CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

FACULTY OF ENVIRONMENTAL SCIENCES Department of Applied Ecology

ANALYSIS OF HUMAN THREATS TO NATURE CONSERVATION IN THE LIPTOV REGION PART OF THE LOW TATRAS

Author: Bc. Edita Vyšná Supervisor: Berchová Kateřina, doc. Ing. Ph.D. Study programme: Applied Ecology Academic year: 2012/2013

I hereby declare that this thesis is my original work and it has been written by me in its entirety. I have acknowledged all sources of information which have been used in the thesis.

.....

.....

In Prague

Signature

Acknowledgments

I would like to thank everybody who was helpful or supportive. I will be always grateful for what you did for me in the stressful times when writing my thesis.

In the first place I would like to thank my supervisor doc Kateřina Berchová. Not only for here leader skills needed to deal with disorganized individual like myself and for her expert advice, but also for allowing me to write about topic that concerns other country than Czech Republic. My thesis was therefore accepted to discuss an important issue in Slovakia, for which I am most grateful.

I would further like to thank my family- mum, dad, Vika, Kiťa, who always believed that the topic I had chosen is a good one and believed that if I really tried hard, the thesis could be of a good quality as well. Especially I owe a big one to Vika, who once prioritized reading earlier stage of my thesis over her PhD work.

Big thanks goes to my friends, who did not leave me to go to the mountains alone doing the field studies, which meant a lot to me. Thank you, Miška, Deniska, Lenka, Ľubko, Janko, Ivko.

I very much appreciated an approach of Mr. Adalbert Mezei, Low Tatras National Park staff member, who was willing to meet me- As a consequence I was introduced a lot of helpful documents at the Office of Low Tatras National Park. I thank also to the leaders of municipalities of Pavčina Lehota, Závažná Poruba and Liptovský Ján for showing the spirit of cooperation.

One of the most important "thank you" goes to Davídek without whom I would never get to defend my thesis.

And last but not least I thank my boyfriend Berto, who was not overall that helpful (which is after all hard to be done through Skype), but he provided me with lovely relaxed calls when I needed to hear that he would love me even if I didn't pass and I am very happy I have him.

Abstract

Conservation biology moved into the spotlight as a crisis discipline. Many treaties, strategies, laws exist on behalf of biodiversity, with an aim to preserve it. They are very strong - on paper. In this diploma thesis documents and policies that are supposed to preserve the biodiversity on the global, national and regional scale are presented. Further biodiversity and its levels and factors they are threatened by are defined. The factors that have a great impact on a valuable region in terms of biodiversity, a northern part of the Low Tatras National Park and its buffer zone, located in the north of Slovakia, are pointed out. Results are based on profound analysis of published and unpublished documents provided by competent bodies, and on terrain works carried out in the study area. The thesis determines to what extent the government, information and market failures promote and represent threats to nature conservation goals in the Low Tatras National Park. Particular focus was given to tourism industry, land use planning, Environmental Impact Assessment process and wood harvesting.

Keywords: biodiversity, threats to biodiversity conservation, governance failures, tourism industry, land use planning, environmental impact assessment

Abstrakt

Biologie ochrany přírody vystupuje v současnosti do popředí jako klíčová biologická disciplína. Existuje mnoho zákonů, strategických dokumentů, podepisuje se mnoho dohod s cílem zachovat biodiversitu a zastavit negativní trend jejího snižování. Předložená diplomová práce ve své první části představuje existující legislativu pro ochranu biodiversity s celosvětovým, národním a regionálním dosahem. Teoretická část definuje biodiversitu, její úrovně a faktory, které ji ohrozují. Výsledky práce jsou zaměřeny na rozbor faktorů ohrožujících hodnotnou biodiverzitu severní části Národního parku Nízké Tatry a jeho ochranného pásma. Závěry jsou založeny na analýze publikovaných i nepublikovaných dokumentů, poskytnutých relevantními orgány v dané problematice a na výsledcích teréních prací. Cílem práce bylo určit do jaké míry mohou tzv. selhání vlády, selhání trhu a asymetrická informace představovat hrozbu pro ochranu přírody v Národním parku Nízke Tatry a jeho ochranném pásmu. Největší pozornost byla věnována oblasti cestovního ruchu, těžby dřeva, územního plánování a procesu posuzování vlivu na životní prostředí.

Klíčová slova: biodiversita, faktory ohrožující biodiverzitu, selhání vlády, cestovní ruch, územní plánování, posuzování vlivu na životní prostředí

Table of Content

Introduction	11
Aim of the thesis	
1Current status of the solved issue both at home and abroad	14
1.1 Biodiversity	14
1.2 Levels of Biodiversity	14
1.2.1 Genetic	14
1.2.2 Species Diversity	15
1.2.3 Ecosystem Diversity	16
1.3 International measures of protection of biodiversity	16
1.3.1 Agenda 21	17
1.3.2 Convention on Biological Diversity	
1.3.3 NATURA 2000	
1.3.4 EIA and SEA	
1.3.5 International status of national park	
1.4 National and Regional measures of protection of biodiversity	
1.4.1 Act No. 24/2006 Coll. on the assessing of environmental influences	
1.4.2 Act 543/2002 Coll on Nature and Landscape Protection	
1.4.3 Land Use Planning	
1.5 Threats to Biodiversity	
1.5.1 Degradation and loss of ecosystems	
1.5.2 Ecosystem Fragmentation	
2 Threats to Biodiversity in the Study Area	
2.1 Bid to organize Winter Olympic Games	
2.2 Tourism industry	
2.3 Harvesting of wood	

2.4 Lan Use Planning
3 Thesis methodology
3.1 Characteristics of Research Area
3.1.1 Geomorphic Characteristics
3.1.2 Climate Characteristics
3.1.3 Flora
3.1.4 Fauna
3.1.5 Biodiversity Conservation Status - National Legislative
3.1.6 Biodiversity Conservation Status- Implemented International Legislative
4 Results and Discussion
4.1 Government failures
4.1.1 EIA
4.1.2 Land Use Planning
4.1.3 Law Implementation
4.2 Information Failure
4.2.1 Public Awareness
4.3 Market failures
4.3.1 Not seeing protected areas as a limit
4.3.2 Misusage of EU funds
5 Conclusion
6 Literature and Sources
7 Annexes

Introduction

One of the first definitions of biodiversity was the definition by Cunningham (1992). He defines biodiversity as "the genetic, species, and ecological diversity of the organisms in a given area." Conservation biology is the science focusing on maintaining and enhancing the biodiversity.

Biological diversity is threatened with extinction when one of two related patterns is observed: a.) when an element is rare or b.) when it is in decline (Trombulak et al, 2004). Nowadays, the number of genetic varieties, species and ecosystems with unfavourable conservation status is increasing. Therefore, conservation biology moved to the spotlight as the science focusing on saving life as we know on Earth (Hunter, 2002).

Recent understandings of biological diversity being crucial for human well-being led to discussions on international and global level. United Nations (1992) acknowledged that planet's essential goods and services depend on the variety and variability of genes, species, populations and ecosystems and that current decline in biodiversity presents a serious threat to human development. Ecosystem level of biodiversity and ecosystem services were estimated to be worth over USD 72 trillion a year – comparable to World Gross National Income (Nelleman and Corcoran, 2010).

Regardless of its value, biodiversity is currently vanishing at an alarming rate all over the world. The rate of extinction is 1000-times higher than what is the natural rate (IUCN, 2010). In 2010, nearly two-thirds of the Earth's ecosystems were considered degraded as a result of damage, mismanagement and a failure to invest and reinvest in their productivity, health and sustainability (Nelleman and Corcoran, 2010).

Despite their importance, biodiversity conservation efforts suffer from several major drawbacks. One of them is the fact that multilateral conventions, laws and treaties protecting biodiversity are strong only on paper. So is true for a treaty with near-universal ratification - Convention on Biological Diversity (CBD). CBD lacks effective means of monitoring and enforcing compliance with its provisions (Bragdon et al, 2008). The experts on environmental law allege that the inherent and diverse character

of biodiversity presents a major obstacle for an effective global regime for biodiversity (Institute for Environmental Security, 2009).

The first part of the diploma thesis discusses the factors responsible for current decline in biodiversity on a global scale. The second part is concerned with major threats to biodiversity on a local scale. Whereas the Carpathanias play a crucial role in the biodiversity conservation in Europe, the study area this thesis deals with lies in the Carpathians, in the Low Tatras mountain range.

The Carpathians are an ecoregion noted for exceptional levels of biodiversity. The Carpathians host Europe's most extensive tracts of montane forest and the largest area of virgin forest left in Europe. The mountain range spreads mainly through the area of Slovakia, Ukraine, Romania - countries that are currently undergoing unprecedented change due to economic transition and European integration (WWF, 2011).

Given the magnitude of the human impact on life on Earth, the literacy of conservation biology ought to be considered one of the cornerstones of good citizenship in any nation (Orr, 2004). The thesis evaluates the conservation literacy of Slovak representatives and citizens. It examines the threats that government, market and information failures pose to biodiversity conservation in the study area.

Aim of the thesis

Aim of the thesis was to determine to what extent the government, information and market failures promote and represent threats to nature conservation goals in the LTNP and its buffer zone.

The objectives were as follows:

To determine to what extent the regulatory processes executed under Act No.24/2006 Coll. on environmental impact assessment relevantly use their power to regulate activities in the the Low Tatras National Park (LTNP) (including its buffer zone)

To determine the role of the land use planning for biodiversity conservation in the study area

To determine the role of implementation of particular laws for biodiversity conservation in the study area

To determine the public intervention in the regulatory processes and the awareness arising from it

To review the collaboration between the business community and nature conservancy to reconcile biodiversity conservation and commerce.

To stipulate to what extent the national and international conservancy status is taken into account when discussing human development in the protected area of LTNP and its buffer zone

To review the character of the activities currently proposed and approved in the LTNP (soft (sustainable)/ hard (non-sustainable forms)

1 Current status of the solved issue both at home and abroad

1.1 Biodiversity

The term biological diversity (often shortened to biodiversity) was first defined by WWF as the life forms on earth including the millions of plants, animals and microorganisms, the genes, they contain as well as the intricate ecosystem they help built into the living environments. Cunningham (1992) defines it as "the genetic, species and ecological diversity of organisms of a given area. Other definition says it comprises the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic systems and the ecological complexes of which they are part of; this includes diversity within species (genetic), between species and of ecosystems (Secretariat of the Convention on Biological Diversity, 2008)

With number of species and ecosystems not at a favourable conservation status increasing, conservation biology, aiming to maintain and enhance biodiveristy, moved to the spotligh as the science focusing on saving life on Earth (Hunter, 2002).

1.2 Levels of Biodiversity

1.2.1 Genetic

Genetic diversity, a key component and fundamental source of biodiversity, is defined as any measure that quantifies the magnitude of genetic variability within a population. Genetic diversity encompasses the components of the genetic coding that structures organisms (nucleotides, genes, chromosomes) and variation in the genetic make-up between individuals within a population and between populations (Gaston, 2010).

It affects ecological processes such as primary productivity, population recovery from disturbance, interspecific competition, community structure, and fluxes of energy and nutrients and thus can have important ecological consequences at the population, community and ecosystem levels. However it is not clear how widely these results apply in nature as studies to date have been biased towards manipulations of plant clonal diversity and little is known about the relative importance of genetic diversity (A.

Randall Hughes, Brian D.Inouye, Marc T. J. Johnson, Nora Underwood and Mark Vellend, 2008).

Within a species, genetic diversity is commonly measured in terms of allelic diversity (average number of alleles per locus), gene diversity (heterozygosity across loci), or nucleotide differences. Large populations tend to have more genetic diversity than small ones, more stable populations more than those that wildly fluctuate, and populations at the center of a species' geographic range often have more genetic diversity than those at the periphery (Hughes et al, 2008).

1.2.1.1 Importance of Genetic Diversity in Conservation Biology

Conservation biology, and the related field of conservation genetics, have also raised awareness of the potential short-term ecological effects of genetic diversity, particularly in small or endangered populations (Lande 1988; Frankham et al., 2002). Low genetic variation in high-profile species such as the cheetah, often resulting from genetic bottlenecks and inbreeding can alter genetic diversity, with ecological consequences such as reducing a population's ability to persist in stressful or changing environments (Frankham et al. 2002).

1.2.2 Species Diversity

Organismal diversity encompasses the full taxonomic hierarchy and its components, from individuals upwards to populations, subspecies and species, genera, families, phyla, and beyond to kingdoms and domains. Measures of organismal diversity thus include some of the most familiar expressions of biodiversity, such as the numbers of species (i.e. species richness) (Gaston, 2010). World species diversity comprises all the taxa living on the Earth, both classified and unclassified.

The idea of maintaining the biodiversity is best explained by an example of species diversity, namely species of charismatic megafauna. Those are animals that have

popular appeal and so can form the basis of conservation campaigns and fundraising drives, e.g. giant panda, tigers, mountain lions and other feline species, eagle species. They are well known, they are vulnerable, possibly critically endangered species. Human society would feel some kind of loss if they went extinct although most of the people would never encounter them (Hunter, 2002). Through these species the idea of intrinsic value of the species is acceptable, obvious and can be derived and applied to species that dont trigger humans' emotions yet.

1.2.3 Ecosystem Diversity

Ecosystem diversity refers to the variety of ecosystems, their organisms and the interactions of those with their environment.

The third group of elements of biodiversity encompasses the scales of ecological differences

from populations, through habitats, to ecosystems, ecoregions, provinces, and on up to biomes and biogeographic realms. This is an important dimension to biodiversity not readily captured by genetic or organismal diversity, and in many ways is that which is most immediately apparent to us (Gaston, 2008).

Conservation biologists often share the idea that the more ecosystems are present, maintained, the more species can be supported. Means also that habitat loss is a direct driver of species loss (UNEP, 2010). The ecosystem approach is a broader framework for planning and developing conservation in an integrated manner. In this context, protected areas fit as one important tool – perhaps the most important tool – in such an approach (IUCN,2010).

1.3 International measures of protection of biodiversity

Bilateral, multilateral and nearly universal treaties and conventions are used to protect the world biodiversity. This fact is based on three main grounds (Hunter, 2002):

- 1. Effective protection is needed to be given to species that migrate and disperse across borders.
- 2. International market is often responsible for wildlife exploitation.
- 3. Benefits from biodiversity and ecosystem services is of international importance. Rich countries of temperate climate zone benefiting from biodiversity should be willing to help protect it in the developing biodiversity-rich countries that do not have appropriate mechanisms and often financial sources to do it all alone and where environmental crime pays.

Biodiversity topic has been put at the top of the political, economic and social agenda. Julia Marton-Lefèvre, Director General of IUCN at the launching ceremony of Year of the Biodiversity said (2010) that "Well managed natural resources are crucial to sustainable development, supporting peaceful communities, encouraging well-balanced economic growth and helping reduce poverty. Protecting biodiversity protects valuable assets that are vital to the global economy." Angela Merkel, German Chancellor (2010), warned at the same event that the world will face "enormous costs" if no action is taken to secure biodiversity.

IUCN (2010) is calling for ambitious but realistic biodiversity targets, which can be clearly measured and put into practice. It also wants more research on the status of biodiversity, more protected natural areas, on land and sea, and closer collaboration with the business community to find new ways of combining conservation and commerce. Greater public awareness of what's at stake if we continue to disturb and destroy ecosystems is also considered to be a high priority.

1.3.1 Agenda 21

In 1992. during The United Nations Conference on Environment and Development (UNCED) in Brazil, Rio de Janeiro, called also Earth Summit, there were five documents signed, one of those being Agenda 21. In its 40 chapters and 800 pages it attempts to embrace the entire environment and development agenda. Chapter 15 is dealing with Conservation of Biological Diversity.

In tha tparticular chapter it acknowledges that planet's essential goods and services

¹⁷

depend on the variety and variability of genes, species, populations and ecosystems and states that the current decline in biodiversity is largely the result of human activity and represents a serious threat to human development (UNEP, 1992).

Agenda 21 is not a legally binding document but a "work plan," or agenda for action. Slovakia is a signatory of Agenda 21. According to the Section Activities, Chapter 15, Agenda 21 (1992) "Governments at the appropriate levels, consistent with national policies and practices, with the cooperation of ..., intergovernmental organizations and, with the support of indigenous people and their communities, non-governmental organizations and other groups, including the business and scientific communities, and consistent with the requirements of international law, should, as appropriate:

Take effective economic, social and other appropriate incentive measures to encourage the conservation of biological diversity....

Take action where necessary for the conservation of biological diversity through the in situ conservation of ecosystems and natural habitats,..., and the maintenance and recovery of viable populations of species in their natural surrounding

Promote the recovery of threatened and endangered species. Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas. "

1.3.2 Convention on Biological Diversity

The Convention on Biological Diversity (CBD) was opened for signature on 5 June 1992 at the United Nations Conference on Environment and Development (the Rio "Earth Summit"). It remained open for signature until 4 June 1993, by which time it had received 168 signatures. It entered into force on 29 December 1993. There are 193 parties to this treaty today. It has 3 main objectives:

- 1. The conservation of biological diversity
- 2. The sustainable use of the components of biological diversity
- 3. The fair and equitable sharing of the benefits arising out of the utilization of genetic resources (CBD Secretariat, 1993)
 - 18

Slovakia is a contracting party to the CBD. The preamble of CBD stipulates (1992) that signatories are responsible for conserving their biological diversity and for using their biological resources in a sustainable manner. Signatories are further concerned that biological diversity is being significantly reduced by certain human activities. Parties note that the fundamental requirement for the conservation of biological diversity is the in-situ conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings. Signatories are determined to conserve and sustainably use biological diversity for the benefit of present and future generations.(CBD, 1992).

1.3.2.1 Enforcement Mechanisms of CBD

CBD is a legally binding treaty. However, as it is stated in The Feasibility Study of Institute for Environmental Security (authors Wybe Th. Douma, Leonardo Massai, Serge Bronkhorst, Wouter J. Veening) (2009) CBD is in comparison with the UNFCCC a weak convention, without strong financial or compliancemechanisms. In order to fill these lacunae recently a discussion has started to develop a so-called Green Development Mechanism for the CBD, analogous to the Clean Development Mechanism of the Kyoto Protocol. However, the inherent and localised diversity of the object of the CBD, in contrast with the homogenous nature of the object of the UNFCCC, measured in units of CO2 and of a limited mount of other GHGs, presents a major obstacle for an effective global regime for biodiversity.

Also, in accordance with the principles of international law states have the sovereign right to exploit their own resources pursuant to their environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction. Although CBD considers the biodiversity a common concern of humanity it is not seen as such according to international law and a state has a sovereign right to dispose of its natural resources. If an aggrieved party does not exist then a dispute over biodiversity cannot be resolved through legal action (Serge Bronkhorst, 2002).

As a framework for international cooperation on biodiversity, the CBD relies on its Parties (national governments) to adopt or change legislation to give effect to the Convention, but its provisions do not generally set specific requirements to be undertaken by them. A number of these requirements are qualified by phrases such as 'as far as possible and appropriate' and 'subject to its national legislation', and some ascribe the near-universal ratification of the Convention to its lack of effective means of monitoring or enforcing compliance with its provisions (Bragdon et al, 2008).

If a dispute under the CBD were ever to be decided by the International Court of Justice, the losing party to the dispute would not necessarily face economic sanctions for not complying with the Court's ruling. This lack of economic consequences for non-compliance with the CBD (and many other multilateral environmental agreements, with notable exceptions such as CITES) is frequently said to give the Convention less 'bite' and does not necessarily calls for compensation and the suspension of concessions in cases of non-compliance (Bragdon et al, 2008).

1.3.3 NATURA 2000

In March 2010, the EU Heads of State and Government set themselves the ambitious target of halting, and reversing, the loss of biodiversity in Europe, halting the degradation of ecosystem services and restoring them in so far as feasible by 2020. In May 2011, the European Commission adopted a new EU Biodiversity Strategy setting out concrete priority measures for achieving this target. The European Natura 2000 Network is a central element of this Strategy. It enables all 27 EU countries to work together within a common framework to conserve Europe's finest nature areas, home also to our most threatened, rare and endemic plants, animals and habitats. The ultimate objective is to ensure that these species and habitats – deemed of european importance - are restored to a favourable conservation status across their natural range within the EU (European Commission, 2011).

Over 26,000 Natura 2000 sites have been designated to date, which makes this the largest coordinated network of protected areas anywhere in the world. (European Commision, 2012).

The sites are not 'fenced-off' protected areas but are open and are often dependent on sustainable human activities and land-use that have shaped and maintained them over the years. Many sites are on farmland and the farmers undertake to manage the land in a specific manner so that the biodiversity is maintained (DG Agriculture and Rural Development EC, 2012).

A recent health check revealed that currently only 17% of the sites are in a favourable state. Some could still face extinction if urgent measures are not taken to reverse their decline (European Commision, 2011).

Slovakia as a member of the European Union (EU) was required to designate NATURA 2000 sites. In NATURA 2000 sites (Special Proection Areas, Special Areas of Conservation) the necessary conservation measures are applied for the maintenance or restoration, at a favourable conservation status, of the natural habitats and/or the populations of the species for which the site is designated.

Among the activities forbidden to be performed in Special Protection Area Low due to their possible harmful effect on birds species subject to Birds Directive include: "Clearcutting forest management". Provisions recommended include: "Prevention of unregulated expansion of lodging facilities and other objects and protection of primeval forests fragments" (The State Nature Cnservancy, p2006).

Activities and objects that can, when performed within, have a negative effect on species or habitats subject to Habitats Directive in SKUEV0302 Ďumbierske Tatry and SKUEV0310 Kráľovohoľské Tatry include: "Construction of cable-cars, outdoor parking lots, covered parking garages over 10 spots, sport centres (outdoor, indoor), golf courses, ski lifts, hotels and motels, chalets with a capacity of more than 20 beds, modification of surface that causes changes in overall apperance or drainage conditions" (The State Nature Conservancy, p2006).

1.3.4 EIA and SEA

Environmental assessment includes Environmental Impact Assessment (EIA) of defined public and private projects and Strategic Environmental Assessment (SEA) of plans and programmes. Yet experience and evidence has shown that EIAs and SEAa carried out across

the EU have so far struggled to effectively integrate biodiversity issues in practice (McGuinn, 2011).

European Commission issued a guidance (distributed across EU in late 2011) that addresses key challenges, such as assessing cumulative effects and dealing with uncertainty and complex concepts including resilience and ecosystem services. A number of tips, tools and resources are provided, including sources of information, assessment methodologies, and an overview of key climate change and biodiversity issues and impacts. The guidance is built upon a set of case studies which distil lessons learnt and practical experience from across the EU. (McGuinn,2011)

1.3.5 International status of national park

LTNP is classified as a national park according to IUCN classification. IUCN defines national park as: "large natural or near natural area set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities.". The surrounding landscapes can have varying degrees of consumptive or non-consumptive uses but should ideally serve as buffers to the protected area (Dudley, 2010).

1.4 National and Regional measures of protection of biodiversity

1.4.1 Act No. 24/2006 Coll. on the assessing of environmental influences

In Slovakia, environmental assessment process is administered under Act No. 408/2011 Coll. amending and supplementing Act No. 24/2006 Coll. on the assessing of environmental influences and on amending and supplementing certain Acts, as amended 1

¹ Act no. 24/2006 Coll. On environmental impact assessment and amending some other laws is discussed in the thesis

²²

Slovak legislation does not require evaluation of the impacts on sites and species of community interest.

1.4.2 Act 543/2002 Coll on Nature and Landscape Protection.

The nature protection in Slovakia is executed under Act 543/2002 Coll on Nature and Landscape Protection.

In line with Article 13 Act 543/2002 Coll on Nature and Landscape Protection, activities forbidden to execute in the second degree of protection include: a) parking and entering by a vehicle outside the settlement boundaries, b) parking or entering by a bicycle outside the settlement boundaries if not using an marked bicycle route.

In line with Article 14 543/2002 Coll on Nature and Landscape Protection, activities forbidden to execute in the third degree of protection include: a) activities forbidden in second degree of protection b) stepping outside the market walking trail c) perform sport activities such as ski touring, skiing, hiking, bivouacing, camping,...outside the settlement boundaries d) activities producing light and noise pollution e) organizing sport, social, hiking events.

In line with Article 15 543/2002 Coll on Nature and Landscape Protection, activities forbidden to execute in the fourth degree of protection include: a) activities forbidden in the second and in the third degree of protection b) clear-cutting forest management practices c)to use fertilizers and other chemical substances d) execution of geological works e) to place a notice board, billboard advertisement.

In line with Article 15 543/2002 Coll on Nature and Landscape Protection, activities forbidden to execute in the fifth degree of protection include: a) activities forbidden in the second, third and fourth degree of protection b) place a construction c)interference with a forest stands.

In line with Article 29 (1) Act 543/2002 Coll on Nature and Landscape Protection the derogation from activities prohibited can be given if:

a) an activity is carried out in connection with the exercise of the state-supervision or other control activities

b) an activity is undertaken in connection with the provisions set out for protected area or its buffer zone

c) current conditions seriously threaten the life or health of a person, property or represents a security threat to Slovak Republic by force

d) an activity is carried out to allow protection of the state border.

In accordance with the Article 40(3), section c) a derogation from species protection would only be forthcoming if there is no satisfactory alternative to the proposed development and that it would not be detrimental to maintaining the population of the species concerned at a favourable conservation status in its natural range. The development must be for the purposes of preserving "public health or safety, or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

1.4.3 Land Use Planning

Pressure on land pre-occupies almost every government, both in developed and developing countries Governments use land-use planning to manage development of land withing their jurisdictions (Verheye, 1997)

Land use policies were formulated to conserve land resources and optimize their production in its largest context. With a continuing degrading land resource base that is clearly finite, national and international institutions focus on promoting of more sustainable and equitable land use. Chapter 10 of Agenda 21 considers that an integrated approach to the planning and management of land resources- more popularly called land use planning- is essential for achieving this (De Wit, Verheye, 2003).

In Slovakia, besides land use plan of villages also Land-Use Plan of regions exist. This kind of strategic document allows to integrate the sustainable development principles into regional legislative. It guides the lower level land- use planning documentation to, first and foremost, to use natural resources in a responsible manner, always having the future generations in mind. In the area of question Land Use Plan of Žilina region and

²⁴

its changes and amendements manages the land resources. The document foresees mainly qualitative development of services and activities in the study area while taking into account the natural value of it:

In its chapters it proposes important steps in pursuit to sustainable development. In Chapter 3.4)...to prefer qualitative development and high-standard amenities regarding sport, mountain tourism and climatic treatment in The Low Tatras National Park.

3.5 follow the need to lower the pressure put on the most attractive tourist centers, one being Demänovská Valley

4.3.1 Taking into account protected areas provisions in areas protected pursuant to national legislation on nature and landscape protection when performing economic activities in these areas, in accordance with the category of protected area and degree of protection afforded to a particular area.

4.3.5 To respect Special Protection Areas classified in accordance with Article 4 of the EC Birds Directive and provisions set out individually for every SPA site when performing economic activities in these areas.

4.3.6 To respect Special Areas of Conservation and manage them in accordance with provisions of the Habitat Directive when performing economic activities in these areas and to manage them in a way that is not harmful to species or habitats subject to legal protection under the Habitats Directive

4.14.2.Not to open up new sport centres, tourist centres and climatic treatment centres in Low Tatras National Park.

4.17 To respect the limits on number of visitors determined in approved land-use plans of communities on behalf of unbiased, factual and not flawed criteria which form the foundation of nature protection and to build new sporting facilities in accordance with approved land use plans

In the villages situated in the buffer-zone of Low Tatras National Park the ideal new pattern of urbanization is the one where new sites are bound mainly to existing dwellings in the foothills. (Pivarči, 2011)

Development of tourist facilities and activities located in or adjacent to NATURA 2000 sites can obtain consent only provided that it will not have direct, indirect or cumulative impact on species or habitat that is subject to NATURA 2000 site protection and will not worsen their conservation status (Toman, 2008)

The most atractive tourist resorts in Demänovská Valley, Závažná Poruba, Jánska Valley and Bocká Valley need to be developed in a qualitative way with high-standard amenities. Increasing the lodging capacity is not desirable when in area outside the settlement boundaries (Toman, 2008).

The original Land Use Plan of Zilina Region (1998) stipulates that the Liptov Region has great potentil. However, the deocument specifically mentions that *"Demänovská Valley has exhausted its potential for further development of tourism."*

1.5 Threats to Biodiversity

Human actions alter ecosystems to a huge extent and species and communities adapted to local conditions might not be able to adapt to these changes. Disruption of communities and ecosystems thus often comes as a trade-off for these modifications, changes in land use. The biggest human-induced threats to biodiversity are as follows: disturbance, habitat destruction, ecosystem fragmentation, degradation due to land use changes, degradation caused by pollution and contamination, global climate change, wildlife exploitation and overharvesting and invasive alien species invasions² (Hunter, 2002).

Amongst the greatest threats Hunter (2002) recognizes policy or government failures (institutional) as significant as well. Policy failures arise due to incentives encouraging harmful action. Tax incentives and subsidies can lead to the market working for the destruction of natural capital. Development policies sometimes indirectly result in natural ecosystems being converted into agricultural or urban landscapes.

² The thesis does not deal with invasive alien species as the invasive species eradication policy is not implemented effectively in Slovakia in general and thus would not be objective to assess threats posed to biodiversity by invasive species in the National Park as the species can spread from areas outside the park

²⁶

The size of the challenge of market failure should not be underestimated: for some services (e.g. scenic beauty, hydrological functions and nutrient cycling) it is difficult even to obtain a profile of demand and supply and to place a monetary value on these services and goods (European Communities, 2008). These goods mostly bypass markets, escape pricing, defy valuation and go unnoticed as positive externalities (Sukhdev, 2008).

Information, government and market failures lie also in the view of biodiversity as a natural resource which further provides for seeing it as a common property resource. Individuals, companies and governments make use of them and in case of disrupting them simultaneously or afterwards they do not pay anything. Such a situation is labelled as tragedy of the commons (Hardin, 1977).

1.5.1 Degradation and loss of ecosystems

As the human population grows, it needs more available land for development of its societies. Ecological footprint increases in every country as well, which means larger areas are needed to address human needs (per capita). Modern agricultural methods and technologies are also a primary cause of habitat loss and ecosystem destruction (Tilman et al., 2002 in UNEP, 2010).Natural habitats are converted into farms, plantations, arable lands, production forests, aquacultures. In 2000 above mentioned systems constituted about 25% of terrestrial area of the Earth (Millenium Ecosystem Assessment, 2005). More than half of fresh water vertebrates species are in decline mainly due to artificial drying up of wetlands and river regulation (Few, 2001). Caribbean coral reefs have been reduced by 80% in three decades (UNEP, 2008).

Deforestation as a loss of ecosystems is considered a major threat to biodiversity because despite the fact that forest make up 6% of the Earth surface and 30% of the Earth land area they are home to majority of species. Tropical forest make up 6% of the land surface and account for about 50% of species. Total forest area continues to decrease, in 2000-2005 it was at 7,3 million hectares per year. Primeval forests account for 36% of total forest area, 6 million hectares are modified or lost every year (FAO, 2007).

1.5.2 Ecosystem Fragmentation

Fragmentation, by definition, implies a reduction in the size of remaining blocks of habitat. The process of habitat fragmentation has three components: an overall loss of habitat; a reduction in the size of remaining habitats; and an increased isolation of habitats (Bennett, 1997).

Other important aspect of fragmentation include:

1. Small fragments are characterised by significant ty bigger 'edge effects' due to high ratio of perimeter lenght to area in comparison to larger areas.

2. The middle of every fragment is closer to the edge than it was in the case of extensive tract before its subdivision (Shafer, 1990).

Isolation of habitats is a fundamental consequence of fragmentation. A range of evidence shows that isolation, and the degree of spatial isolation, have negative impacts on many populations and communities. The rate at which animals recolonize unoccupied fragments is higher for those fragments closer to source areas ((Verboom *etal.* in Opdam 1991; Thomas and Jones 1993; Kindvall and Ahlen 1992 v Bennet for IUCN, 2003). Laurance et al. (2002) found that many Amazonian species avoid even small (<100 m wide) clearings.

Evidence suggests that the species that are most sensitive to habitat fragmentation are those that occur naturally at low densities, or that have some innate dependence on interior habitats, such as large-bodied animals that have large area requirements and species that are high in the food chain. Because of their low population density, small fragments may support only a few individuals or breeding pairs, or for some species the available area may be insufficient for even a single breeding pair (Bennett, 2003). Even large Amazonian national parks such as Manu (Peru, 1.5 Mha) and Jaú (Brazil, 2.3 Mha) are probably too small to maintain viable populations of some top predators as giant river otters (*Pteronura brasiliensis*) (Peres, 2005).

Large tracts of habitat are a scarce and precious resource. It is easy to produce many small patches, but large tracts are essentially irreplaceable and have many intrinsic ecological values. Among those attributes positively correlated with size of habitat tract are the diversity of vegetation types, the likelihood of occurrence of rare or specialized habitats, the richness of plant and animal species, the size of populations and the sustainability of natural disturbance regimes. The maintenance of natural disturbance regimes is particularly important for the long-term viability of national parks and conservation reserves (Pickett and Thompson 1978; Baker 1992).

2 Threats to Biodiversity in the Study Area

2.1 Bid to organize Winter Olympic Games

Poprad-Tatry's³ candidature for organizing the 2006 Winter Olympic Games was not successful. Visions of Low and High Tatras hosting Winter Olympic Games are discussed in Land-Use Plan of Žilina Region (2008) mentioning that active interregional cooperation between Liptovský Mikuláš and Poprad regarding further candidatures to host Winter Olympic Games will be established. If Slovakia is

³ Poprad is a city in the north of Slovakia. I represents the entry to the highest mountain range in Slovakia- High Tatras

²⁹

successful in its bid to host the Winter Olympic Games or other mega sport events, it is proposed that an area of land set aside for building venues and infrastructure needed for that purpose is defined in Liptovský Mikuláš, Závažná Poruba and Demänovská Valley . Especially in Demänovská Valley it is necessary to set up conditions for mass- events with high number of visitors ((ZaD no.3 VUC ZSK, Toman, 2008). The limits on number of visitors to Demänovská Valley determined in approved land-use plan of Žilina Region (1998) is 8400.

In order for Slovakia to organize olympic games, an event would need to be located in national parks. That would represent an unprecedented activity in Europe. As a consequence, nature protection would be watered down by softening the law or by exluding these areas from national parks (Huba, 2013).

Estimated number of visitors per day to Olympic Games events in Low Tatras is 20 000-25000 (Koreň, 1992), much higher than what approved land-use plan states as limits for this valley.

The core of the problem besides cutting down the forests of buffer-zone as well as forests of National Park lies with the anthropization of the area of National Park and disturbance which could affect endangered species such as *Tetrao urogallus, Tetrao tetrix, Rupicapra rupucapra tatrica* as well (Janiga et al, 1993). As a result, the non-production functions of the ecosystems will deteriorate and ecosystems will become more susceptible to abiotic factors, emissions and insect (Midriak, 1993).

2.2 Tourism industry

There are numerous forms of tourism recognized. For the purpose of the thesis we will consider soft tourism (as a form of sustainable tourism) and hard tourism (non-sustainable).

Soft tourism emerged as one of the multiple forms of sustainable tourism in the late 1980's and 1990's, particularly favoured by peripheral areas. The model coincides with conditions of increased economic well-being with decreased travel costs, and sensitivity to the detrimental effects of mass tourism on social- cultural and environmental milieux.

Soft tourism is characterised by small-scale endogenous development and does not place unacceptable burdens on the environment (Lane, 1994).

The planning is done with the view to strenghtening the potential of a particular region, to approaching responsibly a region that generates profit. Local and community- led decision making is favoured, limits and carrying capacity are defined (Meyer, Roháč, 2005).

The soft tourism, which in the study area takes form of, for instance, using walking trails in a sustainable manner is not such a burden when it comes to ecosystem loss and fragmentation. Density of walking trails in National Park Low Tatras is the second lowest of all nine national parks of Slovakia, approximately 0,45 km/km2. However, about 65% of tourist paths are eroded (Gajdoš, 2010).

On the contrary, hard tourism is typified as large-scale developments, often controlled by external actors, with neither little cognizance of the impacts on local cultures and environments, nor connection to them (Slee, 1998).

This form of tourism is further characterized by architectural uniformity, seasonality, outflow of profit from the region and duplicate activities. Activities are performed in pursuit of immediate profit and in line with ,,the more tourists the better". Expert analysis are absent (Meyer, Roháč, 2005).

In the field of accomodation sector, there exists a continuum between hard and soft forms of tourism. The soft tourism is represented by strong local business linkages, limited environmental effects, locally specific small-scale product, for example farm accomodation. On the opposite side of the scale is hard tourism represented by weak social-cultural affinities, significant negative environmental effects, large-scale stardardized product, for example a national/ international hotel chain (Annex 1) (Godde et al, 2000).

The area in question -buffer zone and the Low Tatras National Park- can fit in the definition of peripheral area. Peripheral areas hold assets from which to harvest opportunities. The preconditions for effective peripheral area tourist development, which may be represented for instance by pristine environment or existing wilderness, may

contain within them potential seeds for their destruction, or erosion (Slee, 2001).

The most important tourist resorts in the study area are Demänovská Valley, Vyšná Boca, Nižná Boca, being recognized as tourist centres of international importance. The Changes and Amendments to Land Use Plan of Žilina Region further indicate potential for Liptovský Ján, Liptovský Mikuláš, Liptovská Lúžna and Liptovská Osada to become tourist centres of international importance. Some other villages located in the buffer zone of the LTNP or partly in LTNP were suggested to become centres of national importance, namely being Východná, Važec, Kráľova Lehota, Partizánska Ľupča, Pavčina Lehota, Liptovský Hrádok, Závažná Poruba (Toman,2008).

Demänovská Valley

Demänovská Valley lies within the borders of National Park. There has been a few consenting EIA opinions on development projects in this area recently- 12 since 2007, those being namely:

Recreational Site RESORT Demänovská Valley (Černohous, 2007), Reconstruction and extention of cable car and ski slope Grand-Brhliská (Černohous, 2008), Reconstruction and extention of cable car and ski slope Biela púť (Luciak, 2007), Transition of a ski lift to a cable car Záhradky-Priehyba (Kučeravý, 2008), Restaurant Priehyba (Kučeravý, 2008), Transition of hotel Chopok from apartment hotel to wellness hotel (Koločányová, 2009), Funitel- Transition to modern cable car technology (Lukáč, 2009), Ski Slope Turistická- widening of existing ski slope (Potančok, 2010), Higher Category Hotel in Demänovská Valley (Tencerová, 2010), Linkage of Chopok North and Chopok South and modernisation of Chopok North and Chopok South (Lukáč, 2011), Linkage Biela Púť-Priehyba (Pavlisová, 2011), Tourism Centre Chopok West (Ministry of Economy, p2012). Ski Resort Jasná Nízke Tatry (Demänovská Valley) is considered the problematic ski development according to WWF. In WWF report White Elephants in Green Mountains (2008), 21 ski resorts in Slovakia are amongst 42 altogether in countries Slovakia, Bulgaria (8) and Romania (13) reviewed as problematic, without long-term perspective of relative costs and benefits including economic, social and environmental factors.

Pavčina Lehota

Pavčina Lehota is a village of attractive location. It shares borders with the cadastral area of Liptovský Mikuláš (its suburban part Bodice) in the north, and with Demänovská Valley in the south. The whole cadastral area lies in 2nd to 5th degree of protection, forest land takes up 57% of the cadastral area.

In the Social and Economical Plan of Pavčina Lehota for y. 2003-2013 it is stated that existing geothermal well would be used for the sake of the tourism industry. Local newspapers (December 2011) informs that materials decision support is being prepared for deciding the final location of the wellness centre to-be in the cadastral area of the village.

Further development activities resulted also in Project of Expansion of tourist centre Žiarce. It was given a favourable decision in EIA process in 2008. Ambition to become a ski-centre of upper-regional importance is based on 5 new ski slopes (7 altogether). Area partly takes up sites protected under Birds Directive, but as it represents an edge of SPA Nízke Tatry, it does not host relevant species all year long. The project does not take up habitats of neither national nor community importance. The project does not threaten bird species subject to protection under Birds Directive according to EIA Report (Nižňanský, 2008). In some parts of its highest altitudes the project copies the borders of the National Park.

In the Final EIA Document one of the support sentences for the project's sake states that the ski resort Žiarce would be a great alternative for ski resort Jasná in Demänovská Valley (Nižňanský, 2008).

Liptovský Ján and Jánska Valley

Liptovský Ján is an attractive village with fewer than 2000 inhabitants. During the summer season the number of visitors per day is cca 5000 people. Cadastral area of the village is located in 2nd, 3rd and 5th degree of protection (National Nature reserves Jánska Valley, National Nature Reserve Ohnište, National Nature Monument Stanišovská Cave).

Since 2007, two projects were introduced in the cadastral area of Liptovský Ján. In 2011-Alexandra Wellness Hotel- reconstruction of an existing hotel with specialization on sport activities (new object: sport centre) and Sunvalley II - 2,5 ha large tourist

centre of 6 apartment hotels (390 beds)/ 5 apartment hotels (314 beds), a congress centre (capacity of 192), 220 /164 (B alternative) parking places, a hockey rink, a tennis court and a commercial centre. As stated by Ministry of culture and tourism of Slovakia, the contribution of this project to existing services of tourism industry is a little unclear. The EIA report does not deal with fauna, flora very profoundly and does not identify habitats affected. However, it states that no species or valuable habitat will be affected (Papajová-Majeská, 2011).

Vyšná Boca

Vyšná Boca is a village of 102 inhabitants (Statistic Bureau of the Slovak Republic, 2005) and 2060 ha large cadastral area located in Bocká Valley. Built-up area of the village constitutes of 10 ha, forest land takes up 1606 ha (77,96%). Majority of cadastral area (foothills included) lies in the 2nd degree of protection, with smaller southern part of its cadastral area in 3rd degree of protection, being Low Tatras National Park and belonging to sites of community interest (under both Habitats and Birds Directive). Lodging capacity is 535 beds, number of visitors per day during the main season is estimated at 3000, with the proposed increase of 100 for future. Recreational area nowadays represents 530 ha with the proposed increase of more 110 ha in future (Nosková, 2010).

In 2009, EIA decision was brought about the project STIV Čertovica. Ministry of the Environment concluded that if every affected entity agreed, Alternative no. 1 is recommended, provided that it complies with 80 conditions. Slovak Environmental Agency opposed this project. Governing body of Low Tatras National Park, Local Environmental Bureau and Affected Regional Environmental Bureau of both Zilina and Banská Bystrica Region opposed the project unless it was located outside the National Park boundaries The project has a direct impact on the National Park, Special Protection Area and Special Area of Conservation (Lukáč, 2009).

WWF in its report White Elephants in Green Mountains, Ski developments in Bulgaria, Romania, Slovakia and Ukraine (2008) recognizes the project STIV Čertovica problematic, mainly bacause of the following reasons: Expansion of existing ski centre in Low Tatras National Park and NATURA 2000 site, important biocorridor for large carnivores and matting places of *Tetrao urogallus* and *Tetrao tetrix* (WWF, 2008).

Land-Use Plan of Vyšná Boca (2010) counts on designation of this ski resort (Nosková, 2010).

Project Bačova Roveň was given a favourable decision in November 2008. It comprises of lenghtening of existing ski slopes (2) and building two new ones, with a cable car track and ski lifts. Report states that investment plan will not directly affect fauna and flora. EIA expert alleges that the evaluation of impacts on biodiversity is very simplified although at the same time recognizes that Slovak legislation does not require evaluation of the impacts on sites and species of community interest. Ministry of Internal Affairs and Local Forest Bureau favour B alternative expanding to the LTNP (Luciak, 2008).

Skicentrum Bačova Roveň is, next to STIV Čertovica, one of the problematic ski resort mentioned in report White Elephants in Green Mountains (WWF, 2008).

Nižná Boca

Nižná Boca is a village of 162 inhabitants, with cadastral area 2517 ha large. During the tourist season it has approximately 1800 visitors a day.

A project of designating a new ski centre Chopec was proposed in 2008 and since then no further steps were taken in EIA process. Building of new lodging capacities is included in the project, two ski lifts (requiring new ski slopes), expanding to Low Tatras National Park and snowboarding area with its own slope. No more specific information is included besides mentioning winter season amenitites. However, the project is characterised as "realisation of recreation centre for winter and summer recreational activities". Administration of Low Tatras National Park stressed in its comment that suggested capacities were higher than what was set as a maximum capacity in Land Use-Plan of Žilina Region (Havasi, 2008).

Liptovská Osada

Liptovská Osada has (as of 2011) 1659 inhabitants. Number of visitors according to Land Use Plan of Žilina Region is suggested to be 2000.

In 2009 a project Gothal was presented as a very fine draft planned to be located in the cadastral area of Liptovská Osada, affecting also Liptovská Lúžna, with constrution

works taking place in ten- year time. Project includes recreational and lodging complex (First phase with 80 recreational houses, 5 guest-houses/pensions, hotel of a capacity of 800 beds) relaxation complex (winter stadium, football stadium, 25m swimming pool, 50 m swimming pool, sport hall, bob sledge, ski lift, ski school for children), deer park (on the borders of National Park Low Tatras), golf course, network of new tourist routes, open-air theatre.

In the database of projects that underwent the EIA process this project is not to be found. On the official site of the project it is presented that it underwent the assessment at the Ministry of the Environment. Similar project⁴ underwent the process in 2005 but was of another name (Liptovská Osada-Dlhé) and project proposer was different as well (village Liptovská Osada). It proposed various development activities to be executed, two ski lifts, football stadium, winter stadium, sport hall, swimming pools, 3 hotels, 65 recreational houses, 30 guest-houses/pensions (every one with a lodging capacity of 20-50 beds) and circa 700 parking places included. Locality "Dlhé" is exactly the locality which is currently being taken by the project Gotha (Gothal Residence, p2011).

The project Liptovská Osada- Dlhé was given a favourable decision in EIA process. Administration of the National Park alleged in its letter from 20th February 2005 that a wetland would be destroyed in the locality Dlhé and the habitat of *Crex crex*, a Special Protection Area priority species would be affected to a huge extent. The water regime of the river Revúca and Lužnianka is to be affected as well, which is not welcome, as critical low flow of the river basin of Revúca is constantly getting further lower in the winter months. However, none of the relevant entities showed an explicitly negative appoach (Luciak, 2005).

Partizánska Ľupča

As of 2011, Partizánska Ľupča has 1276 inhabitants. Cadastral area partly lies in the buffer zone of the national part and partly belongs to the Low Tatras National Park as well, with settlements called Magurka and Železnô lying within the Park.

⁴ - the project did not consist of a golf course, open-air theatre, deer-park, and the same number and kinds of lodging facilities. However, as the location was the same and one particular entity- Yvex ltd- played a role in both of them, for the purpose of the thesis we will unite the project in one under the title Gothal and consider it among project that were proposed within the period 2007-2012

³⁶

Project of ATLADIA Wellness centre was given a consenting EIA opinion on 28th March 2012. From the point of biodiversity conservation it does not represent a threat (Pavlisová, 2012).

2.3 Harvesting of wood

In line with Article 15 543/2002 Coll on Nature and Landscape Protection, activities forbidden to execute in the fourth degree of protection include: a) activities forbidden in the second and in the third degree of protection b) clear-cutting forest management practices.

In line with Article 15 543/2002 Coll on Nature and Landscape Protection, activities forbidden to execute in the fifth degree of protection include: a) activities forbidden in the second, third and fourth degree of protection b) place a construction c)interference with a forest stands.

Among the activities forbidden to be performed in Special Protection Area Low due to their possible harmful effect on birds species subject to Birds Directive it reads: "Clearcutting forest management". Provisions recommended include: "Prevention of unregulated expansion of lodging facilities and other objects and protection of primeval forests fragments" (The State Nature Conservancy, p2006).

Act no 326/2005 Coll. on forests came into force on 1st September 2005. Environmentalists and some foresters consider it being a law lowering the protection provided to forests.

Article 23(5) states that in case that a possible threat is identified represented by pest occurence, forest managers have a duty to proceed with the accidential harvest for the sake of the forest stands in order to stop pest infestation. East part of study area, around Bocká Valley was recognized as such an area. The article allows for forest managers to proceed with the harvest without notice to the responsible government body. All can be done without asking for derogation and obtaining it (only needed in the fifth degree of protection). If the accidential harvest (not included in the current forest management plan) makes up more than 20% of the forest unit or more than 0,5 ha of continuous deforested area, forest manager has to reports to the state administration of forestry in 7

days after a harvest was executed. It is hard to track the purpose of harvest after it has been executed (Changenet, 2005).

Accidential harvest, according to the Forest Act, is any timber-harvesting activity that is part of measures taken to battle the pest infestation.

2.4 Lan Use Planning

Demänovská Valley

On 24th September 2007 Regional Environmental Bureau sent its perspective on the Demänovská Valley land-use plan proposal, promulgated on 20th August 2007 (Annex 2).

The activity of building parking lots in the area of Demänovská Cave of Liberty (currently with illegal parking places) with the capacity of 70 cars and 20 buses needs to be defined more profoundly – no more land is allowed to be taken up.

The exclusion of any small- scale farming and production proposed in the land-use plan will not allow for any agrotourism activities, cattle grazing on semi-natural pastures, on the ski-slopes.

Environmental Bureau calls for preparing a relevant study of carrying capacity of the area and further development being based on such study. Last document occupying itself with the topic is from 1995. It is necessary to mention that carrying capacity will not rise and ask ourselves whether it is worth to sacrifice the natural treasures for development activities.

I tis stated thatDemänovská slatina is not of the second, but of the fourth degree of protection.

Environmental Bureau further calls for the remark of Demänovský karst being a Ramsar locality.

Proposed building of the railway lines is not considered tenable when combined with proposed increase of parking places (tram lines making their way through National
Nature Reserve are not recommended either). It will further have a negative impact on the scenery, will possibly threaten the cave system and potable water quality, take up again more area of protected species habitats.

The land-use plan layout (aprroved by Municipal Council Resolution no 18/2005 on 16th May 2005) agreed on 4500 new parking places. The land-use plan proposal as discussed here talks about increasing the parking capacity by 9365 (Annex 3).

The land-use plan does not mention the impact of development activities on forest land pool in the cadastral area.

Environmental Bureau does not approve of development sites in National Nature Reserve Demänovská Dolina while it represents the site of 5th degree of protection.⁵

In general- despite the huge development activities discussed the presence of valuable habitats and protected and vulnerable species is not really dealt with in the land use plan proposal. Administration of National Park and Environmental Bureau call for reasoning behind proposing the combination of capacities (logging, parking, ski slopes' capacities..) and for compliance with agreed layout capacities.

On 21st June 2010 Administration of National Park sent Regional Building Bureau a letter asking whether Land Use plan of Demänovská Valley is valid. The issue is still on and national park has not received the answer yet. It did not stop development activities. Municipality of Demänovská Valley claims the land-use plan is valid (Annex 4).

Pavčina Lehota

Pavčina Lehota is a tourist centre of national importance, with 3000 daily visitors planned. Approved land- use plan in 2002 (Gočová and Goč, 1998) proposed the increase the logging capacity by 356 beds. Capacity of eating-out places is to be increased by 1070 places, to 1200. Number of inhabitants will increase by about 85%, from 413 to 764.

⁵ At that time the zonation was about to take place which might have lowered the degree of protection. The degree remained the same till nowadays

³⁹

Pavčina Lehota will, according to the land-sue plan, offer a wide variety of activities for its visitors: aquapark, horse-riding centre, cross-country skiing routes, ski slopes, agrotourism activities. Approved land use plan counted on project Expansion of tourist centre Žiarce, which has been realised.

Liptovský Ján

In the Changes and Amendments no. 2 to Land-use Plan, development zones extend to the borders of cadastral area to the west (copying theborders with cadastral area of Závažná Poruba). The total area in question is 27 ha large, with a total lodging capacity of 2135 beds for zone no. 1, zone no.2 will absorb the centre of 101 recreational houses with a lodging capacity of 802 beds. Implementation of the changes no.2 intends to link Liptovský Ján and Závažná Poruba and create upper-regional recreational zone.

Proposed activities do not take up habitats subject to protection under NATURA 2000 initiative. Area hosts on the small-scale habitats non-forest habitats of national and community importance as well as rare waterlogged habitats (IMG_6213). Administation of the Low Tatras National Park required that appropriately managed non-forest area was maintained at sufficient levels as hunting areas used by *Aquila chrysaetos* and *Aquila pomarina* on the north and on the south of the area in question for future.

In the Changes and Amendments no.3 to Land-use Plan of Liptovský Ján (Nosková, 2009), new sites of development are proposed, copying from the north the development zones classified in Changes and Amendments no.2, and further extending to the south. Total increase of inhabitants (in Changes no.3) is estimated at 930 people and increase in lodging capacity is 260 beds. Five development zones are described, where one of them- UO IV 4.5, copies the borders of the national park in its whole lenght.

Administration of Low Tatras National Park in its remark reflecting Changes and Amendments no.3 wrote that already when consulting previous changes and amendments, it required that appropriately managed non-forest area was maintained at sufficient levels as hunting areas used by *Aquila chrysaetos* and *Aquila pomarina*. It further stated that new development zones were neighbouring habitats of species *Crex crex* and the possilibity the proposed changes would affect them could not be ruled out.

It concluded that their requirements were not met in the proposed changes to the landuse plan (Annex 5).

Liptovský Ján recently proposed Changes and Amendments no.4. In the screening part of SEA process it was stipulated that development activities would not mean any harm to species and habitats subject to protection (Potančok, 2013).

Vyšná Boca

Land-use Plan of Vyšná Boca (2010) informs about lodging capacity is 535 beds, number of visitors per day during the main season being 3000, with the proposed increase of 100 in future. Recreational area nowadays represents 530 ha with the proposed increase of more 110 ha in future

Bocká Valley is according to Changes and Amendments to Land-Use Plan of Žilina Region one of the most attractive area and needs to be developed in a qualitative way with high-standard amenities.

In the line with Land Use Plan of Žilina Region the Land Use Plan of Vyšná Boca underpins that idea of new ski resorts – STIV Čertovica and Bačova Roveň.⁶

Malužiná

Draft of Land-use plan of Malužiná (Hudec, 2011) respects the notion of existing National Park and sites of community interest.

As drafted (Hudec, 2011), the only potentional development sites lie on the north in the cadastral area and in the locality Tále, both in the 2nd degree of protection. It suggests that new lodging facilities are designated, increasing number of beds by about 150 to 250, with only 30 beds in development site of Tále. Restoration of an old school and other no longer functional rural buildings for the purpose of agrotourism is suggested. Draft further suggests to make a use from existing tourism sites in Nižná and Vyšná Boca and further in Liptov Region and does not propose new sporting facilities in cadastral area of Malužiná. The only burden of the tourism will stay with the walking trails in the

⁶ Both underwent the EIA process. They partly take up area of LTNP

⁴¹

National Park, with one new proposed cycling trail linking Malužiná with Jánska Valley. Suggested traffic during summer season is 400-500 people a day.

Liptovský Mikuláš

New Land- Use plan of Liptovský Mikuláš suggests new development zones to be located in Demänová in order to meet the tourists needs yet before entering Demänovská Valley and broaden the range of tourist attractions. In the south part, on the borders with Demänovská Valley, there is an area reserved for aquapark and congress centre, and there is also a proposal for setting up an amusement park in this suburban area located in 2nd degree of protection in the buffer zone of LTNP.

Attractive development zones in the suburban part of Bodice are concentrated along the road leading to Demänovská Valley. There is a proposal for setting up a golf course to help present Liptovský Mikuláš as tourist centre of international importance. In the Draft to Land- Use Plan, there was an area defined especially for setting up a golf course. During the comment period on proposed draft, on the 9th of October 2010, Administration of Low Tatras National Park opposed the idea to define area between today's settlement boundary and SAC Jelšie as "area for recreation in natural environment" primarily specified as golf course (Annex 6). Ministry of the Environment states in its comment on the Land- Use Plan SEA report, that possibly built golf course would be likely to affect Nature Reserve (SAC) Jelšie to a lesser extent.

In the suburban parts of Andice a Benice a recreational centre of cottages is proposed to be designated, with a direct link to a recreational centre in Bodice.

In Il'anovo new housing sites are proposed to be built in northern part of its cadastral area, in Ploštín in its northern and western part. An area in the south part of Il'anovo is proposed as sports and recreational zone, establishing a linkage to the ski centre Opalisko in Závažná Poruba. Areas which are part of National Park are left untouched.

Ministry of the Environment considers the Land- Use Plan not being a threat to biodiversity conservation in the area, as the most valuable sites will not, according to the draft, be in direct contact with development zones. However, development zones

will occupy new areas and some of the near-natural areas will be converted to recreational parks, etc. Further in Ministry comment it is stated that in case of Ploštín, Demänová and Il'anovo indeed the development zones touch the borders of LTNP. Ministry concludes that for all of proposed activities that are potentional threat, the impact assessment will be examined (Čendulová, 2010).

Kráľova Lehota

Land Use Plan (Cukorová, 2007) proposed the increase in the built-up area by 16 ha to 61,4 ha. Quite illogically, estimate of land taken out of agricultural use being 17, 81 ha. The increase in number of inhabitants is planned to be by 450 people, increase in capacity of eating-out places by 350 (93 in total as of 2007), 300 of which would be in location of Svarín in the close vicinity of (and partly within) Special Protected Area Nízke Tatry, and the lodging capacity by 1150, 950 out of which is planned to be in Svarín. As of 2007 there were 340 available beds in the village. According to Land Use Plan of Žilina Region Kráľova Lehota is a recreational unit of regional or higher importance. Svarín has the potential to become a tourism centre of national importance.

Land Use Plan of the village suggests new amenities for recreational activities will be established- hippotourism, rafting, cross-country skiing, fishing and tourism.

Providing that no mass events are going to be organised in the area of Svarín, Administration of Low Tatras National approves of the Land Use plan from the the environmental protection point of view. It further states that Svarín does not provide infrastructure of any kind for planned development so far and it should be taken into account when discussing future projects.

Liptovská Lúžna

The village proposed a land use plan in 2008. It dedicates much attention to the expansion of tourist facilities. Increase in number of beds is suggested to be 1156 (200 new recreational houses), which was not seen positively by Administration of the Low Tatras National Park (11th September 2008) nor Regional Environmental Bureau (letter from 18th September 2008) (Annex 7).

Number of visitors daily is suggested to be 5000 (Toman, 2008).

Východná

Východná is as of2007 a village with 2340 inhabitants. Land use plan (Cukorová,2007) counts with reaching 2800 inhabitants .Built up area of the village was as of 2007 123,14ha. THE land use plan proposes expansion to 136,51 ha (by 13,37 ha).

Land use plan further suggests increase in lodging capacity by 820 beds (from 186 to 1008), out of which 620 are planned in the built-up area, 200 outside the borders of built-up area. Although sharing the recreational site of national importance- Svarín-with Král'ova Lehota, Východná does not propose it as a development site.

New recreational development sites are planned on the borders with buffer zone of the Low Tatras National Park, namely being Čierna dolina and Zámčisko. Čierna dolina lies in the close vicinity of the biocorridor of the river Biely Váh. Administration of the National Park alleged (letter from 10th December 2007, Annex 8) appropriate precautions should be taken to ensure it is left untouched. The approved land use plan in the section Binding Regulations requires Čierna dolina recreation zone to retain at least 30 m buffer zone on the both sides of the river Biely Váh, to respect the biocorridor this river represents with all the riparian vegetation present.

Važec

Važec is a large village (2372 inhabitants as of 2007) with a land use plan approved on 5th June 2009 Built-up- settlement area represents 172,9 ha. The cadastral area lies partly in the buffer zone of Low Tatras National Park, built-up area does not reach into it. Land use plan does not plan on extending the development activities close to the buffer zone and emphasizes that biocentres function of ecosystems of Low Tatras mountain range will not be threatened.

Land use Plan of Zilina Region (Toman, 2008) suggests that Važec has a potential to become an agrotourist centre of national importance.

As of 2009 Važec had the lodging capacity of 461 beds. The earlier stage of land-use plan proposed to reach 1153 beds in the near future (up to 10-years time). A project of building a recreational and golf complex Golfový areál (this name already proposed) on the south-east of the village to be built in the 10-20-years time is mentioned very

briefly. Land taken out of agricultural use in total according to earlier-stage land use plan documentation was 56,35 ha (Cukorová, 2009).

The project Golfový areál is characterised in later stage of the land use plan documentation (Cukorová, 2009), eventually approved (5th June 2009). Golf and recreational centre Golfový areál is there mentioned as a project for the near future (up to 10 years time) to be of lodging capacity of 1400 beds (hotel, apartment houses, chalets) located east of the settlement area in the location of Petrovská. In the graphical part of the land use plan the CR5, as the site of this project is labelled, is nowhere to be found. Land taken out of agricultural use in total would account for 105,88 ha, land taken in total:155,59 ha.

Partizánska Ľupča

In the proposed Changes and Amendments of the Land Use Plan from 2011, suggested capacity of visitors is set on 6000 in summer and 9000 in the winter season. New amenities include welness centre⁷ and ski centre Ľupčianska Magura, which together will create conditions for the emergence tourist centre of international importance. This approach is justified by the statement that the document is in accordance with Land Use Plan of Žilina Region. Golf course is also planned to be built.

The Administration does not approve of the document proposed alleging that the Changes and Amendments are not in compliance with Land Use Plan of Žilina Region, which counts with Partizánska L'upča being a tourist centre of national, not international importance. The development sites meant to serve as sporting and recreational amenities and facilities (golf course, technical backround for the ski centre) are located in the south of the area in question, bordering the Special Conservation Area Nízke Tatry on the south. Some of the ski slopes and ski lifts directly interfere with the Special Conservation Area Nízke Tatry (Annex 9). It is not in line with the Birds Directive, where it is stated: *". Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species*

⁷ Welness Centre Atladia underwent EIA and received consenting opinion in 2012

⁴⁵

as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive."

3 Thesis methodology

The first step in the analysis of the threats to biodiversity conservation goals in the LTNP in Žilina Region⁸ was to define the term biodiversity, its importance and to outline international cooperation it warrants.

A large number of treaties and documents (Convention on Biological Diversity, Agenda 21, Primeval Forests of Slovakia, White Elephants in the Green Mountains, Strategy for Development of Tourism Industry in Žilina Region for 2007-2013), laws (Act no 543/2002 Coll. on Nature and Landscape Protection, Act No.24/2006 Coll. on environmental impact assessment, Act 326/2005 Coll on Forests, European Directives implemented on national level, land use plans (for the municipalities of: Važec, Východná, Hybe, Vyšná Boca, Malužiná, Liptovský Ján, Liptovský Mikuláš, Závažná Poruba, Pavčina Lehota, Lazisko, Partizánska Ľupča, Liptovské Sliače, Ludrová, Ružomberok) and the development plan of Liptovská Porúbka, EIA reports for 17 projects (10 in Demänovská Valley, 3 in Bocká Valley, 1 in Jánska Valley, 1 in Pavčina Lehota, 1 in Partizánska Ľupča and 1 in Liptovská Osada and Liptovská Lúžna) were studied in order to assess the actual measures that are being applied to maintain the biodiversity, and to determine whether they are applied.

The third step of the analysis was based on terrain works carried out in July-September 2012 (cca 20 days in total) in Demänovská Valley, Jánska Valley, Bocká Valley and Iľanovská Valley, following the walking trails, and further the cadastral areas of Pavčina Lehota, Važec, Liptovská Porúbka, Východná, Kráľova Lehota, Partizánska

⁸ Exclusion of the parts of the Park lying in other regions (Banská Bystrica and Prešov) is justified by the existence of relevant documents and policies concerning only Žilina region (Land Use Plan of Žilina Region and its Changes and Amendments).

⁴⁶

Ľupča, Liptovský Mikuláš, Dúbrava, Lazisko and Svätý Kríž were observed. The area outside the settlements boundaries was examined mainly for getting information about forest managment practices and about new development sites. The municipality bodies of Závažná Poruba, Liptovský Ján and Pavčina Lehota were visited in order to get to the land- use plan documentation which was not available online. The village of Partizánska Ľupča did not provide the land use plan documentation upon request.

Since a large proportion of required data has not been published, access to these was gained under Act no. 211/2000 Coll on free access to information. Information about derogations from the nature protection given throughout the years 2007-2011 in the area of question was requested from Ministry of the Environment Furthermore, Administration of the Low Tatras National Park was requested to deliver information. Based on this a personal appointment with Mr. Ing. Adalbert Mezei, Administration of the Low Tatras National Park member, was gained. Through this session very beneficial materials (stands of Administration of the Park on particular projects and land use plans) were obtained for proceeding in the analysis- hundreds of pages of material from 2007-2012 were gone through, 249 photos of the documents were taken. Out of these 76 photos discussed projects proposed in Demänovská Valley and its land use plan documentation.

The analysis of strategic documents, treaties and laws together with evaluation and assessment of the practices applied in the area and their compliance with relevant documents comprises the main part of the thesis.

To reach the set of the objectives the following was examined to evaluate the regulatory function of Environmental Impact Assessment process (government failure section):

localization of the project

derogation needed from species/ protected area protection

compliance with the Land use plan of Zilina Region

To reach the set objectives the following was examined to evaluate the regulatory function of Land Use Plan of Zilina Region (government failure):

proposed number of visitors daily in the Land Use Plan of Zilina Region

proposed increase in lodging facilities in individual villages based on proposals in Land Use Plan of Zilina Region

localization of development sites in the land use plans of individual villages (reaching LTNP, within LTNP etc)

To reach the set objectives the following was examined to evaluate the effects of Forest Law (besides terrain works having been carried out):

Primeval forests (classified in Primeval Forests of Slovakia, 2011) threatened by the harvesting of wood

Primeval forests where harvest was executed after relevant bodies had been given a notice that they had been classified as primeval forests

To reach the set objectives the following was examined to evaluate the market failure in the sphere of tourism industry ignoring the natural value of the area:

form of tourism of the projects proposed

cumulative effects taken/not taken into account

social value of components of nature given/not given in the report

the valuable area from the biodiversity conservation point of view directly affected **To** reach the set objectives the following was examined to evaluate the information failure Odstraněno: ¶

Attendance of the members of the public at public hearings (a part of EIA process)

Comments from the members of the public at public hearings

3.1 Characteristics of Research Area

The Low Tatras National Park (further referred to as LTNP) covers an area of 72 842 ha (its buffer zone takes up 110 162 ha) in three self-governing regions: Žilina, Banská Bystrica and Prešov. This thesis is concerned with the northern part of the LTNP territory lying in Žilina Region (Figure 1). Cadastral areas of 33 municipalities (30 villages and 3 towns) in the districts of Liptovský Mikuláš and Ružomberok are located partially in the National Park or in its buffer zone.



Figure 1 Green marking.represents area of Low Tatras, red marking represents study area

3.1.1 Geomorphic Characteristics

Orographically, the study area belongs to the Alpine-Himalayan System, Carpathian Mountains Sub-System, Western Carpathians Province, Inner Western Carpathians Sub-Province, Fatra-Tatra Region, Low Tatras Unit, subunit-Ďumbierske Low Tatras and Kráľovohoľské Low Tatras. It mainly comprises Tatricum crystalline basement (Mazúr, Lukniš, 1980).

3.1.2 Climate Characteristics

In terms of classification of Slovak climate divisions, the study area is located in the temperate climate division (the highest temperature in July on average does not exceed

49

Odstraněno: ¶

Odstraněno: ,

16°C), in the slightly warm, moist district (Kufčák, 1968), The annual precipitation ranges from 800 to 1600 mm (Nižňanský, 2008).

3.1.3 Flora

According to phytogeographical division of Slovakia (Futák, 1980) the study area belongs to Carpathicum occidentale zone, the northern part (i.e. part of the buffer zone located in Liptovská Basin) belongs to Intercarpaticum, Tatra basin district. Flora of the Southern part, the slopes of the Low Tatras belongs to Eucarpathicum, Large area is covered with Norway spruce forests. Higher altitudes in subalpine zone are covered with mountain pine forests. The nival zone is not present.

The study area hosts the following habitats of community interest: Acidophilous Picea forests of montane to alpine levels; Western Carpathian calcicolous Pinus sylvestris forests; *Tilio-acerion* forests of slopes, screes and ravines; Medio-european limestone beech forests of the *Cephalanthero-fagion*; Medio-european subalpine beech woods with Acer and *Rumex arifolius*; *Asperulo-Fagetum* beech forests; *Luzulo-Fagetum* beech forests; Siliceous rocky slopes with chasmophytic vegetation; Calcareous rocky slopes with chasmophytic vegetation; Siliceous scree of the montane to snow levels; Active raised bogs; Mountain hay meadows; Lowland hay meadows; Hydrophilous tall herb fringe communities of plains and of montane to apline levels; Species-rich Nardus grasslands on silicious substrates on mountain areas; Alpine and subalpine calcareous grasslands; Silicious alpine and boreal graslands; Bushes with *Pinus mugo* and *Rhododendron hirsuti* (EEA,2011).

3.1.4 Fauna

The study area belongs to Carpathians Sub-Province, Western Carpathians Zone (Jedlička, Kalivodová, 2002). The LTNP hosts species listed in Annex IV to Executive Regulation no. 24/2003 Coll. of the Act no. 543/2002 Coll. on Nature and Landscape Protection. These are species of national and community importance (listed thus also in Annex II to Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora or Council Directive 79/409/EEC):

Bombina variegata, Bombina bombina, Triturus montandoni, Myotis myotis, Rhinolophus hipposideros, Myotis bechsteini, Myotis dasycneme, Myotis brandtii, 50

Odstraněno: ¶

Odstraněno:

Odstraněno: ¶

Vespertilio murinus, Microtus tatricus, Marmota marmota latirostris, Canis lupus, Lynx lynx, Ursus arctos, Rupicapra rupicapra tatrica (Ursus arctos, Rupicapra rupicapra tatrica, Marmota marmota latirostris being priority species).

Following bird species live in the area of question: Aquila pomarina, Aquila chrysaetos, Falco peregrinus, Picoides tridactylus, Dryocopus martius, Tetrao tetrix, Tetrao urogallus, Aegorius funereus, Perris apivorus, Picus canus, Bubo bubo, Ciconia nigra, Bonasa bonasia, Glaucidium passerinumm, Aegolius funereus, Dendrocopos leucotos, Picus canus, etc (EEA,2011).

Several endemits and glacial relicts are present in the area, e.g. *Picoides tridactylus, Marmota marmota latirostris, Rupicapra rupicapra tatrica, etc.*

3.1.5 Biodiversity Conservation Status - National Legislative

The LTNP was established in 1978. Low Tatras represent an area of relatively high ecological stability (Izakovičová, 2006).

LTNP hosts species listed in Annex IV to Executive Regulation no. 24/2003 Coll. of the Act no. 543/2002 Coll. on Nature and Landscape Protection- species of national and of community interest. Its buffer zone often represents important hunting areas for the birds of prey (*Aquila pomarina, Aquila chrysaetos, Falco peregrinus*, etc.), as well as important home areas of *Crex crex*, priority bird species. The Carpathians' role as a refuge for large carnivores is perhaps one of the most important aspects of its biodiversity and so is true for Low Tatras.

The slovak system of nature conservation distinguishes 5 degrees of protection –_the fifth being the most valuable (from conservation perespective) with most restrictions on human activities. Buffer zone of the LTNP is of 2nd, LTNP is of the 3rd degree of protection. There are a few small scale protected areas of the 5th degree of protection (highest in Slovakia). They are as follows: National Nature Reserves Demänovská Valley (established in 1929), Jánska Valley (established in 1928), Ďumbier, Ohnište, Salatín and Nature Reserve Jelšie.

National Nature Reserves Demänovská Valley, Salatín, Ďumbier, Jánska Valley are the most threatened small- scale areas by tourism industry in Slovakia (Gajdoš, 2008).

A number of areas classified as primeval forests or their fragments lie in the study area: Chmelienec (146 ha), Veľká Vápenica (36ha), Hronovisko (35 ha), Fišiarka (34 ha), Nemecká (26ha), Kolesová (26 ha), Veľký Bok (25 ha- before 2012), Ohnište (86 ha), Ďumbier (57 ha), Hučiaky (25 ha).

3.1.6 Biodiversity Conservation Status- Implemented International Legislative

A major part of the study area belongs to the NATURA 2000 network and it provides for the species protection under the Birds and Habitats Directives (Conuncil Directive 79/409/EEC on the conservation of wild birds and Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, respectively). The overlap between Special Protection Area, Special Areas of Conservation and LTNP is pictured in Figure 2.



Fig. 2 Low Tatras National Park and Natura 2000 sites

Being the Special area of conservation means that Low Tatras National Park is a site of Community importance designated by Slovakia as a Member State through a statutory, administrative and/or contractual act where the necessary conservation measures are

applied for the maintenance or restoration, at a favourable conservation status, of the natural habitats and/or the populations of the species for which the site is designated.

4 Results and Discussion

4.1 Government failures

4.1.1 EIA

Since 2007, 12 development projects were proposed in Demänovská Valley⁹ (Table 1). Eleven of them are located in 3rd degree of protection and one in the 2nd.

Nine projects of those located in the LTNP and one in the buffer zone were required to undergo the EIA process. All 9 projects were given favourable decision at the end of EIA process, all in the region that has according to Strategy for Development of Tourism Industry In Žilina Region for 2007-2013 "*exhausted its potential for further development of tourism and has high natural value*."

Two projects (16,7%) out of 12 approved projects¹⁰ needed a derogation from species protection and 8 (67%) needed a derogation from provisions for protected areas (Art 14 (1) d) Act 543/2002 Coll:,, in the third degree of protection outside the settlement boundaries it is forbidden to ski,....and to perform other sporting activities") (Figure 3).



Figure 3 Percentage of approved projects needed derogation from nature protection

Four projects (42%)were not in line with Land Use Plan of Zilina Region ("Not to open

⁹ Demänovská Valley is one of the most important tourist resorts in Slovakia. It represents one of the most prestigious ski resorts in Slovakia visited by domestic as well as foreign clients

¹⁰ Out of 12 projects ten obtained consenting EIA opinion, 1 was left with go signal after scoping phase, project co-finanaced from EU funds did not undergo the EIA process. All 12 projects are therefore classified for the purpose of the thesis as "approved"

⁵⁴

up new sport centres, tourist centres and climatic treatment centres in Low Tatras National Park", and "Increasing the lodging capacity is not desirable when in area outside the settlement boundaries") (Figure 4).



Figure 4:Projects compliance with the Land Use Plan of Zilina Region

Competent Slovak authorities approve of projects, that are aginst the Convention of Biological Diversity preamble, do not comply with measures that are according to Agenda 21¹¹ necessary to undertake. Slovak authorities do not respect regional strategic documents (Land Use Plan of Zilina Region).

¹¹ cited in the first part of the thesis, togehter with Preamble of CBD, Land Use Plan of Zilina region, Strategy for Development of tourism industry in Zilina region in 2007-2013



Table 1 Projects proposed in Demänovská Valley in 2007-2012

	Project title	location	affected valuable habitats ¹²	directly affected species of fauna	compliance with Land Use Plan of ZR	derogation from species protection	derogation from provisions for protected areas	EIA decision
1	Recreational Site RESORT	buffer zone	none	biocorridor	yes	not needed	not needed	consenting
2	Reconstruction, extension of cable car and ski slope Grand- Brhliská	LTNP	9410	none mentioned	yes	not needed	needed	consenting
3	Reconstruction and extention of cable car and ski slope Biela púť	LTNP	none	none mentioned	yes	not needed	needed	consenting
4	Transition of a ski lift to a cable car Záhradky- Priehyba	LTNP	9410	none mentioned	yes	not needed	needed	consenting
5	Restaurant Priehyba	LTNP	9150	none mentioned	yes	not needed	not needed	consenting
6	Transition of hotel Chopok from apartment hotel to wellness hotel	LTNP	9150	Pseudogaurotina elegans	no	needed	not needed	consenting
7	Funitel - Transition to modern cable car technology	LTNP	6150, 4060, 9410, 4070*, 6230*	none mentioned	yes	not needed	needed	consenting
8	Ski Slope Turistická- widening of existing ski slope	LTNP	info not provided	none mentioned	yes	not needed	needed	without scoping phase
9	Higher Category Hotel	LTNP	9410	none mentioned	no	not needed	not needed	consenting

¹² **Habitats:** 9410- Acidophilus spruce forests 6150- Siliceous alpine and boreal grasslands

4070* -Bushes with Pinus mugo and Rhododendron hirsutum

9110- Luzulo-Fagetum beech forests 8220- Siliceous rocky slopes with chasmophytic vegetation

9150- Medio-European limestone beech forests

6230*- Species-rich Nardus grasslands on siliceous substrates in mountain areas

9130- Asperulo-Fagetum beech forests

91E0*- Alluvial forests with Alnus glutinosa and Fraxinus excelsior

4060- Alpine and Boreal heaths

	Name of the project	location	affected valuable habitats	directly affected species of fauna	compliance with Land Use Plan of ZR	derogation from species protection	derogation from provisions for protected areas	EIA decision
10	Linkage of Chopok North and Chopok South and modernisation of Chopok North and Chopok South	LTNP	9110, 9150, 91E0*, 4070*, 6150, 4060, 9410, 8220, 9130	R. rupicapra tatrica, Marmota m. latirostris ¹³	no	needed	needed	consenting
11	Linkage Biela Púť- Priehyba	LTNP	9410	none mentioned	yes	not needed	needed	consenting
12	Chopok West ¹⁴	LTNP	data not available	data not available	no	data not available	needed	not undergoing

¹³ Project destroys habitat for colonies of the priority species *Marmota marmota latirostris*, endemic species of the Low and High Tatras, was given a favourable decision in regulatory EIA process. The conservation status of the species is unfavourable already, and year after year their numbers get fewer. It is very likely that some colonies would need to be transferred to another location when proposed project is under construction cause their active colonies will be directly affected. Having in mind their long-lived specific endemic existence in these territories, it is unlikely that they will find habitat of the same high quality.

¹⁴ Project no. 12, not found in database of projects that underwent (or are currently undergoing EIA process), Complex Tourist Centre Chopok West was under the code 25130120002 financially supported under Operational Programme Competitiveness and Economic Growth 2007-2013, with overall expenditure of 12 mil EUR (6 mil. from the funds) (Informačný list, chopok west, 2011).

The programme was structured according to four priorities. Priority 3 aimed to support the use of the natural, cultural, and existing potential of the Slovak Republic for the development of sustainable tourism. The focus of this priority is the promotion of Slovak tourism, both locally and internationally (http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?LAN=7&gv_PAY=SK&gv_reg=ALL&gv_PGM=1234&gv_defL=7)

This project did not reduce the existing disparities in the economic performance of individual regions cause Demänovská Valley is already one of the most competitive tourism centre in Slovakia. Neither, while profiled as a ski centre, was it built in a sustainable manner.

Out of 8 projects proposed in parts of study area other than Demänovská dolina, three were situated in the LTNP¹⁵(Table no.2). Three approved projects did not comply with the Land use plan of Zilina Region ("Development of tourist facilities and activities located in or adjacent to NATURA 2000 sites can obtain consent only provided that it will not have direct, indirect or cumulative impact on species or habitat that is subject to NATURA 2000 site protection and will not worsen their conservation status.", "Increasing the lodging capacity is not desirable when in area outside the settlement boundaries" and "Not to open up new sport centres, tourist centres and climatic treatment centres in the LTNP"). Three (42,9%) projects that obtained a consenting decision in EIA process needed derogation from species protection and 2 (28,6%) from provisions for protected areas (Figure 5).



Figure 5 Percentage of approved projects in need of derogation from nature protection

Moreover, 2 projects - STIV Čertovica (proposed in an important biocorridor for large carnivors and breeding habitat of *Tetrao urogallus* and *Tetrao tetrix*) and Bačova Roveň are considered problematic ski resorts in the report "White Elephants in Green Mountains, Ski developments in Bulgaria, Romania, Slovakia and Ukraine". According to the report, they are without long-term perspective of relative costs and benefits including economic, social and environmental factors, threatening NATURA 2000 sites and priority species (WWF, 2008).

¹⁵ Project Chopec was evaluated in the Table no 2. The future localisation poses a threat to priority species, is not in compliance with land use plan and is supposed to be located in LTNP. In the graphs will not be taken into account as is as of today in the initial stage of EIA process.

⁵⁹

While enumerating impact of Project Bačova Roveň (Fig. 6) on fauna, it was stated that in case individuals of *Tetrao tetrix* are distrubed by the development, they will leave the site and find the site of comparable quality in the adjacent area. Based on our terrain work, and considering the habitat requirement of the species in question, we are confident to say, that it is highly unlikely that the species would find suitable habitat anywhere nearby,. The area of Bocká Valley is one of the most disturbed areas of the LTNP and fragmentation of forest patches is very high (Fig.7).



Figure 6 Alternative A of project Bačova Roveň



Figure 7 Author: Klocok, Ľ. 15th July 2012, view on Bocká Valley and surrounding area from the west

Table 2 Projects proposed in buffer- zone or in LTNP outside Demänovská Valley in 2007-2012

	Area Liptovský Ján	localization	affected valuable habitats	directly affected fauna species	compliance with Land Use Plan of Zilina Region	derogation from species protection	derogation from provisions for protected areas	EIA	
1	Alexandra wellness hotel ¹⁶	buffer zone	data not available	data not available	yes	not needed	not needed	not undergoing	
2	Sunvalley II	buffer zone	info not provided	none mentioned	no	not needed	not needed	consenting	
	Pavčina Lehota								
3	Žiarce	buffer zone	none	none mentioned	yes ¹⁷	not needed	not needed	consenting	
	Vyšná Boca								
4	STIV Čertovica	LTNP	6230*, 9410	Tetrao tetrix, Tetrao urogallus, carnivors	no	needed	needed	not overall consenting	
5	Bačova Roveň	LTNP	9410	T.tetrix, T. urogallus	no	needed	needed	consenting	
	Nižná Boca								
6	Chopec	LTNP	data not available	Tetrao tetrix	no	needed	needed	initial stage	
	Partizánska Ľupča								
7	ATLADIA Wellness Centre	buffer zone	none	none mentioned	yes	not needed	not needed	consenting	
	Liptovská Osada, Liptovská Lúžna								
8	Gothal	buffer zone	none	Crex crex	yes	needed	not needed	consenting	

 ¹⁶ Project funded by EU funds- 5 045 809, 32 EUR under Operational Programme Competitiveness and Economic Growth 2007-2013
¹⁷ Project Žiarce partly takes up sites protected under Birds Directive. In the EIA documentation it is stated that this area represents only an edge of SPA Nízke Tatry, and does not host relevant species all year long. It is therefore in compliance with statements in the Land Use Plan. However, species that are subject to protection are still present in the area.

⁶¹

If comparing an official stand of relevant bodies on winter amenities in Carpathians, we see prime difference from the situation established in other mountain ranges. For instance, economic experts agree with scientists and environmentalists that the winter tourism in the Alps can't take any more growth. Governments and business leaders across the region increasingly agree. Swiss banks are now reluctant to lend on ski development projects. Building new ski resorts has been banned in Switzerland and Germany. In January 2005 the Tyrol government sitting in Innsbruck, the self-styled capital of the Alps, launched its most radical bid to call a halt to the relentless development. All projects on the quarter of Tyrol that is conservation territory were outlawed and the government issued a blanket ban on all new ski developments.(Traynor, 2005). Slovak authorities show their support via EIA final decision to all the projects that were merely about, or consisting of, building a ski lift.

Out of factors set as criteria the overall controversy of the projects proposed was further examined (Fig.8). Controversy "0" is associated with the project that was in compliance with land use plan and did not need the derogation either from species protection or provision for protecteed areas. Controversy of the level"3"is associated with a project the was not in compliance with a land use plan and simultaneously needed derogation from species protection and derogation from provisions for protected areas. Twenty percent of the projects proposed were of such nature.



Figure 8 Controversy (non-compliance and need of a derogation) of projects proposed

4.1.2 Land Use Planning

4.1.2.1 Land-Use Plan of Žilina Region and its Changes and Amendments

Odstraněno:

Changes and Amendments no.3 are focused on tourism industry development in Žilina Region. The Land-use plan of zilina region contains general statements about not opening up new sport centres, tourist centres and climatic treatment centres in Low Tatras National Park, about respecting NATURA 2000 sites etc. However, when assessing the impact of potential tourism activities on particular patches, parcels, the SEA report states it is not possible to assess it. The reason behind it, as alleged by the proposer, was that particular parcels do not contain concrete projects yet and the impact assessment will be examined in lower levels of land use, or project documentation (Administration of LTNP in its letter from 10th October 2007-Fig 9).



Figure 9 A letter sent to Administration of the LTNP about impossibility to assess the impact of the Land Use Plan properly

Ignoring the impact of Land Use Plan of Zilina Region Changes and Amendments Draft resulted in actually not excluding any activities from proposed development sites. *The first part of the text states that respect for protected areas is crucial and in following section it offers the parts of LTNP for development*, Administration of the LTNP states in its letter from 10th October 2007 (Fig.10). Villages prepare their land-use plans and there are not many factors that limit them. Changes and Amendments no 3. failed their regulatory function to some extent, leaving out the complex examination of many potential threats to the biodiversity while proposing every other village becoming a tourist centre of regional, national or international importance (Table 3). That

naturally comes with a requirement of further development of tourist amenities and higher pressure on valuable areas.

Proposed number of the visitors daily (daily visitors for individual villages, as recognized by Administration of LTNP, is in the Changes and Development no.3, is much higher than its increase in initial Land Use Plan of Zilina Region (Figure 11, Table 3). As seen in the table, proposed increase in number of daily visitors or status given to a village was in numerous cases followed by proposal of unrestrained development in individual villages (Demänovská Valley, Liptovský Ján, Važec, Partizánska Ľupča, Vyšná Boca- ski development).



Figure 10 Administration of the LTNP comments on Land Use plan proposing area within LTNP



Figure 11 Administration of the LTNP comments on increase in visitors daily having regard to existence of protected areas

potential of tourism proposed in Land Use Plan of Zilina Region		cooperation between villages	proposed visitors daily in Amendments (2008) to Land Use Plan of ZR ¹⁸		new lodging facilities proposed in individual land use plans	land use plans proposing development reaching the borders of LTNP (SPA), or within LTNP	
Municipality	Region		Before	proposal	use pluits	(SPA)	
Hybe	national importance	no	600	800	data not provided	no	
Važec	national	no	300	400	2092	no	
Východná	national	yes	200	400	820	no	
Kráľova Lehota	national	no	300	700	1150	borders of LTNP	
Liptovský Hrádok	national	no	2100	3600	data not available	no	
Nižná Boca	international	no	1800	5000	data not available	data not available	
Vyšná Boca	international	no	3000	3500	data not provided	within LTNP	
Malužiná	regional	yes	400	600	150	no	
Liptovský Ján	international	no	4800	5100	3197	yes/borders of LTNP	
Závažná Poruba ¹⁹	national	no	3000	4300	data not available	no	
Liptovský Mikuláš	international	no	3000	4500	data not provided	borders of LTNP	
Pavčina Lehota	national	no	1000	3000	356	borders of LTNP	
Dem. Valley ²⁰	international	no	7000	12000	9365 (parking places)	within LTNP	
Lazisko	not mentioned	no	250	1500	215	close vicinity of SPA	
Partizánska Ľupča	national	no	700	4100	6000 visitors(summer)	crossing SPA	
Liptovská Lúžna	international	no	400	5000	1156	no	
Liptovská Osada ²¹	International	no	500	2000	1000 (project Gothal)	borders of LTNP, SPA	
Liptovské Revúce	not mentioned	no data	1800	2900	data not available	data not available	
		summary	31150	59400	9136 mentioned		

Table 3 Proposals in the land use plans of villages encouraged by proposal of the Land use plan of Zilina Region

¹⁸ In the Land Use Plan of Žilina Region there were 2 columns estimating proposal of daily visitors: a)

[&]quot;visitors daily in the main season" and b) "visitors daily". We worked with "b" ¹⁹ Závažná Poruba and Demänovská Dolina are in the Land Use Plan further referred to as land backups for Olympic Games. The limit on number of visitors to D. Valley determined in the original Land-use plan of Žilina Region (1998) is 8400.

According to Administration of LTNP, since the body did not receive an answer regarding the validity of the land use plan from Regional Building Bureau (since 2010), the land use plan is not valid. The procedures go on and projects are being implemented, despite the fact that no relevant body knows, whether the land use plan is valid or not. When and use plan of zones were being introduced., the project Linkage of Chopok North and Chopok South was undergoing the EIA process. Land Use Plan of some zones looked very much alike

²¹ The Development Proposal for L. Osada was designed by Ing. F. Veselý, partner of Yvex Ltd., who was an investor of the project Liptovská Osada- Dlhé -Gothal. Liptovská Osada-Dlhé was based on this development proposal. Municipal council agreed that the plan would be adopted as official development program of Liptovská Osada and official backround document for Land Use Plan of Žilina Region.

⁶⁵

This document introduces Vyšná Boca, Nižná Boca, Demänovská dolina, Liptovský Ján as centres of international importance that need to be developed in a qualitative way with high-standard amenities. That can mean sporting facilities. Those are being built in the national park in three of four mentioned villages. Proposed number of visitors in future in Nižná Boca is suggested at 4400, from today's 1800.

Villages spread their built-up areas closer to the LTNP, closer to NATURA 2000 sites, proposing mainly "dynamic recreational activities" (Fig.12). That is e.g. the case of Lazisko (Fig.13), Liptovský Ján (Fig.14), Pavčina Lehota (Fig. 15).



Figure 12 Location of activities and development proposed in land-use plans



Figure 13 Land Use Plan of Lazisko proposing to enlarge the built-up area to the borders of SPA



Liptovský Ján

Figure 14 Changes and Amendments to Land Use Plan of

Pod Kamenicou 22 11 10 3 4 5 5 5 125-000

spreads the settlement borders to the close vicinity of the LTNP

Fig 15 Location of proposed ski centre Žiarce on the borders of the LTNP

Land Use Plan of Zilina Region introduced (as of today valid) Changes and Amendments no 4. Partizánska Ľupča proposed ski slope crossing the SPA in its land use plan (Fig.16). Ski slope in the cadastral area Partizánska Ľupča crossing the Special Protection Area Nízke Tatry is displayed in the graphic part of the mentioned Changes (Fig.17).



Figure 16 Administration of the LTNP alleging the proposed ski lift of the ski resort

Ľupčianska Magura proposed in the Land Use Plan of P. Ľupča crosses the SPA Nízke Tatry



Figure 17 Graphic part of Land Use Plan of Zilina Region, Changes no.4 displays a ski lift crossing the SPA

Land Use Plan of Žilina Region did not propose any guidance for the villages and did not suggest any possible cooperation for Low Tatras region to become a healthy sustainable ecological tourism product. The only villages that mention in their land use plans (development plan) the possibility to promote, to use products of other villages and not duplicate the activities in vain are Malužiná and Liptovská Porúbka.

Villages do not work as partners. They compete between each other and will offer the same tourism product, going behind the treshhold of what the ecosystem services can give and without taking into account the natural heritage. New ski lifts (ski resorts) are

proposed to be built in Demänovská Dolina, Pavčina Lehota, Liptovská Lúžna, Liptovská Osada, Patizánska Ľupča, Nižná Boca, Vyšná Boca. Land Use Plan of Žilina Region proposed five golf courses to be designated in the Liptov Region (3 outside the study area): Partizánska Ľupča, Demänová-Bodice, Jamník, Sielnica, Liptovská Kokava. Besides these, Važec has a site classified for designing a golf course in its land use plan as well. In addition, there is a project approved in Liptovská Osada (Gothal) consisting of a golf course.

The only brief idea of cooperation between the villages is to physically connect them. In this way, as mentioned in the strategic documents, centre in Liptovský Ján would be connected to Závažná Poruba, creating upper-regional recreational zone. Závažná Poruba is supposed to create closer relation with the new sporting facility in Il'anovo. Demänová, the main part where Liptovský Mikuláš plans further development, will be close to built up area of Ploštín and Il'anovo. Bodice is planning to make a direct connection with recreational centre of cottages (to be) in Andice and Benice. Pavčina Lehota plans a connection leading south to Bodice. Proposal of building the road between Pavčina Lehota and Lazisko to allow further tourism development and cooperation of these two villages is in the draft of Land use plan of Lazisko. Villages lying in picturesque valley of their own suggest creating a big tourist centre connecting many of the valleys (Fig.18).It will make it less smooth for animals to migrate through Liptovská Basin between Low Tatras, High Tatras, Veľká Fatra.



Figure 18 Development proposed separately by individual villages would connect the valleys, placing a burden on the buffer zone of the park

IUCN see the buffer zone of the Category II –National Park as follows:"*The* surrounding landscapes can have varying degrees of consumptive or non-consumptive uses but should ideally serve as buffers to the protected area." In Slovakia, buffer zone is, as is the case of LTNP, seen as something which main function is to be built- up.

4.1.3 Law Implementation

4.1.3.1 Derogations

In 2007-2011 101 derogations from nature protection provisions under the Act no 543/2002 Coll. on nature and landscape protection were provided to activities in the LTNP and its buffer zone in Žilina Region.

Table no.4 indicates the derogations given in 3rd- 5th degree of protection. Besides these, some derogations in 2nd degree of protection were obtianed, of commercial character- (amongst them parking, or entering by car to the area outside the settlement boundaries). Namely they were in: 2007: Pavčina Lehota, 2009: Kráľova Lehota, Svarín, 2010: Kráľova Lehota, Hybe, 2011: Kráľova Lehota, Hybe.

Most of the activities labelled in the Table as "commercial (com)", represent "parking, or entering by car to the area outside the settlement boundaries". 3 derogations out of "com" were given to hiking and ski mountaineering activities in the fifth degree of protection in Demänovská Valley (2) and Ďumbier. 32 derogations were given to sport activities and activities producing light and noise pollution (2007-2010 (6), 2011 (8)) in the third degree of protection. In 2010 the activity of building a parking lot in National Nature Reserve Demänovská Valley obtained a derogation.

17 derogations were given for the activites in the context of calamity (not defined closer) that occured earlier in the area- all in the fifth degree of protection.

oroo	degree of	year							
aica	protection	2007	2008	2009	2010	2011			
LTNP as a complex	5	2 (research)	1(research)	/	/	1(research)			
	3	8 (commercial)	7 (com.),	6(com.)	7(com.)	9(com.) 1(research)			
Demänovská	4	/	/	2(com.)	/	1(com.)			
Valley	5	2 (forestry) 1(geol. works) 1(banner) 2(commercial)	3(forestry) 1(research) 1(geol. works)	2(forestry) 3(com.) 1(research)	3(com.)	1(com.)			
	3	/	/	/	/	1(research)			
Liptovský Ján	5	2(forestry) 1(commercial)	2(forestry)	2(forestry) 2(com.)	1(research) 1(com.)	1(research) 1(com.)			
Lipt. Porúbka	5	2(forestry)	1(forestry) 1(info table)	/	/	/			
	2	/	/	/	1(com.)	1(com.)			
Lipt. Mikuláš	4	/	1(research) 1(cut down)	/	/	/			
Ružomberok	3	1 (commercial)	/	/	/	/			
Partizánska Ľupča	5	/	1 (forestry)	/	/	/			
Liptovská Osada	4	/	/	/	/	1(water treatment facility)			
Východná	3	/	/	1 (com.)	/	1(com.)			
Važec	3	/	/	1(com.)	/	/			

Table 4 Derogations from the Art. 13-16 Act 543/2002 on Nature and Landscape protection in 2007-2011

That a developer asks for a derogation in the area of interest, that can be expected. The law that stands for factual and unbiased nature protection should regulate the wishes of investors and developers. It should not happen that a parking lot obtains a derogation from the nature protection in the highest degree of protection the country provides.

4.1.3.2 Implementation of the Forest Act

Act no 326/2005 Coll. on forests was introduced in the previous part of the thesis. Article 23(5) states that in case that a possible threat is identified represented by pest occurence, forest managers have a duty to proceed with the accidential harvest for the

sake of the forest stands in order to stop pest infestation. Accidential harvest is any timber-harvesting activity that is part of measures taken to battle the pest infestation.

East part of study area, around Bocká Valley was among those recognized as such area (Fig 19, 20).



Figure 19 Bocká Valley as of July 17th, 2012, author: Ľubomír Klocok

Harvesting for wood, often claimed that it is happens mainly in context of Norway Spruce bark beetle investation, threatens ecosystems in other parts, e.g. Demänovská Valley (Fig. 21).

74


Figure 20-Walking trail Rovná hoľa- Nižná Boca as of July 2012, author: Ľubomír Klocok



Fig 21 Demänovská Valley seen from the walking trail Demänovská Valley-Chopok, date: 4th July 2012 author: Ján Baroš

4.1.3.3 Harvest in Primeval Forests

There are 10 primeval forests / fragments classified (2011) in the study area (Table 5). Three of them lie partly in the 5th degree of protection, 7 are in the third degree of protection. All are situated within NATURA 2000 sites. Majority of them has been or is threatened by timber harvesting. They are home to owl species, *Tetrao urogallus*, large carnivors, etc.

Despite the fact that FSC Slovakia informed wood manufacturers about localization of primeval forest, in 2012 more clear-cutting was executed in Veľký Bok primeval forest. According to experts this forest is of the similar quality to two iconic Slovak primeval forests, Badínsky prales and Dobročský prales (Vražda, 2012).

Table 5 Harvest of wood in primeval forests

			threatened by	harvested after classification as
Primeval Forest	cadastral area	protection	harvest of wood	primeval forest
~	Kráľova			
Chmelienec	Lehota	LTNP, SPA (SKUEV 0310)	yes	no
	Kráľova			
Veľká Vápenica	Lehota	LTNP, SPA (SKUEV 0310)	yes	no
	Kráľova			
Hronovisko	Lehota	LTNP, SPA (SKUEV 0310)	yes	no
Fišiarka	Nižná Boca	LTNP, SPA (SKUEV 0310)	yes	no
	Kráľova			
Nemecká	Lehota	LTNP, SPA (SKUEV 0310)	yes	no
	Kráľova			
Kolesová	Lehota	LTNP, SPA (SKUEV 0310)	yes	no
Veľký Bok	Malužiná	LTNP, SPA (SKUEV 0310)	yes	yes- 2012
Ohnište	Lipt Porúbka	LTNP SPA (SKUEV 0302)	through derogation	no
omnote	Elpt. I orubia		-given in	
		National Nature Reserve	2007,2008	
<u> </u>			through	
Dumbier	Liptovský Ján	LTNP, SPA (SKUEV 0302)	derogation	no
			-given in 2007,	
		National Nature Reserve	2009	
	¥		through	
Hučiaky	Lipt. Stiavnica	buffer zone, National	derogation	no
		Nature Reserve Salatín,		
		SPA (SKUEV 0917)		

Slovakia is failing to provide the protection for the sites of community importance althought it bound itself to provide it- protection to be provided for Habitats of community interest in Kráľovohoľské Nízke Tatry and Ďumbierske Nízke Tatry includes: Protection of primeval forests fragments.

In France the government is working closely with local landowners and users to put in place an agreed management plan for each site. These plans are developed through a local steering committee- which is made up of local authorities, landowners and users, representatives from rural agencies, sectoral organisations, nature NGOs and ecology experts and anyone else who has an interest in the Natura 2000 site. Once a consensus has been reached, the management plan is officially approved by the State (EC DG Environment, 2012).

In Slovakia, no consensus, no agreement is being tried to be concluded. Proposers suggest projects in LTNP, in NATURA 2000 sites or of nature that affect protected areas. In the regulating processes these are being approved in context of development in the prospective sites of Slovak rural, mountaineous areas.

4.2 Information Failure

4.2.1 Public Awareness

Rising the voice in the EIA process within public hearing is the way how to express the consent or disapproval. It is also the way how to get more information, how to ask directly

the proposer of the project, the planner, what is the purpose of the project, what are the benefits, by-passes, negatives, what implementation would mean for a village. This section of the thesis assess the attendance of members of the public at public hearing in EIA process.

Public hearings for four projects proposed in Demänovská Valley were not followed by any members of the public (Table 6).

Members of the public present at the hearings (the case of 13 hearings) did not comment at all at 8 of the hearings. One of those was the project Linkage of Chopok North and Chopok South and modernisation of Chopok North and Chopok South, the

most extensive project ever considered in LTNP. Project is not in compliance with the Land Use Plan of Zilina Region, claims to be in compliance with Land Use Plan of Demänovská Valley, which is not valid. Furthermore, it needed derogation from species protection as well as from provisions for protection areas.

Area	.	Attendance at the public	From that- members of the	comment from the members of
Demänovská Valley	Localization	hearings	public	the public
Recreational Site RESORT	buffer zone	4	0	0
Reconstruction, extension of cable				
car and ski slope Grand-Brhliská	LTNP	8	0	0
Reconstruction and extention of				
cable car and ski slope Biela púť	LTNP	info not given	info not given	0
Transition of a ski lift to a cable car		_	_	
Záhradky -Priehyba	LTNP	7	info not given	0
Restaurant Priehyba	LTNP	6	1	1
Transition of hotel Chopok to welness hotel	I TNP	4	0	0
Funitel- Transition to modern cable	LIM		0	0
car technology	LTNP	10	3	0
Ski Slope Turistická- widening of		without	without public	without public
existing ski slope	LTNP	public hearing	hearing	hearing
Higher Category Hotel	LTNP	12	1	1
Linkage of Chopok North & South	LTNP	17	info not given	0
Linkage Biela Púť- Priehyba	LTNP	7	0	0
		without	without	without
Chopok West	LTNP	p.hearing	p.hearing	p.hearing

Table 6 Attendance at the public hearings as a stage of EIA process (projects in Demänovská Valley)

The highest number of members of the public commenting at one hearing was 6 (Bačova Roveň)-mainly calling for project approval (Table 7).

The highest number of people against the project expressing their opinion at public hearing, out of all proposed projects (Demänovská Valley, other sites) was 5- for project Žiarce. The second highest was 2 (STIV Čertovica- the third person against was the Chief of The Administration of LTNP).

In the world the human behaviour of "NOPE" (Not On Planet Earth) and "NIMB" (Not In My Backyard) scheme is recognized within EIA process. In the study area none of

these patterns exist, nor others giving strongly consenting opinion. From the information obtained (Table 6 and 7) we can conclude that people are not interested in what is happening and what will happen.

Area Liptovský Ján	location	Attendance at the public hearing	From that- members of the public	comment from the members of the public
Alexandra wellness	buffer	without p.	1	1
hotel	zone	hearing	1	1
	buffer			
Sunvalley II	zone	8	info not given	0
Pavčina Lehota				
	buffer			
Žiarce	zone	info not given	at least 5	at least 5
Vyšná Boca				
				'fruitful
STIV Čertovica	LTNP	info not given	info not given	discussion"
Bačova Roveň	LTNP	info not given	info not given	at least 6
Nižná Boca				
		without p.	without p.	without p.
Chopec	LTNP	hearing	hearing	hearing
Partizánska Ľupča				
ATLADIA Wellness	buffer			'fruitful
Centre	zone	18	13	discussion"
Liptovská Osada, Lipto	ovská Lúžna			
	buffer			
Gothal	zone	5	info not given	0

Table 7 Attendance at the public hearings as a stage of EIA process (projects outside Demänovská Valley)

4.3 Market failures

4.3.1 Not seeing protected areas as a limit

Despite the knowledge of project taking up the area in LTNP, developers propose the projects and do not back out even though the nature concervancy bodies opose the idea strongly. That is the case of all the projects suggested to be built in Demänovská Valley, Nižná Boca and Vyšná Boca (Fig.22) mentioned in the first part of the thesis. Extensive project Gothal is currently being under construction in Liptovská Osada and Liptovská Lúžna (Fig. 23).



Figure 22 Project STIV Čertovica located partly in the LTNP



Figure 23 Project Gothal comprises also a deer park located on the borders of SPA Nízke Tatry

As seen in the Table no. 8 and Table no. 9, investors, developers and entrepreneurs do not see neither LTNP nor NATURA 2000 sites as a limit.

In 2010 a developer requested a derogation from provisions for protected areas (Demänovská Valley). Administration of the LTNP in its letter from 21st June 2010 answered that does not recommend that this project obtains a derogation. The project was about designation of children's ski lift and ski slope in the small-scale protected area Demänovská Valley in 5th degree of protection, in SPA Nízke Tatry and SAC Ďumbierske Tatry (Fig. 24).



Figure 24 Administration of the LTNP reacts on requests for derogation from nature protection in the site of the 5th degree of protection

What is more, cumulative impacts are not taken into account in none of the cases, although duplication of the activities, as one of the main features of unsustainable tourism development are plentiful. The proposed projects do not reflect the market for the services they would provide. The current lodging capacities are not exhausted. None of the projects analysed mentions the existence of the same kind of amenity as a limit to its own activity. All of the projects represent contribution to hard forms of tourism in the area.

The proposed projects do not reflect the climate situation of the region (=> hard/ nonsustainable form of tourism). Despite the fact that scientific publications set out the nonsustainable nature of ski lifts – those built under 1500 m may become uneconomic by 2030 (Holko, Kostka, 2004), Nearly all ski lifts suggested to be built are of such nature. They are as follows: Partizánska Ľupča, Pavčina Lehota, Liptovská Lúžna, Vyšná Boca, Nižná Boca. Exceptions are some in Demänovská Valley, which will take precious areas above the tree line.

Except for one project, none of those (Table no. 8 and Table no. 9) that take up the land in the third degree of protection, sometimes part of NATURA 2000 network, deals with the value of the ecosystem lost after the proposed activity is implemented. In the case of that particular one- Funitel- social value of habitats affected was estimated at 108 222 EUR.

Table 8 Projects proposed in Demänovská Valley in 2007-2012 from the proposer point of view

Area	localization	form of	cumulative effects	valuable areas respected by the	social value
Demänovská Valley ²²	localization	tourism	taken into account	project	social value
Recreational Site Resort	buffer zone	hard	no	no/biocorridor	not provided
Reconstruction and extension of cable car and ski slope Grand-Brhliská	LTNP	hard	no	no/LTNP	not provided
Reconstruction and extention of cable car and ski slope Biela Púť	LTNP	hard	no	no/LTNP	not provided
Transition of a ski lift to a cable car Záhradky- Priehyba	LTNP	hard	no	no/LTNP	not provided
Restaurant Priehyba	LTNP	hard	no	no/LTNP, 1000m from SPA	not provided
Transition of hotel Chopok to welness hotel	LTNP	hard	no	no/LTNP	not provided
Funitel- Transition to modern cable car technology	LTNP	hard	no	no/LTNP	108 222 EUR (habitats
Ski Slope Turistická- widening of existing ski slope	LTNP	hard	no	no/LTNP, close vicinity to SAC,SPA	not provided
Higher Category Hotel in Dem. Valley	LTNP	hard	no	no/100m- Vrbické Glacial Lake, 120m from SPA	not provided
Linkage of Chopok North and Chopok South	LTNP	hard	no	no/LTNP, SPA, SAC	[^] =229 163 570 EUR ²³
Linkage Biela Púť- Priehyba	LTNP	hard	no	no/LTNP,1200 m from SAC	not provided
Chopok West- Complex Tourism Centre	LTNP	hard	no	no/LTNP	data not available

²² As mentioned in one of the EIA reports by an affected entity, cut down performed since 2004-2010 (project Linkage of Chopok South and Chopok North not included) in the Norway spruce forests (Acidophilus spruce forests) of Chopok accounts for 502 244 m^2 . ²³ Info given only about value of the habitats of the whole area of parcels affected- 229 163 570 EUR

⁸²

Area	1 1	form of	cumulative	valuable areas				
Liptovský Ján	localization	tourism	into account	project	social value			
Alexandra wellness hotel	buffer zone	hard	no	threat not present	data not available			
Sunvalley II	buffer zone	hard	no	threat not present	106117 EUR (trees)			
		Pa	včina Lehota					
Žiarce	buffer zone	hard	no	no/SPA	not provided			
	Vyšná Boca							
STIV Čertovica	LTNP	hard	no	no/LTNP, SAC, SPA ²⁴	not provided			
Bačova Roveň	LTNP	hard	no	no/ LTNP, SAC, SPA	not provided			
	Nižná Boca							
Chopec	LTNP	hard	no	no/LTNP,SPA, SAC	data not available			
		Part	izánska Ľupča					
ATLADIA Wellness Centre	buffer zone	hard	no	threat not present	not provided			
	Lip	otovská O	sada, Liptovská l	Lúžna				
Gothal	buffer zone	hard	no	no/SPA in close proximity	not provided			

Table 9 Projects proposed in the study area outside Demänovská Vally in 2007-2012 from the proposer point of view

Ski centres in Demänovská dolina and Vyšná Boca are recognized as problematic development according to WWF (2008), being without long-term perspective of relative costs and benefits including economic, social and environmental factors.

4.3.2 Misusage of EU funds

A project of fire road in the study area was co-financed from EU funds located in the cadastral area of Liptovský Ján, in Jánska Valley. This road leads to the Stanišovská Cave and goes further to the National Park. After the fire road was built in 2010, National Nature Monument Stanišovská Cave opened to the public. What followed, was

²⁴ The proposer of the project STIV Čertovica was asked in initial stage of EIA process by a relevant body to propose an alternative outside the LTNP. He ignored it and proposed only 3 alternatives in the LTNP. Area is recognized as important biocorridor used by large carnivors.

⁸³

the lenghtening the bus route by about a kilometer from its former last stop using this fire road. The final bus stop nowadays reaches borders of LTNP.

The road is further used in an unregulated way by tourists visiting the cave (situated approximately 2,5 km from settlement borders) coming by car within the borders of the national park, which was not allowed before. As a consequence, a little illegal parking lot exists near the cave, its shortest distance to the table "National Nature Reserve Jánska Valley" is 2 metres (Fig.25). Jánska Valley is classified as one of the most threatened small scale protected areas by tourism industry in Slovakia (Gajdoš, 2008).



Figure 25 Project of fire road is misues for commercial activities and threatens the small- scale protected area Jánska Valley, of the 5th degree of protection

All the stakeholders who could, make the use of The EU funded fire road, as the usage is not regulated in any way -a municipality by lenghtening the bus route to the borders of LTNP, the tourists by entering by car to the LTNP and parking there.

Another project cofunded by EU is Complex Tourist Centre Chopok West (disccussed in the Chapter Government Failures). Under the code 25130120002 financially supported under Operational Programme Competitiveness and Economic Growth 2007-2013, with overall expenditure of 12 mil EUR, financial support from the EU funds: 6 mil EUR (Fig.26).

84

The programme was structured according to four priorities. Priority 3 aimed to support the use of the natural, cultural, and existing potential of the Slovak Republic for the development of sustainable tourism. The focus of this priority is the promotion of Slovak tourism, both locally and internationally (European Commission, 2012)

	EUROPSKA JNIA	REMARK MARKEN KENNELSEN:TIGENOPROVI ALI OSTRODUSION PROT		
. č.	Zoznam zmluvne viaza Názov prijímateľa	ných projektov v rámci výzvy KaHi Názov projektu	R-31SP-0801 – Výška zazmluvneného NFP (v EUR)	september 2012 Miesto realizácie projektu (NUTS III)
1,	Elevation s.r.o.	Rekonštrukcia hotela Sliezsky Dom	5 292 397,81	Prešovský kraj
2.	HVT, s.r.o.	Prestavba Hotela Minerál Dudince	4 680 749,52	Banskobystrický kraj
Э.	EZEX s.r.o.	Zvýšenie konkurencieschopnosti hotela AMDASSADOR jeho modernizáciou a	582 974,74	Košický kraj
	and the second se	compressios ou posseytovanyen stanco	the second value of the second	
-		Vybudovanie komplexného strediska	6 000 0000 00	Žalinekai kons

Complex Tourist Centre Chopok West, Zilina Region

This project did not reduce the existing disparities in the economic performance of individual regions cause Demänovská Valley is already one of the most competitive tourism centre in Slovakia. Neither, while profiled as a ski centre, was it built in a sustainable manner.

5 Conclusion

In Demänovská Valley out of 12 project two projects (16,7%) needed a derogation from species protection and 8 (67%) needed a derogation from provisions for protected areas (Art 14 (1) d) Act 543/2002 Coll Four projects (42%)were not in line with Land Use Plan of Zilina Region.

Out of 8 projects proposed in parts of study area other than Demänovská dolina, three were situated in the LTNP. Three approved projects did not comply with the Land use plan of Zilina Region. Three (42,9%) projects that obtained a consenting decision in EIA process needed derogation from species protection and 2 (28,6%) from provisions for protected areas.

Controversy of the level,,3", associated with a project the was not in compliance with a land use plan and simultaneously needed derogation from species protection and derogation from provisions for protected areas, represented the nature of 20% of all the projects proposed in the study area.

Changes and Amendments no 3 (and subsequently 4 follow in its footsteps) to the Land Use Plan of Žilina Region. failed its regulatory function to some extent, leaving out the complex examination of many potential threats to the biodiversity. Proposed increase in number of daily visitors or status given to a village was in numerous cases followed by proposal of unrestrained development in individual villages (Demänovská Valley, Liptovský Ján, Važec, Partizánska Ľupča, Vyšná Boca- ski development).

Changes and Amendments introduces Vyšná Boca, Nižná Boca, Demänovská Valley and Liptovský Ján as centres of international importance which need to be developed in a qualitative way with high-standard amenities. Village welcome the proposal and sport facilities are being built in the national park in three of four mentioned villages, namely being Vyšná Boca, Nižná Boca, Demänovská Valley.

27,78 % out of villages that have their land use plan elaborated, propose spreading the development sites to the borders of the LTNP. 5,56% deem appropriate introducing activities within Special Protection Area Nízke Tatry.

Out of 101 derogations from nature protection throughout years 2007-2011 32 derogations were given to sport activities and activities producing light and noise pollution in the third degree of protection. In 2010 the activity of building a parking lot in the fifth degree of protection obtained a derogation. 17 derogations were given for the activities in the context of calamity in the fifth degree of protection.

Ten out of 10 primeval forest fragments are situated in the NATURA 2000 sites. . All of them except for those lying in the fifth degree of protection have been or are threatened by timber harvesting. In 2012 more clear-cutting was executed in Veľký Bok primeval forest.

Out of 20 projects, public hearing was held in the process of evaluating the impact on 16 of the. Out of those public hearing, 4 were not followed by members of the public at all (7 reports did not mention attendance of the public). On 10 of the public hearings members of the public did not pose and question and did not comment on the project.

Investors, developers and entrepreneurs do not see neither LTNP nor NATURA 2000 sites as a limit. None of the projects analysed mentions the existence of the same kind of amenity as a limit to its own activity. All of the 20 projects represent contribution to hard forms of tourism in the area. None of the proposed projects for which it is a relevant issue reflects the climate situation of the region and addresses climate change.

Except for one project, none of those (Table no. 8 and Table no. 9) that take up the land in the third degree of protection, sometimes part of NATURA 2000 network, deals with the value of the ecosystem lost after the proposed activity is implemented

Project of winter sporting amenities located in the LTNP- Complex Tourist Centre Chopok West was financially supported under Operational Programme Competitiveness and Economic Growth 2007-2013.

6 Literature and Sources

A-Project 2003: Plán hospodárskeho a sociálneho rozvoja obce Liptovská Porúbka na roky 2004-2013

Act no 543/2002 Coll on Nature and Landscape Protection

Act no.24/2006 Coll. on environmental impact assessment,

Act no 326/2005 Coll on Forests

BENNETT A.F.,1990: Land use, forest fragmentation and the mammalian fauna at Naringal, south-western Victoria - Australian Wildlife Research, online: http://app.iucn.org/dbtw-wpd/edocs/fr-021.pdf, cit. 12.12.2012

BENNETT A.F.2003: Linkages in the Landscape: The Roles of Corridors and Connectivity in Wildlife Conservation - IUCN Gland, Switzerland and Cambridge, 254 p.

BRAGDON S., GARFORTH K., HAAPALA., 2008: SAFEGUARDING BIODIVERSITY: THE CONVENTION ON BIOLOGICAL DIVERSITY'- online: http://www.asareca.org/sites/default/files/PAAP%20Newsletter%20Vol%2011%20No %2010.doc, cit. 10.11.2012

BRONKHORST, S., 2002: *In:* The Convention on Biological Diversity, Reflections on 10 years RIO: views from the Netherlands- Netherlands Commitee for IUCN, Amsterdam, 40p.

ČENDULOVÁ, E., 2010: Land Use Plan of Liptovský Mikuláš- Text of SEA Final Record. – online, http://www.enviroportal.sk/sk/eia/detail/uzemny-plan-mesta-liptovsky-mikulas, cit 12.12.2012.

ČERNOHOUS, T., 2008: Rekonštrukcia a predĺženie OHZD a lyžiarskej trate GRAND-

-BRHLISKÁ- Text Of the Final Record- online, http://eia.enviroportal.sk/detail/rekonstrukcia-predlzenie-ohdz-kabinkova-lanovkalyziarskej-trate-grand, cit. 10.11.2012

ČERNOHOUS,T. 2007. Rekreačný areál Demänovská dolina resort -Text Of the Final Record – online, http://www.enviroportal.sk/sk/eia/detail/rekreacny-areal-demanovska-dolina-resort, cit. 10.11.2012.

CBD Secretariat,1993: History of the Convention- online, http://www.cbd.int/history/, cit 8.9.2012.

CHANGENET, 2005: Požiadajte slovenského prezidenta o vrátenie lesného zákona parlamentu- online,

http://www.changenet.sk/?section=kampane&x=108855&cat=375392. Cit. 15.1.2013.



Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

Council Directive 79/409/EEC on the conservation of wild birds

CUNNINGAM, 1997: Environmental Science-The McGraw-Hill Companies, Boston, 634s.

CUKOROVÁ V.,2007: Land Use Plan of Kráľova Lehota-.online, http://www.uzemneplany.sk/upn/kralova-lehota/uzemny-planobce/cistopis/text/sprievodna-sprava, cit.12.12.2012.

CUKOROVÁ V., 2009: Land Use Plan of Važec-.online, www.obecvazec.sk/uzemnyplan-obce.phtml?id3=38265, cit. 12.12.2012.

CUKOROVÁ V., 2007: Land Use Plan of Východná.- online, http://www.uzemneplany.sk/upn/vychodna/uzemny-planobce/schvaleny/text/sprievodna-sprava, cit. 12.12.2012.

DE WIT P, VERHEYE H.W. 2003:Land Use, Land Cover and Soil Sciences-Encyclopedia of Life Support Systems. Oxford:Eolss Publishers, Oxford, 278 p.

DJOGHLAF A. 2007: In: Communiqué of the Secretariat of the Convention on

Biological Diversity- online, http://www.cbd.int/doc/press/2007/pr-2007-09-18-indigenous-en.pdf, cit. 9.11.2012

DOUMA, W. T., MASSAI, L., BRONKHORST S., VEENING, W. J. 2009: Feasibility study for the Hague Environmental Law Facility- Institute for Environmental Security, Hague.

DUDLEY N., 2008: Guidelines for Applying Protected Area Management Categories-IUCN, Gland, Switzerland: IUCN, online, http://data.iucn.org/dbtw-wpd/edocs/paps-016.pdf, cit. 12.12.2012.

EC-DG Agriculture and Rural Development. 2012. The Common Agricultural Policy.A partnership between Europe and Farmers- Publications Office of the European Union, Brussels, 16 p.

EC, 2012. The Habitats Directive- Celebrating 20 years of protecting biodiversity in Europe-. DG Environment, online, http://ec.europa.eu/environment/nature/pdf/20yrs_brochure.pdf, cit. 15.1.2013.

EC, 2011: Investing in NATURA 2000: For nature and people- DG Environment, online,

http://ec.europa.eu/environment/nature/info/pubs/docs/brochures/investing%20in%20N 2000%20brochure.pdf, cit. 9.11.2012.

EEA, 2011:NATURA 2000 Standard Data Form –online, http://natura2000.eea.europa.eu/natura2000/SDFPublic.aspx?site=SKCHVU018, cit. 15.1.2013.

EUROPEAN COMMUNITIES. 2008. The Economics of Ecosystems and Biodiversity. An interim report- online, http://ec.europa.eu/environment/nature/biodiversity/economics/pdf/teeb_report.pdf,cit. 9.11.2012.

European Commission, 2012: Development programmes- Slovakia, online, http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?LAN=7&gv_PAY =SK&gv_reg=ALL&gv_PGM=1234&gv_defL=7, cit. 15.1.2013.

FAO, 2007: Global forest resources assessment [CD-ROM]- FAO, Rome.

FAJČÍK, 2011. Changes and Amendments no 1 to Land Use Plan of Partizánska Ľupča.- online, http://www.partizanskalupca.com/dokumenty/uzemny_plan.pdf, cit.15.1.2013.

FEW R., 2001: Animal Watch- Dorling Kindersley Limited, London, 60p.

FRANKHAM R., BALLOU, J.D. et BRISCOE, D.A., 2002: Introduction to Conservation Genetics- Cambridge University Press, Cambridge.

FUTÁK J., 1980: Fytogeografické členenie. – Atlas Slovenskej socialistickej republiky, Bratislava:1980.

GAJDOŠ Ľ. 2008. Cestovný ruch a jeho vplyv na životné prostredie v Slovenskej

republike k roku 2007. Indikátorová sektorová správa- online, http://enviroportal.sk/pdf/sektor/Turizmus_sektor_07.pdf, cit. 15.1.2013.

GASTON K.J.2010: Conservation Biology for Allonline,http://www.conbio.org/images/content_publications/Chapter2.pdf, cit. 9.11.2012.

GOČOVÁ, A.-GOČ, M.1998: Land Use Plan of Pavčina Lehota

GODDE P.M. et al. 2000: Tourism and development in mountain regions-CABI Publishing, Oxon, 357p.

GOTHAL RESIDENCE, p2011: Project Gothal- Urbanism- online, http://gothal.sk/index.php?recipientId=4, cit. 15.1.2013.

HARDIN G.- BADEN J., 1998: Managing the commons- Indiana University Press, Indiana, 264 p.

HAVASI O. 2008: Chopec Tourist Resort-Notification on the submission- online, http://www.enviroportal.sk/en/eia/detail/vystavba-strediska-cr-nizna-boca-horne-luckychopec-v-k-u-nizna-boca, cit. 15.1.2013.

HUBA M.2013: Olympiada v Tatrach je ekonomicka samovrazda, varuje ekonom. *In*:SME, online, http://www.sme.sk/c/6703120/olympiada-v-tatrach-je-ekonomicka-samovrazda-varuje-ekonom.html, cit.17.2.2013.

HUDEC M. 2011: Land Use Plan of Malužiná- Proposal – online, http://maluzina.uzemnyplan.sk/podklady-obec, cit. 15.1.2013.

HUGHES A. R., INOUYE B. D., JOHNSON M. T. J., UNDERWOOD N., et VELLEND, M. 2008: Ecological consequences of genetic diversity- Ecology Letters 11,p.609–623.

HUNTER, L. M. 2002: Fundamentals of Conversation Biology- Department of Wildlife

Ecology: Maine, 547p.

IUCN.2010. International Year of Biodiversity - investing in nature, improving lives.online, http://www.iucn.org/news_homepage/?4490/International-Year-of-Biodiversity---Investing-in-Nature-Improving-Lives, cit. 9.11.2012.

IZAKOVIČOVÁ Z.- MIKLÓS L. 2006: Atlas reprezentatívnych geoekosystémov

Slovenska- SAV, MŽP, MŠ SR, Bratislava, 219p.

JANIGA et al. 1993: ZOH 2006 na Slovensku v pradive života- In DAPHNE, online, http://

www.seps.sk/zp/daphne/casopis/982/11.htm, cit. 9.11.2012

JASÍK M.- POLÁK P., (eds.), 2011: Pralesy Slovenska. FSC Slovakia, Banská Bystrica, 228p.

JEDLIČKA L.-KALIVODOVÁ E., 2002: Zoogeografické členenie. *In*. Atlas krajiny Slovenskej republiky- Ministry of the environment, Slovak Environmental Agency, Bratislava, Banská Bystrica, 342p.

KOLOČÁNYOVÁ Z.. 2009. Zmena apartmánového domu Chopok na Wellness Hotel

Chopok ****- Text Of the Final Record- online,

http://eia.enviroportal.sk/detail/zmena-apartmanoveho-domu-chopok-na-wellness-hotel-

chopok****-depandanc, cit. 12.12.2012.

KOREŇ 1993: In ZOH 2006 na Slovensku v pradive života- In DAPHNE, online, http://

www.seps.sk/zp/daphne/casopis/982/11.htm, cit. 9.11.2012

KOSTKA Z. et HOLKO L. 2004: Expected impact of climate change on snow cover in a small mountain catchment". *In*: Proceedings: TTL Conference on 'Snow"- Vienna University of Technology, Vienna.

KROPITZ P- PIVARČI M., 1998: Územný plán veľkého územného celku Žilinský krajonline, http://www.regionzilina.sk/sk/samosprava/odbor-regionalneho-rozvoja/uzemneplanovanie/upn-vuc-zk/, cit. 9.11.2012.

KUCERAVY A.,2008. Výmena OHDZ Záhradky – Priehyba- Text Of the Final Record –online,

http://www.enviroportal.sk/sk/eia/detail/vymena-ohdz-zahradky-priehyba-demanovska-dolina, cit. 12.12.2012.

KUCERAVY A.,2008: Samoobslužná reštaurácia Priehyba- Text Of the Final Record.online, http://eia.enviroportal.sk/detail/samoobsluzna-restauracia-priehyba-demanovskadolina, cit. 9.1.2013.

KUFČÁK E., 1986: Liptovský Mikuláš. Monografický zborník- Stredoslovenské vydavateľstvo, Banská Bystrica. 488p.

LANDE R. 1988: Genetics and demography in biological conservation - Science, 241, 1455–1460.

LANE, B. 1994. *In* Managing tourism and hospitality services.2006. Biddles Ltd, King's Lynn, 337 p.

LAURANCE W.F. 2002: Ecosystem Decay of Amazonian Forests Fragments: A 22year Investigation. *In* Conservation Biology, Volume 16, No.3, p605-618.

LEFEVRE- MARTON, J.2010: IN International Year of Biodiversity - investing in nature, improving lives- IUCN, online, http://www.iucn.org/?4490/International-Year-of-Biodiversity---Investing-in-Nature-Improving-Lives, cit. 9.11.2012.

LUCIAK M.2007: Rekonštrukcia a predĺženie OHDZ a lyžiarskej trate Biela púť- Text Of the Final Record- online, http://www.enviroportal.sk/sk/eia/detail/rekonstrukcia-predlzenie-ohdz-lyziarskej-trate-biela-put, 15.1.2013.

LUCIAK M., 2008: Dostavba lyžiarskeho strediska SKI Centrum Bačova Roveň- Text of the Final Record- online, http://www.enviroportal.sk/sk/eia/detail/dostavba-lyziarskeho-strediska-ski-park-centrum-bacova-roven-oddychova, 15.1.2013.

LUCIAK M., 2005: Liptovská Osada- Dlhé- Text of the Final Record, online, http://eia.enviroportal.sk/en/detail/liptovska-osada-dlhe, cit. 15.1.2013.

LUKÁČ P., 2009: Modernizácia rekreačno-športového strediska STIV Čertovica -



Text Of the Final Record, online, http://eia.enviroportal.sk/detail/modernizacia-rekreacno-sportoveho-strediska-stiv-certovica, cit.15.1.2013.

LUKÁČ P., 2009: Funitel.-Text Of the Final Record, online, http://eia.enviroportal.sk/sk/detail/funitel-demanovska-dolina, cit. 15.1.2013.

LUKÁČ P., 2011: Obnovenie prepojenia Chopok Sever- Chopok Juh- Text of the Final Record, online, http://www.enviroportal.sk/sk/eia/detail/obnovenie-prepojenia-chopok-sever-chopok-juh-dobudovanie-lyziarskeho-s, cit. 15.1.2013.

MAZÚR E.- LUKNIŠ M., 1980: *In*: Atlas krajiny SR. Ministry of the environment, Slovak Environmental Agency, Bratislava, Banská Bystrica, 342p.

McGUINN J. 2011.Climate and biodiversity in EIA and SEA- online, http://www.milieu.be/index.php?page=climate-and-biodiversity-in-eia-and-sea, 9.11.2012.

MERKEL A. 2010. *In* International Year of Biodiversity - investing in nature, improving lives- IUCN, online,. http://www.iucn.org/?4490/International-Year-of-Biodiversity---Investing-in-Nature-Improving-Lives, cit. 9.11.2012.

MILLENIUM ECOSYSTEM ASSESSMENT 2005: MEA Findings- online, www.millenniumassessment.org/documents/document.359.aspx.ppt, cit. 9.11.2012.

MINDRIAK. 1993: In ZOH 2006 na Slovensku v pradive života- In DAPHNE, online, http://

www.seps.sk/zp/daphne/casopis/982/11.htm, cit. 9.11.2012.

MINISTRY OF ECONOMY p2012. Informačný list úspešne zrealiyovaného projektuonline,

https://docs.google.com/viewer?a=v&q=cache:hyCBS0gcM74J:www.mhsr.sk/ext_dok-informacny-list---webis--

sro/138355c%3Fext%3Dorig+&hl=sk&pid=bl&srcid=ADGEEShiFTdVz-

tjgY4TVnvFncnGVglSz1DOEXuKB8lCs6uTpI_GsYJK934Kq_LOCDBxl3xi9AkfztJij 99gwQOcAWRQq84foVNFBLBn4zFH2QoR2hGsx7P-da-

FZaugwlwVXYmpvUUn&sig=AHIEtbTcI83vvhEO2ObGVh2I_itCbZ9z1w,cit. 14.1.2013.

NELLEMANN C., CORCORAN E. (eds), 2010: Dead Planet, Living Planet – Biodiversity and Ecosystem Restoration for Sustainable Development. A Rapid Response Assessment. United Nations Environment Programme, GRID-Arendal, online, http://www.unep.org/pdf/RRAecosystems_screen.pdf, cit. 9.11.2012.

NIŽŇANSKÝ G. 2008: Lyžiarky areál Pavčina Lehota- Žiarce- Text Of the Final Record –online, http://eia.enviroportal.sk/detail/lyziarsky-areal-pavcina-lehota-ziarce, 15.1.2013.

NOSKOVÁ T. et al., 2010: Land Use plan of Vyšná Boca.

NOSKOVÁ T., 2009: Changes and Amendments no.3 to Land Use Plan of Liptovský Ján

ORR D. W. 2004: The last refuge: patriotism, politics, and the environment in an age of teror- Island Press, Washington, D.C.

PAPAJOVÁ- MAJESKÁ Ľ., 2011: Sunwally II-Text of the Final Record.- online, http://www.enviroportal.sk/sk/eia/detail/sunvalley-ii-liptovsky-jan, cit.12.12.2012.

PAVLISOVÁ D.,2011: Prepojenie Biela Púť- Priehyba- Text of the Final Recordonline, http://www.enviroportal.sk/sk/eia/detail/prepojenie-biela-put-priehyba, cit. 12.12.2012:

PAVLISOVÁ D.2012: ATLADIA Welness Areál- Text of the Final Record – online, http://eia.enviroportal.sk/en/detail/atladia-wellness-areal-partizanska-lupca, cit.15.1.2013.

PERES C.A. 2005:Why we need megareserves in Amazonia- Conservation Biology, p.728-733, online,

http://www.wwf.se/source.php/1229304/Keeping%20the%20Amazon%20forests%20st anding.pdf, cit. 9.11.2012.

PIVARČI M., 2011: Územný plán veľkého územného celku Žilinský kraj. Zmeny a doplnky č.4. –online, http://www.regionzilina.sk/files/odbory/RR/rok-2011/vuc4cist3.pdf, cit. 9.11.2012.

POTANČOK M., 2010: Zjazdová trať Turistická-úprava plôch po výruboch, rozšírenie zjazdovky- Statement- online, http://www.enviroportal.sk/en/eia/detail/zjazdova-trat-turisticka-k-u-demanovska-dolina-uprava-ploch-po-vyruboc, cit. 15.1.2013.

POTANČOK M., 2013. Result of the Screening Process for the Changes and Amendments no 4 of Land Use Plan of Liptovský Ján.- online, http://www.enviroportal.sk/sk/eia/detail/uzemny-plan-obce-liptovsky-jan-zmeny-doplnky-c-4, cit. 15.1.2013.

PRIMACK R.B.; JERSÁKOVÁ, 2001: Biologické principy ochrany přírody-Portal, Praha, 349p.

SHAFER C.L., 1990. Nature Reserves. Island Theory and Conservation Practice. Smithsonian Institution Press, 188p.

SHAFER C.L. 1990. Habitat Fragmentation and the Consequences for Wildlife. *In* BENNET, Andrew. The Roles of Corridors and Connectivitiy in Wildlife Conservation-IUCN, Gland, 254p.

SLEE B, 1998: *In* Managing tourism and hospitality services.2006. Biddles Ltd, King's Lynn, 337 p.

STATE NATURE CONSERVANCY, p2006: SKUEV 302 Ďumbierske Tatry- online, http://www.sopsr.sk/natura/index1.php?p=4&sec=5&kod=SKUEV0302, cit.15.1.2013.

STATE NATURE CONSERVANCY, c2006. SKCVHU018 Nízke Tatry- online, http://www.sopsr.sk/natura/index1.php?p=4&sec=21&kod=SKCHVU018, cit. 15.1.2013.

SUKHDEV P., 2008: In *The Economics of Ecosystems and Biodiversity*- DG Environment, Brussels, online, http://ec.europa.eu/environment/nature/biodiversity/economics/pdf/teeb_report.pdf, cit. 9.11.2012.

TENCEROVÁ V.,2010: Hotel vyššej kategórie Demänovská dolina-Text Of the Final

Record, online, http://www.enviroportal.sk/sk/eia/detail/hotel-vyssej-kategorie-demanovska-dolina, cit. 12.12.2012.

THOMAS C.D. et JONES T.M., 1993: Partial recovery of a skipper butterfly (*Hesperia comma*) from population refuges: lessons for conservation in a fragmented landscape-*Journal of Animal Ecology* **62**: 472–481.

TILMAN et al. ,2002 *In.* Dead Planet, Living Planet – Biodiversity and Ecosystem Restoration for Sustainable Development. A Rapid Response Assessment- United Nations Environment Programme, GRID-Arendal, online, http://www.unep.org/pdf/RRAecosystems_screen.pdf, cit. 9.11.2012.

TOMAN R., 2008:Územný plán veľkého územného celku Žilinský kraj. Zmeny a doplnky č.3.- online, www.regionzilina.sk/showdoc.do?docid=9991, cit. 12.12.2012.

TRAYNOR I., 2005:Higher and higher:Ski resorts in figth to survive global warming-The Guardian, online,

http://www.guardian.co.uk/environment/2005/mar/26/travelnews.travel, cit.15.1.2013.

TROMBULAK et al. 2004: Principles of Conservation Biology: Recommended Guidelines for Conservation Literacy.*In*:Conservation Biology p.1180-1190 Volume 18- online,

http://www.conbio.org/images/content_prof_dev/conservation_literacy_english.pdf, cit. 9.11.2012.

UNEP, 1992: Agenda 21.Conservation of Biological Diversity- online, http://www.unep.org/Documents.Multilingual/Default.Print.asp?DocumentID=52&Arti cleID=63, cit. 9.11.2012.

UNEP, 1992. Preamble of the Convention on Biological Diversity- online, http://www.unep.org/Documents.Multilingual/Default.Print.asp?DocumentID=52&Arti cleID=63, cit. 9.11.2012.

URSÍNY D. 1995. Land Use Plan of Závažná Poruba.

VERHEYE H.W.1997: From Soil Survey to Land Use Planning and National Soils Policies- Tropicultura 15(2).p74-79.

VRAŽDA D., 2012: Ochranári a lesníci spolu študovali, dnes sa sporia o prales. *In*:SME, online, http://www.sme.sk/c/6430035/ochranari-a-lesnici-spolu-studovali-dnes-sa-sporia-o-prales.html, cit.12.12.2012.

WWF LETHERLANDS.2009 Authors-Pita Verweij, Marieke Schouten, Pieter van Beukering, Jorge Triana, Kim van der Leeuw en Sebastiaan Hess. Keep the Amazon forests standing- WWF Netherlands, Zeist, online, http://www.wwf.se/source.php/1229304/Keeping%20the%20Amazon%20forests%20st anding.pdf, cit. 9.11.2012.

WWF,2008. White Elephants in the Green Mountains- online, https:// http%3A%2F%2Fassets.panda.org%2Fdownloads%2Fski_danubecarpathians_report_final_09dec08_web.pdf, cit. 12.12.2012.

7 Annexes

Annex 1

Table 7.1. The hard-soft tourism continuum in the accommodation sector.

	SOFT TOURISM	⇐=====	$= = = = = = \Rightarrow HA$	RD TOURISM
Attributes Socio-cultural affinities	Strong	Significant	Limited	Weak
Local business linkages	Strong	Significant	Limited	Weak
Ownership and labour	Local	Mainly local	Mainly external	External
Negative environmental effects	Limited	Variable but limited	Variable	Significant
Scale	Small	Small/medium	Medium/large	Large
Product	Locally-specific			Standardized
Example	Farm accommodation	Small hotel/ guesthouse	National hotel chain with regionally specific product	National/ International hotel chain

Annex 2



Návrh ÚPN zahŕňa katastrálne územie obce Demänovská Dolina a bezprostredne susediace plochy, ktoré tvoria jeden funkčný celok. Predmetné územie leží menšou časťou v ochrannom pásme Národného

⁹⁷

je nevyhnutné obetovanie jej prírodných hodnôt pre potreby riešenia otázky dopravy. Filozofia obmedzovania vstupu návštevníkov do doliny, resp.riadenie návštevnosti podľa eko únosnosti by bola žiadúca a vhodnojšia alternativa. Poukazuje na skutočnosť nejednoznačnej filozofie riešenia dopravy a parkovania v priestore Tri Studničky - Láčky - Záhradky - Jasná. Hlavným záchytným parkovacím miestom (340 osobných aut, 40 autobusov, v zmysle použitej metodiky 2450 osôb) ako aj hlavným nástupným dopravným uzlom OHDZ (spolu s patričnou vybavenosťou) spraeovateľ prezentuje lokalitu Lúčky s nadväzujúcou kyvadlovou autobusovou dopravou do Jasnej. Zároveň však v priestore lokality Záhrady navrhuje podobný 7 podlažný objekt (270 osobných áut, 10 autobusov, v zmysle použitej metodiky 1075 osôb) v relativne stiesnenom priestore súčasného parkoviska. Záchytné parkovisko a jeho pripadné prepojenie kyvadlovou dopravou v čase zimnej turistickej sezóny spracovávateľ vôbce nerieši-čo je v danom období jeden z dominantných problémov územia. Dôležitým sa nám zdá faktor navyšovania parkovacej kapacity minimálne 9365 (parkovacie domy 3525, Tri studničky OV 300, Lúčky OV 260, jaskyňa Slobody 975+ neznáma kapacita určená ako súčasť novo navrhovaných objektov, staré plochy, ktoré budú prekryté výstavbou) a jeho závislosť na schválených limitoch zadania (4500 lóžok+7000 pasantovť deň). Predmetná textová časť aj napriek plánovanej rozsiahlej výstavbe nerieši problematiku výskytu lepotrebné uvedené informácie v spolupráci so Správou NAPANT dopracovať. Upozorňujeme, že predmetné zámery umiestnené v súčasnej NPR Demänovská Dolina je možné realizačne riešiť len v prípade dokončeného procesu revízie CHÚ a naväzujúcu zonáciu. (predbežný termín dopracovania a schválenia zonácie Národného vjznu zonáciu. 2012.2007).

- Požadujeme koordináciu pri navrhovaní smerovania inžinierskych sietí s dôrazom na vhodné nasmerovanie prechodom z riešeného k.ú., tak aby ani blízko nadväzujúce lokality napr. Demänovská slatina, PR Jelšie v iných k.ú. neboli navrhovanou činnosťou nevyhnutné
- Konštatujeme nedostatočné spracovanie výdatnosti vodárenských zdrojov. Je nevyhnutné, aby spracovateľ dopracoval uvedenú problematiky tak, aby bolo možné komplexné bilančné posúdenie krytia potreby vody existujúcimi vodárenskými zdrojmi (hlavne v miestnych častiach

Annex 4

zóna G – Repiská - umiestniť objekty individuálnej chatovej rekretácie v rozsahu do 15 chát, zastavovacie podmienky, vrátane modelového typu chaty a dopravnú a technickú infraštruktúru zóna K – Lúčky - dobudovanie dopravného terminálu s občianskou vybavenosťou služieb pre dojazdový areál lyžiarskych trati (údolná stanica veľkokapacitnej SL a LD s technológiou, žné objekty pre lyžiarov, vrátane stravovacích, administratívne objekty, sklady...) a parkovací

dom - <u>zóna L – Lúčky</u> – rekonštrukcia ubytovacieho areálu "Zruby", výstavba "Centrálneho objektu pre zabezpečenie služieb" s prislúchajúcim parkovacím priestorom, služitacim aj pre ubytovací areál; - <u>zóna N – športovo rekreačný a ubytovací areál SKI centrum Záhradky</u> - umiestnenie občianskej vybavenosti pri dojazdovom areáli lyžiarských tratí a objektov a technických zariadení a objektov technická infraštruktúra, komunikačné trasy) - <u>zóna O – centrum Jasná</u> - dobudovanie hlavného centra obce s príslušnou vybavenosťou obchodu a služieb pre polyfunkčnú bytovú výstavbu; vybudovať spoločenské centrum s univerzálnou sálou; vybudovať administratívne priestory obce; objekty služieb pre dojazdový areál z Bielej Púte a Otupného; objekty služieb obchodu, rehabilitačno-relaxačnú vybavenosť pre polyfunkčnú bytovú výstavbu.

Vyšším stupňom územno-plánovacej dokumentácie vo vzťahu k riešenému územiu je ÚP VÚC Žilinského kraja v znení ZaD č. 1-3 a ÚP obce Demänovská Dolina, ktorého záväzná časť určuje pre zninského krája v znení ZaD č. 1-3 a UP obce Demänovská Dolina, ktorého záväzná časť určuje pre riešené územie spracovať územný plán zóny. Záväzná časť ÚP obce Demänovská Dolina bola vyhlásená VZN obce Demänovská Dolina č. 2/2008/VZN zo dňa 15.12.2008, s účinnosťou dňa 30.12.2008. (Podotýkame, že na dožiadanie Správy NAPANT č.j. NAPANT/36/2010 zo dňa 21.6.2010 sa Krajský stavebný úrad v Žíline nevyjadril k právoplatnosti územného plánu obce Demänovská Dolina, len deklaroval existenciu právnych sporov vo vzťahu k predmetnej ÚPD – viď č.j. 2010/01363/HR1 zo dňa 30.6.2010 Krajský stavebný úrad, odbor ÚP. Obecný úrad Demänovská Dolina deklaruje platnosť územného plánu bez uvedenia blížších podrobností, viď list č.j. 160/2010 zo dňa 28.6.2010.)



S pozdravon

Annex 6



Vyjadrenie č. NAPANT/976/2010 zo dňa 10.09.2010 Vybavuje : Ing. Mezei.

8.4.

n e s ú h l a s í m e s vymedzením hranice zastavaného územia v oblasti medzi Bodicami a PR Jelšie, ktoré zahŕňa aj plochy určené pre "rekreáciu v prírodnom prostredí", primárne sa uvažuje o golfovom ihrisku, doporučujeme nekonkretizovať uvedeným spôsobom využitie tejto plochy bez predchádzajúceho zhodnotenia územia a vplyvu navrhovanej činnosti na životné prostredie

akceptované v návrhu ÚPN O Liptovský Mikuláš textová časť str.62 a 164, pred vydaním územného rozhodnutia bude zámer posúdený podľa zákona 24/2006 Z.z. v súvislosti s vpyvom navrhovanej činnosti na životné prostredie





Annex 8

Správa vykot požadujeme z cesta, v tesnej Kapitola GI, v grafických podrobnejšom rešpektovať b Vzhľadom na 90).	la posúdenie možnosti realizácie predmetnej aktivity. Na základe zisteného neniť trasovanie navrhovanej komunikácie z lokality Sokoły (lesná približovacia tizkosti vodného toku, svahovo nepristupný terén) na paralelnú odvoznú lesnú cestu strana 41 Navrhovaná lokalita rekreácie "Čierna dolina" leži podľa zákresu astitach návrhu ÚPD v bezprostrednej blízkosti vodného toku Biely Váh. Pri návrhu nového rekreačnéňo priestoru "Čierna dolina" a jeho realizácii žiadame skoridor Bieleho Váhu, jeho brehové porasty a nokrade nachádzajúce sa v nive. úto skutočnosť žiadame uvedené zapracovať do záväzných regulativov (napr. strana	
	S pozdravom Stovenekoj ropublikajni Elena Gregorova Goráza Márodného parku riaditeľka Mezaz TATRA BANBICA DYSTRICA	
Na vedomie:	Obecný úrad Východná, č. 616. Východná, 03232 Obvodný úrad životného prostredia v Liptovskom Mikuláši	

Altankého králk korá válastal.
121 dílik navojov ploch v kanardiných úzeních jednotlivých obej řísti v makákaj korá vylakají neovistvánské uženných češkoh ponechať czervu pre vnavi prinodné a hranické dinakají na nakosa neovistvánské uženných vzenkají ponechať czervu pre vnavi dílivých obej řísti v makákají dílikaci neovistvánské uženných ploch a ponechať czervu pre vnavi dílikaci na vnavna dílikaci neovistvánské uženných ploch a ponechať czervu pre vnavi dílikaci na vnavna dílikaci neovistvánské uženných ploch ponechať czervu pre vnavi dílikaci na vnavna dílikaci neovistvánské uženných ploch ponechať czervu pre vnavi dílikaci na vnavna dílikaci neovistvánské uženných ploch ponechať czervu pre vnavi dílikaci na vnavna dílikaci neovistvánské uženných ploch ponechať czervu pre vnavi dílikaci neovistvánské uženných ploch navehovanom veľkoploknom zábere, initovom zábere krajiny, alebu neovistvánského dílikaci na živomi ponatrcké a realizáciou vhodných opatrení dosishnuť edistinencie, obmedzenie alekonnikana na živom ponatrcké a realizáciou vhodných opatrení dosishnuť edistinencie, obmedzenie alekonnikana navistva prostrucké a realizáciou vločných opatrení dosishnuť edistinencie, obmedzenie alekonnikacie navistva navehovana veľkoplokana vačeko patrení dosishnuť edistinencie, obmedzenie alekonnikacie navistva na realizáciou stupňa uvažuje len so stredliskom národného výramu. Tento návrh je ziroveň v rozpore stvrdením, že *K záberu lesného pódneho fondu v rimici navhováného vislenia nedochádza.* (víl str. 33), ako aj stvrdením, že - riešenie zachováva všeky proky zasahuje do CHVÚ 018 Nizke Tatry.

Správa NAPANT sa v poslednom období vyjadrovala k zámeru vybudovania welness areálu a využitia geotermálneho vrtu (NAPANT/904/2011). Zaradenie welness areálu do rozvojových aktivít v rámci ÚPD nezamietame, je však podmienené vyhodnotením vplyvov na životné prostredie (EIA), najmä na režim podzemných vôd v súvislosti s PR a UEV 0152 Sliněške travertíny s negatívnym výsledkom (= nemá vplyv).

Územný obvod VI, nachádzajúci sa v lokalite osady Magurka, resp. jeho funkcia je definovaná len ako "rekreácia s doplnkovou funkciou bývanie, 40%, 1+1", teda nie je konkretizovaná z hľadiska využívania. Dotknutá parcela je charakterizovaná ako nelesný biotop, konkrétne cca 50% Lk1 – Nížinné a podhorské kosné lúky, 34% Lk2 – Horské kosné lúky a 15% Lk3 – Mezofilné pasienky a spásané lúky (Daphne, 2006).