

Analysis of the real economic needs of Strážovské Mountains Protected Landscape Area and possibilities of the local private sector in a trimmed model of the existence of this protected landscape area

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Abstract. The present work deals with the analysis of the real economic needs of Strážovské Mountains PLA and possibilities of the local private sector in a trimmed model of the existence of Strážovské Mountains PLA. The aim of the work is to analyse the real economic needs of Strážovské Mountains PLA and to determine possibilities of the local private sector in a trimmed model, to characterise Strážovské Mountains PLA, the organisation and financing of the PLA and to analyse revenue of the private sector in tourism in Strážovské Mountains PLA.

Key words: nature protection development, PLA financing, PLA organisation, nature protection principles.

Strážovské Mountains PLA

Strážovské Mountains Protected Landscape Area was added to the network of large area protected areas in 1989. It was declared with the aim of securing the protection and rational use of the most preserved parts of the natural environment of the Strážovské and Súľovské Mountains, today selected as equal geomorphological units, in the past considered jointly as the Strážovské Highlands.

The territory of the PLA is 29,366.39 ha, of which 78% is composed of forests, 19% agricultural land and the remaining 3% is made up of built up areas and bodies of water. Besides Strážovské Mountains PLA itself, with the 2nd degree of protection, Strážovské Mountains PLA Administration also has within its territorial jurisdiction territory with the 1st degree of protection located in Bytča, Ilava, Považská Bystrica and Púchov districts.

According to Act no. 543/2002 on nature and landscape protection and its later amendments and supplements, Strážovské Mountains PLA Administration has the function of a nature and landscape protection expert organisation. It issues expert opinions as a basis for pronouncements and decisions of the authorities of the state nature and landscape protection administration, ensures the practical care and management of Strážovské Mountains PLA and of protected species of flora and fauna, protected trees and habitats of national and European significance. It elaborates, adminis-

ters and leads select documentation of nature and landscape protection and runs a rehabilitation station for injured and ill animals (equipped especially for raptors and owls). It conducts and administers surveys, research and monitoring of individually protected elements of nature and landscape and contributes to and secures the use of a nature and landscape protection information system. It secures eco-educational and promotional activities, in which it cooperates with primary and secondary schools in the region. Strážovské Mountains PLA Administration has employees (Table 1) also in the position of rangers, who operate, directly in the field, monitoring of the observance of legislation in the nature and landscape protection sector with possible sanctions, closely cooperate with the police, with the Slovak Environmental Inspectorate and with regional environmental offices. They also contribute to the marking of individually protected elements of nature and landscape protection and monitoring of protected flora and fauna. Strážovské Mountains PLA Administration also methodologically coordinates the activities of members of the voluntary nature protection rangers.

The PLA is divided from the Javorníky massif and Bielé Karpáty to the northwest and west by Považské Vale, to the east it is delineated from Malá Fatra by Žilinská Basin and to the south the PLA continues into the southern part of the Strážovské Mountains: Trenčianska Upland subunit, the southern part of Zliechovské Uplands, Nitrické Mountains and Malá Magura. This southern part of the mountain range belongs to the territorial jurisdiction of Ponitrie PLA administration (Prievidza and Bánovce nad Bebravou districts) and Bielé Karpaty (Trenčín district). In Prievidza district, in Nitrické Mountains orographic subunit, a project has been elaborated for another large protected area, Nitrické Mountains, which includes Rokoš National Nature Reserve and Jankov výšok Nature Reserve. The highest peak in the territory is Strážov (1,213m a.s.l.). It is the only place of occurrence of maple-beech montane forest (a priority habitat of European importance). Strážov NNR was declared on its territory in 1981 with an area of 480.01 ha.

Diverse climatic, geological, geomorphological, hydrological and soil conditions created conditions for the evolution of valuable plant communities as well as unique types of landscape in a relatively small area. The Súľovské and Strážovské Mountains, in contrast to other mountain ranges of the central Carpathian arc, do not have a central ridge. They are rutted in all directions with a dense network of basins and deep valleys. The not incon-

Strážovské Mountains PLA Administration			
director		1	
technical-administrative worker		1	
department of protected natural elements			department of landscape protection
zoologist	1	landscape architect	1
botanist	1	forester	1
inorganic chemist	1	ranger	2
ranger	1		

Table 1. Organisational scheme of the PLA.

siderable geomorphological segmentation is also shown by the range of altitude in a relatively small area: the elevation of the peaks and ridges varies between 600 – 1,213m a.s.l, valleys and basins 315 – 500m a.s.l. The major part of the territory is formed by upland to highland uninhabited, forested countryside (90%); the lower parts are deforested and transformed into meadows and pasture (10%). The orientation of the range in a north-south direction enables the occurrence of thermophilic as well as montane species of flora and fauna.

Possibilities of the local private sector in a trimmed model of Strážovské vrchy PLA

Tourism in Strážovské vrchy PLA

The private sector in this area is focused on tourism and that mainly through providing accommodation and restaurants and the offer of services connected with this such as skiing, cycle-tourism, hiking, cave visits, spas and various attractions. Another significant sector is forestry management, extraction of non-renewable resources and exploitation of water sources.

The Strážovské Mountains are part of the Fatra-Tatra area landscape unit. They lie in the area between Trenčín and Žilina. Along its longest axis, from south to northeast, the range reaches a length of 50 km, a width of more than 30 km and its total area is 900 km square kilometres.

In the west and northwest the Strážovské Mountains are bounded by Považské Vale, to the north by the Súľovské Mountains (these are included in Strážovské Mountains PLA as a separate part) and Žilinská Basin, to the northeast by Malá Fatra, to the east by Hornonitrianská Basin, to the south by the Podunajská Heights and to the southwest in a short section by Považský Inovec. Height above sea level varies from 300 to 1,213m, which is reached by the highest mountain, Strážov. Strážov juts out between the villages of Čičmany and Zliechov. Its rocky peak offers a magnificent view. The mountain and its surroundings have been declared a state nature reserve, by which limestone-dolomite cliffs with preserved communities of beech and relict pine forests of primeval forest character are protected. More and more signs are appearing in the Strážovské Mountains marking the forest as private property with entry forbidden. A very unpleasant surprise, with which we can meet for example in the vicinity of Vápeč Mountain or near Kopec village.

The whole range is divided into four sub-units: Zliechovská Highlands, Nitrické Mountains, Trenčianská Upland and Malá Magura. In light of its rich geological construction, formed of limestones and dolomites, the Strážovské Mountains can boast of 17 recorded caves and 4 abysses.

Trenčín, Ilava and Bojnice, castles from the Middle Ages attractive for tourism, are used to this day, there is a magnificent ruin of one of the oldest Slovak castles, Uhrovec, and Košeca Castle is gradually disappearing. For those who give priority to rest “in the position of a bishop” and do not have a problem to shell out a little extra money, the spas in Bojnice and Trenčianské Teplice should be mentioned.

The north part of the range, immediately adjoining the above mentioned Súľovské Mountains and Lúčanská Malá Fatra, is preferred for hiking. This is a little bit of a pity, because the southern and central part also offers enough marked routes. The Strážovské Mountains are marked by a dense water network with enough abundant sources of drinking water recorded.

The best known village in this area is Čičmany. The very nicely preserved village architecture with ornamentation is worth a visit. The rest of the settlements of the local mountain valleys are equally as nice, being composed of original houses, and the people you meet here are extremely nice.

Analysis of private sector revenue in tourism in Strážovské Mountains PLA

The analysis represents a survey of the business environment, i.e. basic evidence of legal entities located in and trading within this territory and also a model selection of these legal entities. Trading entities are divided into: accommodation facilities, restaurants and other catering facilities, ski-lifts and other activities. Other activities represent guiding activities, mountain rescue service, sports equipment hire and other services. There follows an evaluation of the annual economics of selected entities. The output of this analysis serves on the one hand to create an overview of the structure of the business environment in the study area as well as a potential source of revenue for the operation of National Park Administrations.

Accommodation facilities in the model area are divided into: hotels, guesthouses, cottages, home-stays and campgrounds. The following Table 2 shows the number of individual facilities, the number of beds and average price per bed.

The average visitation in accommodation facilities represents 30 nights per year. On the basis of the table shown above accommodation alone represents revenues of 1,035,150 euros per year.

Dining and refreshment facilities in the model area are divided into: restaurants, pubs, taverns, pizzerias and bars. The number of individual facilities and their average monthly revenues are shown in the Table 3.

Facilities	Number of facilities	Number of beds	Average price per bed in €
Hotels	22	600	25
Cottages	119	290	12
Guesthouses	45	375	15
Homestays	82	410	10
Campgrounds	8	1,040	7

Table 2. Number of individual facilities, the number of beds and average price per bed.

Facilities	Number of facilities	Capacity	Average monthly revenue per visitor in €
Restaurants	55	35	7
Pubs	40	20	2
Taverns	8	35	4
Pizzerias	12	28	6
Bars	6	25	11
Kiosks	95	65	3

Table 3. The number of individual facilities and their average monthly revenues.

The average monthly revenue in dining and refreshment facilities represents 38,386 euros per visitor per year. Average visitation is 10%. At this visitation rate revenue per year is 4,600,632 euros.

Ski-lifts. There are 15 ski-lifts in the model area with an average capacity of 30,800 people per hour. The average price of a ticket in 2008 was 450 SKK i.e. 15 euros. The average period of operating a ski-lift is 120 days per year, 8 hours per day. At an uptake of 10% this represents revenues of 4,435,200 euros.

Other small businesses in SM PLA

- Bonums (medium-sized recreation facilities in the PLA)
- Žilina road construction (Jablonové quarry directly within the PLA, Beluša quarry in the immediate vicinity of the PLA)
- Ladce cement works (in the vicinity of the PLA)
- Čičmany-Mier Rajec ski centre (large ski centre in the PLA)
- Podskalie recreation facility (large accommodation facility in the PLA)
- Ski Mojtín (large ski centre in the PLA)
- Small-scale agribusinesses

Analysis of forestry extraction management and agriculture in the study area

The Strážovské Mountains extend over c. 900 km², of which around 700 km², which is 70,000 ha, are commercial and protection forests. The value of 1 ha of forest in a felling cycle is approximately 33,194 euros and a forest matures after roughly the 60th year of life. The approximate revenue from the whole territory can be calculated with the fraction 1/60, which is the number of productive ha in the study area, which is 1,167 ha. From this it follows that 1,167 ha multiplied by 33,194 euros has a value of 38,726,333 euros. These data are however only a guide but serve for the model budget.

Another contribution to revenue directly related to the PLA is production of meadows, pastures and arable fields in the PLA itself and its buffer zone. The size of these plots is c. 10,000 ha, while revenue from a hectare of agricultural land, including a state contribution, is c. 209 euros, which represents a revenue of 2,090,000 euros from agricultural production.

From the above it follows that annual revenues from forestry management and agriculture in the study area could together theoretically reach 40,816,333 euros.

Evaluation of the results and proposal of a suitable model

From the model calculations of annual revenues from accommodation and catering facilities, ski-lifts and chair-lifts as well as from forestry and agriculture we can infer total revenues from economic activities in the study area at the level of 50,887,315 euros per year.

The annual needs of Strážovské Mountains PLA Administration for an ideal structure (Papšo 2009) would be at the level of around 200,000 to 250,000 euros (current budget is 110,370 euros, Table 4). Expressed as a % of the revenues recorded this is only 0.5%. This figure is 254,437 euros per year, which completely covers the needs of Strážovské Mountains PLA Administration in an ideal form.

The model assumes complete legal status and autonomy of decision-making in accordance with the legal norms of nature and landscape protection. As an ideal model for legal status we can use the model of universities and colleges, lying directly under departments of the ministry, circumventing local or political influence. Of course the adoption of legislation is also presumed to secure the % levy from the revenues of entities whose trading is closely linked with the study area, whether by land register or directly through the assessment of the added value of the area. In our case 0.5% of total revenues appears to be an ideal model.

Income from the PLA Administration's own trading as an independent legal entity (issuing appraisals and decisions, guiding activities and activities from the exercise of sanctions) would thus be additional income for the expanded reproduction and improvement of the infrastructure of Strážovské Mountains PLA.

The not insignificant fact remains in connection with this model, that the state budget would be completely unburdened by the operating costs of PLA and NP Administrations.

Common expenditure	2006	2007	2008	
			111	45
Salaries, fees, service income and other personal payments	1,663	1,820	2,036	
Insurance and contribution to insurance company	609	664	739	
Goods and services	929	932	432	118
Travel expenses	102	91	98	
Energy	190	141	61	31
Materials	141	289	75	26
Transport	206	217	131	34
Routine and standard maintenance	76	4	12	1
Rent				
Services	214	190	55	26
Common transfers				
Capital expenditure				
Number of employees	9	9	9	

Table 4. The annual needs of Strážovské Mountains PLA Administration.

In conclusion, however, the fact has to be stressed that the model is very difficult to implement under the given legal and political standards, but it can serve with a number of data for the creation of a real model of economic independence of Strážovské Mountains PLA Administration.

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