Particularly, 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 a part of the property rights over nature assets might reside within the local community in the protected landscape area. The local community is not entitled to take part in decisions included in the management plan of PLA. Local authorities are merely left to be informed. Also, the control over agricultural land protection (Law 231/1999) which normally belongs to local authorities (municipality or borough council), has been significantly restricted in the protected area.

[4] for an analogous example see Hanley, Shogren, White, 1997, pp. 43.

6 GOVERNANCE STRUCTURE STEAMING FROM ENVIRONMENTAL LEGISLATION (LA PLA)

Environmental legislation is implemented by the local administration of a protected landscape area (LA PLA). The competencies and range of tasks of this body have increased significantly since 1992, and now include the extent of conservation requirements towards farmers and local communities. In effect, LA PLA has had to change its character: from a wholly scholarly organisation to a 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 this was the intention of the legislator; but since the legislator was unclear in how far the plan is compulsory for actors, and because the plan isn't the outcome of negotiations with actors (incl. AA MoA, local authorities), it is more of an internal planning document of LA PLA; that is, a guideline for officers at present.

Rather than merely sanctioning improper practices, LA PLA sees its role in the 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 other agents. LA PLA noticed the increasing interest of farmers, as well as municipalities, in exchanging information and opinions on conservation practices over the last decade.

However, our investigation noticed that some information might be purposely biased toward changing farmers' behaviour at their own expense: in order to increase environmental quality, LA PLA officers argued (and actually persuaded the farmers) 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 the 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. The financial resources of LA PLA (from the budget of MoE) are limited, therefore, LA PLA can make contracts over only a relatively small area, and hence, must 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 procedure[5] 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 arranging incentives when providing monitoring and finding improper treatment on a particular parcel, LA PLA has a strict process for identifying an owner in the cadastral office; the owner then leads them to the operator. It is obviously an inefficient system since there are thousands of landowners but far fewer operators[6]. Officers from LA PLA explained that this approach reflects the fact that in some cases over 60% of land lease contracts are not written. Doubts can be raised about the accuracy of this argument. Obviously, the applicant for subsidies has to document that

[5] The number of pages of the application form increased dramatically (from 5 to 15) over the last few years.

[6] For example, there are 1,700 land owners in the cadaster Certoryje (700 hectares), but just one operator.

he is either the owner or tenant on that particular piece of land. We understand that LA PLA cannot register changes in land lease; however, the simple evidence found on an application for the MoA programme might yield quick access to the operator. The other dimension of the absence of written contracts is that landowners have not found it necessary to secure their property rights. This is probably because there is little or no income streaming to them – rather, these duties have been left to tenants.
An additional, and previously-mentioned, phenomenon is that there are still some owners who have not grasped their property rights at all. In these cases, LA PLA has to deal with tenants.

7 GOVERNANCE STRUCTURE FOR ADMINISTRATE / EXECUTE INCENTIVES OF PROGRAMMES OF THE MOA – AGRICULTURAL AGENCY OF MOA

On a large scale, the protection of landscape and wildlife has been encouraged by subsidies from the budget of the Ministry of Agriculture. Initially (1997-2000) it was designed to support landscape management[7]; 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) weak management agreements[8] having the character of a classical contract (Ratinger, Krumalova 2001). The distinction between them rests in the specification of requirements; the former supports programmes defined, required or allowed practiced on grassland, while the latter compensates for higher costs resulting from restrictions or duties imposed by the environmental legislation. Regional offices of the MoA (AA[9]) are responsible for administrating the programme, that is, contracts. To get this support, farmers have to document that their plots are in PLA. The recent Decree 505/2000 requires documentation of an 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.
While subsidies administered by LA PLA are available for any land user or provider of 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 of 0.15 livestock units per hectare; pigs and poultry cannot contribute more than one third to this figure. Thus, owners/operators of land having no livestock are effectively excluded from support[10]. To defend this position, officers of the 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 to dispose of them.
Some owners of land, in order to get the subsidies, started cattle or sheep production. An interviewed local inhabitant (a teacher) with 4.5 hectares of meadows had 3 heads of cattle (a cow and 2 heads of young cattle), in order to comply with the requirement of minimum livestock units per hectare. Livestock production represented considerable work (and time) and investment in animals, especially the spending of resources which could be alternatively used in buying even simple mechanisation, or mowing grass and drying hay. To meet the "grass management" requirements of LA PLA (of the legislation) and not have to deal with livestock, small landowners will rent their land.

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[7] Governmental Decree 24/1998, 344/1999.

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

[9] Called Agricultural Agencies .

[10] Note that hiring contractual services is not a feasible option for landowners.

Despite the fact that protection governance has been given to LA PLA by the Law 114/91, to a large extent, incentives from the MoA and their conditions determine farmers' activities. Minimum livestock units induce more or less commercial farming with relatively sophisticated marketing (beef market). This kind of "prescribed" farming doesn't seem 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 a suckle cow premium, the premium for cattle or sheep on the pasture and by payments for ecological production. In the latter case, farmers are driven into even more sophisticated marketing. In effect, the transactions associated with 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, even better, to the low opportunity costs that assets have for an alternative use (Vernimmen et al. 2000: 330; Williamson and Masten 1999). Management requirements[11] represent fixed costs per hectare of meadows in zones I and II of PLA; hence, they contribute to high specificity of the assets (Slangen 2000). In effect, such land would tend to be leased for low rent or even left idle. However, MoA payments for landscape management compensate for these fixed costs, and perhaps more than compensate. Particularly when receiving subsidies, agricultural operators can get a reasonably high return from the land. In contrast, being effectively excluded from the MoA scheme, small pieces of land have kept very low opportunity costs when withdrawn from the unified area of large farms. That, together with few lease alternatives due to local domination of one or very few large farms, has caused rents to remain low, even untouched after the introduction of the MoA support schemes. One interviewed entrepreneur commented on the situation: "There were attempts of landowners to internalise the landscape management subsidies into the rent, but we calmed them quickly by suggesting they withdraw from their land."

We can consider such 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 landowner is not rewarded for providing public goods, this suggests that a landowner's property rights are completely neglected in the system. In other words, environmental quality is completely counted through livestock activity.

In 1997 there was no livestock condition in the landscape management scheme. Then firms providing grassland management appeared. These firms, often based out of "grassland areas", provided contractual service to landowners who made deals with the agricultural agency. On one hand, even small landowners were not left outside the income distribution; on the other hand, because of the lack of local knowledge and operating on such a large scale, these firms were rather poor.

Until recently, AA lacked the 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 screening[12] for the first time, and LA PLA was invited to

[11] Regular mowing and limits on the application of fertilisers.

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

take part in the evaluation. Instead of finding completely untreated meadows, the screening showed that farmers claimed support not only for cultivated areas but also for bands and strips of meadows already degraded (with shrubs and young trees). These falsely declared areas accounted for up to 20 percent of the total declared area. AA claimed the subsidy was being proportionally returned, but the misbehaviour was not penalised. It was evident from interviews that land users (farmers) were beginning to become aware of this new monitoring capacity.

The management plan (MP PLA) should be settled for between 10 to 15 years (Law 114/1991), while the agricultural programmes are stated annually and actually have changed almost every year for the last decade. Full consistency between MP PLA and current agricultural support programmes will hardly be achievable; LA PLA cannot take into consideration as-yet unknown agricultural support programmes, and there are too many management plans from the Ministry of Agriculture to be taken into account. To overcome this discrepancy, the MoA should either set programmes for longer periods (5 years at least), so they can be incorporated into revisions of MP PLA, or should 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 a willingness to provide and protect landscape and wildlife, although their commitment has been limited to the minimum income they need to survive. To a large extent, farmers respond to the incentive scheme offered by the government, but stimuli is also needed from local communities. Interviewed farmers often raised the question for whom do they provide the environmental service. They reported that they wished to build up their conservationist reputation amongst the people where they live, but that it was difficult. All interviewed persons agreed that farmers hadn't received recognition for their conservation activities amongst local people, but that it was urgently needed. It is necessary to add that farmers in The White Carpathians in general and interviewed farmers in particular enjoyed trust and quite a high reputation amongst environmentalists – the LA PLA and NGOs.

A lack of time consistency has often spelled weakness in current support programmes of the MoA relating to farming in The White Carpathians, although it has improved over the last four years. The problem with time inconsistency is that it stimulates strategic and risk-averse behaviour of actors (Kydalnd, Prescott 1977; Slangen 2001: 25). While the first years following political change were characterised by searching for relevant policies and directions that changed almost every year, in the late 1990s policy directions more or less stabilised regarding environment protection and rural development. Still, programmes continued to vary in their sub-objectives, implementation conditions and mainly their financial extent (Ratinger, Prazan 1999; Jurica, Slaisova 2001). From this perspective, the above-mentioned mounting subsidies could still be the incentive 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 particularly be the case of ecological farming, to which most farmers switched without knowing anything about the potential consumers.

If payments from MoA were considered as incentives for producing environmental qualities, the area covered (hence, treated) would be of interest to 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, nor its spatial and structural distribution. It was obvious from the interviews that LA PLA

considered the subsidies for landscape maintenance/ compensations for ecological restrictions as helpful, but more socially than environmentally targeted. This attitude prevented LA PLA officers from accepting the MoA programmes as a serious effort to promote production of landscape and wildlife. The difference between LA PLA and the AA approach can also be illustrated in the following way: the LA PLA believes that the farmers' economic interest is to remove shrubs, and to trust LA PLA to a large extent because they should already be educated enough by LA PLA (also, ad hoc monitoring confirmed it). Aerial screening disclosed that hidden actions (cheating) were common. LA PLA has credited this cheating to a lack of self-enforcing safeguards. This has consequences on 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 criticized.

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

LA PLA feels[13] its mission is the preservation of high natural values for the global society, while it almost completely omits the fact that the protected area is first of all the environment of local inhabitants and might well be a place for recreation. Officers of AA criticised LA PLA for not understanding that maintaining human settlement (farmers) in the region would require a compromise between economic and conservation interests. For example, AA has already argued that LA PLA should not insist on maintaining barely accessible remote meadows (for which LA PLA lacks resources) and has suggested converting them into forests. The officers of AA claimed more flexibility than 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 producing them. 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 non-commercially-farming part of local communities found it difficult to participate in the protection of landscape and wildlife although their concerns conform with those of LA PLA. This might contribute to the already mentioned reluctance of local people towards the conservation activities of commercial farmers.

Local authorities (mayors) pointed out clearly that they found the nature component and landscape character to mainly belong to the local community. Therefore, they had reservations about the current way of organising landscape and wildlife provision. In the current MoA policy, 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, but they were extremely critical about the fact that programme designs allowed large commercial farms to exercise power over small landowners. They were also sceptical about the high standards of the provision of environmental qualities by commercial farms and were critical to the careless attitude of LA PLA to it – it concerned certain practices which enhanced diversity of species, but not necessarily the beauty of the landscape (late grazing of high grass).

[13] Based on the response of LA PLA officers to our direct question.

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 zone I indicated that the municipal authority was selective in tenants; they wished for tenants who would deliver environmental quality rather than cash. That mayor had a very good notion about the richness of the surrounding nature, but also about the mis-behaviour of some inhabitants (or temporary inhabitants such as 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 find jobs. This may threaten sustainable landscape management if there are no land users in the future. Therefore, local authorities claim more funds are needed to improve infrastructure and to encourage rural businesses, especially tourism into remote but beautiful villages. However, tourism expansion should achieve harmony with the rural heritage of the area and with nature protection.

There are several NGOs participating in conservation either directly, by providing conservation services at their own cost, or indirectly, by increasing the awareness of land users and mediating conflicts between farming and conservation. In our case 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's perception of the conservation problem and supports LA PLA by organising communication with the local, regional, national and international public by 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 differs in the sense that ICMK wants first to understand the problems of farmers and then assist them in finding the solution which compromises farmer’s income priorities and public conservation interests. ICMK considers the 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 The White Carpathians 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 it difficult to identify the target group of consumers and does not see (as we have already mentioned) the complexity of such markets in the full extent, especially with the transaction costs associated with penetrating such a market. Underdeveloped tourism and the lack of loyalty of local consumers have caused ICMK as well as farmers to 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

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

LA PLA's concern rests in increasing the number of species. This approach mainly relies on uncompensated restrictions; but its obligations failed to prevent land

abandonment in the early 1990s. Still, while the meadows were kept in cultivation environmental quality increased. Despite wishing systematically to build trust between LA PLA and farmers, LA PLA neglects the farmer's fight for economic viability. Also, the MoA approach is very constrained, 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 seriously and participate in programme/project preparation and implementation.

In this context, local people, businesses and associations should not be excluded from participation in the formulation of conservation priorities. Instead, they should be encouraged to provide conservation, and invited to evaluate its 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 the conservation activities of farmers, and appreciate their effort by giving them feedback on directions to concentrate on in the future.

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

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