White Elephants in the Green Mountains

Ski developments in Bulgaria, Romania, Slovakia and Ukraine

WWF Danube-Carpathian Programme 2008

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Photo front cover: Rila National Park, Bulgaria © Konstantin Ivanov

Synthesis report: Andreas Beckmann with support from Michael Easter and Jennifer Matthews on the basis of desk based research and country reports for Bulgaria, Romania, Slovakia and Ukraine.

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This report and other related information and materials are available on the Internet at: **http://www.panda.org/dcpo**

Executive summary

"White elephant": *something that has cost a lot of money but has no useful purpose* (Cambridge dictionary). *A white elephant is a valuable possession which the owner cannot dispose of, but whose cost exceeds its supposed usefulness.* (Wikipedia)

There is an ongoing boom in construction of new and expansion of existing facilities for downhill skiing across many parts of Central and Southeastern Europe, especially in Bulgaria, Romania, Slovakia and Ukraine. Most if not all of these areas are being developed with significant public sector support, including billions of Euros in state and EU funds as well as considerable political backing, including even tacit support by authorities for illegal activities. And yet a number of factors, including rising energy costs, climate change and external costs including water abstraction and biodiversity loss suggest that many of these areas warrant critical appraisal of long-term costs and benefits, both in terms of profitability and public interest. In many cases, we risk having "white elephants" dotting our increasingly green mountains – expensive investments whose cost, both financial as well as social and environmental, exceed their supposed usefulness.

Few if any of the ski developments seem to seriously take into account the realities of climate change, which is now happening in our region more quickly than anticipated. Most of the areas being developed are located at less than 1,500 meters above sea level, below which snow cover is increasingly uncertain and which in the Alps now serves as a rule of thumb for the viability of ski areas. Many areas are being constructed in national parks and other protected areas, often with inadequate or no proper assessment of impacts on nature values. Indeed, there are all too many cases, especially in Bulgaria, e.g. in the Pirin and Rila National Parks, or in Vitosha Nature Park near Sofia, where ski areas have been or are being constructed illegally, in violation of national and in many cases EU legislation.

Public authorities, including national and regional governments as well as EU institutions, should take a much more critical look at the ski developments that are being developed throughout the region. The development benefit of these projects could be limited, especially given the realities of climate change; and the costs – financial, social and environmental – could be prohibitive. Developers and financiers of ski areas must also be more careful in pursuing their projects, factoring into their profit calculations the realities of changing climate as well as increasing costs e.g. for environmental goods and services. Skiers also have a moral responsibility not to support at least those ski areas with the greatest environmental impacts, especially those that have been constructed illegally (see Annex I for list of problematic developments).

Introduction

Purpose

Our purpose in undertaking this study is to take a step back and gain an overview of existing and planned ski facilities across the Danube-Carpathian region in order to gain an appreciation of the scope of these developments and possible implications, particularly for the environment but also for local communities and society at large. We have sought to understand the role of the public sector in promoting and supporting these developments, and to identify where this support may not be in the public interest. While our initial focus was on the potential negative impacts of the ski developments on the rich biological diversity of the region, climate change aspects have become all too clear, suggesting that many of the planned or existing developments have a very uncertain future even beyond their relative impact on our natural values and resources.

It is important to note that WWF is not against skiing. Skiing provides recreation and sport, and can provide an important stimulus to local economies. There are indeed many areas in our region where development of downhill skiing is appropriate and even desirable. But any investment must be prudent, with a longer-term perspective of relative costs and benefits, including environmental and social as well as economic factors.

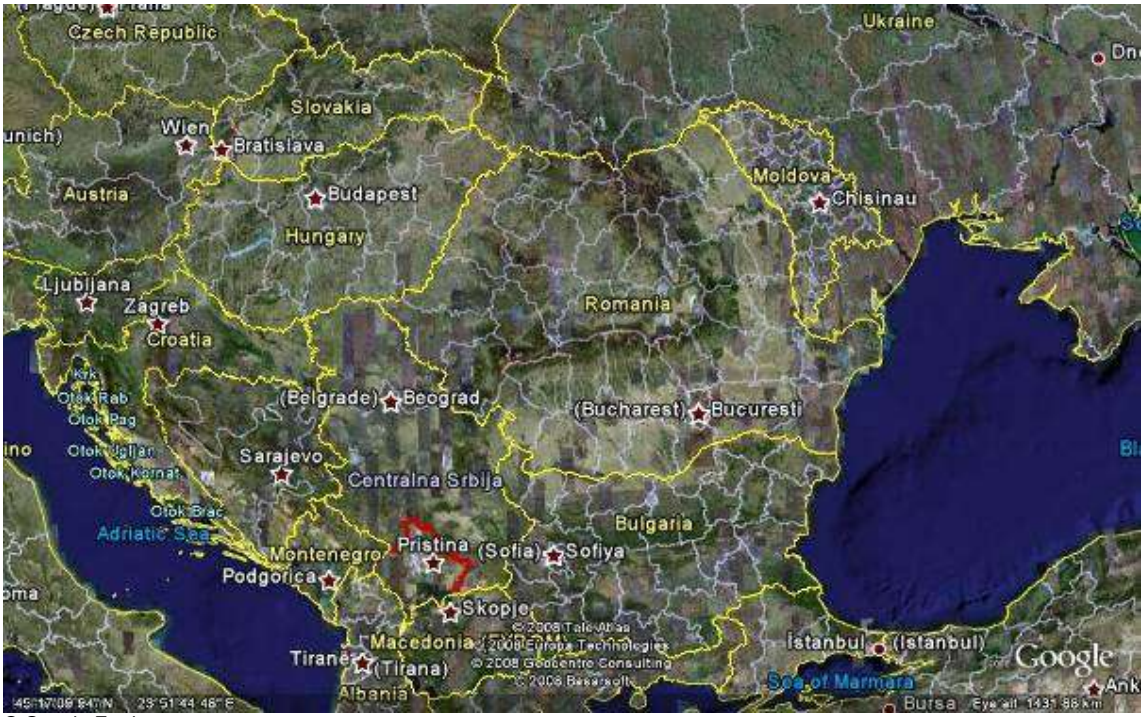
Methodology

The study has been developed, compiled and written by the WWF Danube-Carpathian Programme and focuses on selected countries in the Carpathian Mountains (Romania, Slovakia and Ukraine) as well as in Bulgaria. The countries were selected by WWF-DCP for a number of reasons, including the level of perceived threats and problems; their importance to priority areas of WWF interest particularly in the Carpathians; and on the basis of existing WWF capacity and expertise.

This synthesis study was developed on the basis of country reports for relevant countries as well as desk-based research on good and bad practice and experience from the Alps. Country reports were undertaken for Bulgaria, Romania, Slovakia and Ukraine and consisted of two parts: an overview of legislation, programmes and policies relevant to the development of ski areas and infrastructure, including e.g. tourism and spatial development plans, national and regional development programmes, etc.; and a survey, based on completion of a questionnaire, of both existing and planned ski facilities, including description of the project, investors, public sector support as well as possible/likely impacts on natural values and resources.

Information and data for the national reports was collected through a mixture of desk-based research, phone calls and meetings. The research undertaken was considerable, but not exhaustive, relying on information that could be readily accessed. In Ukraine, e.g., Environmental Impact Assessments for projects were not consulted – though formally available for public inspection, in practice these assessments usually require a visit to the offices of relevant authorities, which was not possible given

the time and resources that we had available for this project. In many cases, and especially in Ukraine, information on project investors and promoters was not available.



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Europe's treasure chest

The Danube-Carpathian region is Europe's treasure chest, containing many of our continent's greatest natural treasures. The Carpathian Mountains, which arch across the region from the Czech Republic in the west across Slovakia, parts of Poland, Hungary and Ukraine, across the greater part of Romania and into Serbia, are Europe's last great wilderness area – a bastion for large carnivores, with some two-thirds of the continent's populations of brown bears, wolves and lynx, and home to the greatest remaining reserves of old growth forests outside of Russia. The Carpathians have been recognised by WWF as one of the 200 most outstanding natural areas on Earth.

Similarly, the mountainous areas of Bulgaria, including the Balkan Mountains and the Rila-Rodope Mountain Range, contain outstanding natural features that are of global importance, including the Rila and Pirin National Parks, which have been recognised, respectively, as a certified PAN Parks wilderness area and UNESCO World Heritage Park.

All of these areas are formally protected by a mixture of often overlapping international, EU and national legislation, including the EU's Natura 2000 network of specially protected sites as well as national designations e.g. as national and nature parks.

White elephants in the green mountains

Construction boom

There is an ongoing boom in construction of new and expansion of existing facilities for downhill skiing across many parts of the Carpathian Mountains especially in Romania, Slovakia and Ukraine as well as the Balkan Mountains and the Rila-Rodope Mountain Range in Bulgaria. In Romania, the government-approved programme for development of ski tourism, *Ski in Romania*, foresees construction or expansion of over 30 ski resorts across the Carpathians, including projects in 8 national parks. Project promoters are beginning to develop projects within this legal framework, in many cases with involvement of local authorities (e.g. in Predeal, Azuga, Brasov, and Alba counties) and with support of land-use and other plans for the regions.

At the same time, there has been very considerable investment in a handful of new ski areas in Ukraine. Most significant among them is Bukovel, a massive ski area that is being stamped out of the ground in the Carpathians south of Ivano-Frankivsk and near the Carpathian Biosphere Reserve. The ski area is expected to be one of the very largest in Europe, and indeed the world, with 100,000 beds, and 66 lifts. Total investment connected with the development is expected to reach a whopping €3 billion.[1]

In Slovakia, over 30 ski developments are planned or currently underway, ranging from smaller projects of little more than €1 million to larger developments such as a €100 million development at Tatranska Lomnica or a €400 million development at Spisska Nova Ves in the Slovak Paradise National Park. Many of the projects focus on areas of the High and Low Tatras that are already significantly affected by ski facilities.

The projects are being promoted by a range of private companies and investment groups, including local communities. Many of the projects in Bulgaria in particular are promoted by shady, off-shore companies with unclear ownership. The massive development at Bukovel in Ukraine is being promoted by PrivatBank, a holding company controlled by a Ukrainian oligarch Igor Kolomoisky and partners (see case study, page 22).

Public sector support

The projects enjoy very considerable public sector support, both in terms of legislation and approvals as well as direct support for investment.

Development of ski tourism is given priority in many planning documents for regional and local development. Many of the projects in EU countries, e.g. Slovakia and Romania, expect to receive very significant support from the EU, especially through co-financing from regional development funds. The

[1] Georg Tappeiner, „Alles ist Moeglich: Wie Suedtiroler Unternehmer in den Karpaten das groesste Skigebiet Europas bauen," („Everything is possible: how South Tyrolian business people are building Europe's largest ski area in the Carpathians"), ff Suedtiroler Wochenmagazin, No. 1/January 3, 2008.

€772 million in EU Structural Funds that Slovakia will receive in the period 2007-13 for supporting "Competitiveness and Economic Growth" will include substantial investment in constructing, modernizing and extending ski centres. The ski area of Biele Kamene in eastern Slovakia, for example, which is being developed in the Vihorlat Protected Area[2], foresees the €20 million investment costs coming largely from public sources, including the state budget (20%) and especially EU Structural Funds (75%).

The Ukrainian government is promoting the Bukovel ski area in particular, seeing the area as the cornerstone for a possible Ukrainian bid to stage the Winter Olympics in 2018.[3] Development of ski tourism is supported by provincial programmes on tourism development for 2002-10 for relevant provinces of Zakarpatska, Lvivska, Ivano-Frankivsk and Chernivetska.

Ski in Romania -- *Government promotes development of ski areas in 8 national parks*

The "Ski in Romania" programme adopted by the Romanian government[4] foresees development of ski tourism throughout mountain areas of the country, including in existing national protected areas and proposed Natura 2000 sites. Of the 102 areas identified in the programme for development or improvement of ski facilities, about half are in or near Sites of Community Importance (SCI's), while 21.6% are in Special Protection Areas (SPA's), which are both part of the EU's Natura 2000 network of specially protected sites. 20% of the areas are in or near existing nature parks.

The legislation has been somewhat improved by an amendment stipulating that ski areas should only be developed in areas designated by management plans and on the basis of studies on integrated tourism development. A practical problem however is that the management plans of most national and nature parks, although submitted to the Ministry of Environment, are not yet approved and there are relatively low chances for approval in the near future. Furthermore, for areas where significant investments are planned there are still possibilities to impose changes in the internal zoning to facilitate the investments.

One of the projects being developed within the framework of this legislation has apparently been initiated by Italian politician and businessman Silvio Berlusconi through a group of companies and involves development of a ski resort in the core zone of Apuseni Nature Park in western Romania. So far, the investment has been held up by the Scientific Council of the park, but intense pressure is being applied to restart and review the approval process for the project.

In the public interest?

[2] In addition to national protection, the area includes Natura 2000 sites: Special Area of Conservation Morske oko (SKUEV0209) and Special Protected Area Vihorlat. The Vihorlat Protected Area and Natura 2000 sites are also threatened by planned modernization and extension of the STIV Certovica ski facilities.

[3] "Ukraine May Bid for 2018 Winter Olympic Games", GamesBids.com, November 13, 2006: http://www.gam esbids.com/cgi-bin/news/viewnews.cgi?category=1&id=1163435655, accessed June 10, 2008. See also: "2018 Winter Games – Sofia To Bid, Bukovel Prepares", GamesBids.com, March 19, 2008: http://www.gamesbids.com/cgi-bin/news/viewnews.cgi?category=1&id=1205939929, accessed June 10, 2008.

The ski facilities are being promoted by private sector interests with substantial public sector support, from local communities to national governments and the EU, in the expectation of significant benefits for local and regional development. But for many of the projects, the long-term profitability and public interest is questionable.

Climate change

It is striking how little climate change appears to be entering calculations for many of the new ski areas. Already, rising temperatures and decreased precipitation and snow cover is causing problems for many facilities, with some poor recent seasons. Experts forecast the trend to continue, with as much as a 2 to 5.2 degree Celsius increase in average temperatures across the region within the next decades.[5] Such an increase will likely drive a nail into the coffins of many of the ski areas that are currently under development.

In fact, Kostka and Holko conclude that alpine ski regions in Slovakia at 1,150-1,500 meters above sea level may be uneconomic by 2030; even areas at 1,500-1,850 meters above sea level (i.e. the upper limit for all but the highest areas in the Carpathians and Bulgarian mountains) could be unviable by 2075.[6] Indeed, a glance at the Alps should make project developers and public sector supporters think twice before pouring investments into ski areas in the Carpathians. According to the Organisation for Economic Cooperation and Development (OECD), as many as two-thirds of Alpine ski areas could go out of business according to current projections for climate change, while Alpine areas lower than 1,500 m are already facing a very uncertain future (see text box, "Experience from the Alps").

It is important to note that virtually all of the ski areas that are being planned or constructed in the Carpathians are located at less than 1,500 meter above sea level. A striking example in Bulgaria is the ski resort in Tryavna in Stara Planina (the Balkan mountain range) whose lowest point is at 860 meters a.s.l. and inside Balgarka Nature Park. In Slovakia, plans to build a new ski center at Biele Kamene will not only come at a heavy price, destroying part of the pristine Vihorlat protected area and Natura 2000 site, but at questionable benefit, as the prospects for snow cover are uncertain at 500-1,000 meters above sea level. Of course, snow cover is dependent on a number of variables, including not only altitude, but also e.g. the direction that slopes are facing as well as other local factors. Local conditions can vary and do need to be verified independently. Nevertheless, relative altitudes do provide some simple rules of thumb in terms of snow cover and length of season, and should at least suggest a more careful look at some projects.

Lessons from the Alps *Ski areas below 1,500 m a.s.l. have no future*

[4] Law No. 526/2003, with amendments from 2006 and 2007 for approving the National Mountain Tourism Development Programme "Ski in Romania" (418/2006).

[5] E.g.: Fourth National Communication of the Slovak Republic on Climate Change (FNCCC) 2005. Ministry of Environment of the Slovak Republic and Slovak Hydrometeorological Institute, Bratislava, 138 pp.

[6] Kostka, Z., 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.

Alpine ski areas are feeling the pressure as temperatures rise. Their experience should be sobering for promoters of ski tourism in the much lower Carpathian Mountains, where most ski areas lie below 1,500 meters above sea level – below which Alpine areas are considered marginal.

Snow fall in the Alps has decreased by an average of 20% since the 1990s and 75% of Alpine glaciers – some of which are used for ski tourism – are expected to disappear within the next 45 years. A 2006 study published by the Organization for Economic Cooperation and Development (OECD)[7] found that 609 or 91% of the 666 Alpine ski slopes that were studied can be considered naturally snow reliable, with the remainder already operating under marginal conditions.[8] However, the number of naturally snow-reliable areas would drop to 500 under 1 ℃, and to 404 under 2 ℃. A 4 ℃ rise in average temperature, two-thirds of Alpine facilities would be closed, with ski areas in Germany and Austria especially hard hit.

Artificial snow-making remains the dominant adaptation strategy. Most facilities are investing in artificial snow creating cannons, with artificial snow currently used on 30% of Alpine slopes, and half of those in Austria.[9] Other measures include grooming of ski slopes, moving ski areas to higher altitudes and glaciers, protecting against glacier melt with white plastic sheets, diversification of tourism revenues, and the use of insurance and weather derivatives.

For the higher-lying slopes, snow-making has proven cost-effective, but such estimates are based only on the direct financial costs to ski operations and do not include the potential externalities of such practices on water consumption, energy demand, landscape, or ecology, and also do not factor in increasing energy costs. Furthermore, snow-making costs will increase non-linearly as temperatures increase – and if ambient temperatures increase beyond a certain threshold snow-making will simply not be viable. Other measures are effective to an extent – but cannot protect against systemic long-term trends towards warmer winters.

As a result, Swiss banks are already reluctant to lend money to ski resorts operating at an altitude below 1,500 meters[10] and the Swiss and German governments have restricted construction of new ski resorts.[11]

Artificial snow and water

Of course, ski resorts being developed across the Carpathians and Bulgarian mountains ranges are already including adaptation measures to climate change in the form of snow cannon. But ironically, through their huge consumption of energy snow cannon only contribute to accelerating the rise in

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[7] Shardul Agrawala, ed. Climate Change in the European Alps: Adapting Winter Tourism and Natural Hazards Management (OECD, 2006)

[8] "OECD warns on Alpine ski future", BBC News, December 13, 2006 – accessed June 13, 2008: http://news.bbc.co.uk/2/hi/business/6176271.stm

[9] Holger Dambeck, "A Slippery Slope: Artificial Snow Harming Alpine Environment, Researchers Warn", Spiegel Online International, April 18, 2008 – accessed June 13, 2008: http://www.spiegel.de/international/europe/0,1518,548104,00.html

[10] http://news.bbc.co.uk/2/hi/business/6176271.stm

temperatures. The estimated 3,100 snow cannons in Europe consume per year and hectare roughly 1 million liters of water and 260,000 kWh of electricity – i.e. roughly as much energy per year as a city of 150,000 inhabitants and as much water as a city the size of Hamburg.[12]

Such significant water abstraction inevitably has impacts on local or even regional ecosystems, including benefits and services they provide to humans. A French study from the Alps indicates that approximately 30% of the water transformed into artificial snow is permanently lost to the area. The evaporated water is transported into the atmosphere and, depending on atmospheric conditions, may be carried into the next basin or country, potentially contributing to water shortages in the area.[13]

Furthermore, snow-making costs will increase non-linearly as temperatures increase – and if ambient temperatures increase beyond a certain threshold, snow-making will simply not be viable. Other measures, such as grooming of pistes, are effective to an extent – but cannot protect against systemic long-term trends towards warmer winters.

Adapting to or causing climate change?

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Biodiversity and nature values

Construction of ski facilities of course can have very significant impacts on habitats and species, not only due to removal of forest cover and other vegetation to make way for ski pistes, access roads and infrastructure, but also due to fragmentation of habitats and wildlife avoidance. Secondary effects such as the abstraction of water for artificial snow production and deterioration of environmental conditions due to heavy tourist flow concentration can also have heavy impacts for biodiversity and nature values. Thus, the location and design of ski areas and infrastructure is critically important in order to avoid major loss of valuable habitats and species.

Unfortunately, many of the existing or planned ski developments are in areas of high nature value, including within existing protected areas and/or areas included in the European Union's Natura 2000 network of specially protected sites. Many of these areas are of outstanding natural value, not only at national, but also EU and even global importance (see boxed text, page 5). Some 40% of the 45 areas with existing ski facilities that have been identified in the Romanian country study are inside or

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[11] Ian Traynor, „Higher and higher: ski resorts in fight to survive global warming – Critics fear loss of last wildernesses as industry seeks fresh pistes", The Guardian, March 26, 2005 – accessed June 13, 2008: http://www.guardian.co.uk/environment/2005/mar/26/travelnews.travel

[12] "Schneekanone," in Wikipedia (German version) – accessed June 16, 2008: http://de.wikipedia.org/wiki/Schneekanone

[13] See e.g.: Keller, T (2004), Impact of artificial snow and ski-slope grooming on snowpack properties and soil thermal regime in a sub-alpine ski area, Annals of Glaciology, No. 38, 2004, pp. 314-318

next to proposed EU Natura 2000 Sites of Community Interest (SCI's), and 17.8% are located in special protected areas (SPA's).

Indeed, the *Ski in Romania* programme foresees construction of ski areas in a number of areas of high nature value, including eight national parks.[14] Under the programme, ski facilities would be built e.g. Rodna and Retezat National Parks. The parks are not only flagship parks for Romania and indeed Europe as a whole, but also contain key Natura 2000 areas.

In Slovakia, a number of ski developments are threatening exceptional nature values, including ones of European importance. Development and extension of ski areas at Biele Kamene and Certovica, for example, threaten the nature values in the Low Tatras National Park, the pristine Vihorlat Protected Area and a number of designated Natura 2000 sites.[15]

In theory, potential conflicts between nature conservation and development – including for ski tourism – should be mediated by procedures including Environmental Impact Assessments and Article 6 of the Habitats Directive, which provide a system for evaluating potential impacts on exceptional nature values and identifying solutions and measures to mitigate negative impacts. In practice, however, these safeguards are of limited effect and in the face of intense pressure from economic and political leaders, nature conservation is often given short shrift.

All too often, existing legislation is simply ignored by project developers. In the case of Rila National Park and more recently in Vitosha Nature Park in Bulgaria, a procedure to develop spatial plans for ski resorts and the parallel impact assessment has been given a start by the authorities despite the fact that new ski resort development inside the two protected areas is not allowed by law. What is more, elements of these plans are being implemented without any sanctions from the state. Examples from Rila include the road from Panichishte to Pionerska Hut and the lift from Pionerska Hut to Rila Lakes Hut, which both have been built without Environmental Impact Assessments and are encroaching on the borders of Rila National Park without any concession agreements with the state for use of exclusive public property. Ski runs disguised as fire prevention clearings are being cut through the Rila Buffer Natura 2000 site, on the immediate border of Rila National Park.[16]

In Vitosha Nature Park on the edge of Sofia, the developer plans to expand the existing ski facilities into a large new resort and has started excavating a new ski piste without any official permission. Here too, the relevant authorities have taken no perceptible action to date to address this clearly illegal activity. Furthermore, the developer has obtained permits from three authorities to develop the ski zone's detailed spatial plan, regardless of the fact that the Nature Park's Management Plan explicitly prohibits the construction of new facilities on the mountain.[17]

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[14] *Ski in Romania* (418/2006)

[15] Potentially affected Natura 2000 sites include, among others: Special Area of Conservation Dumbierske Nizke Tatry (SKUEV0304), Special Protected Area Nizke Tatry.

[16] Further information on this case is available at: http://forthenature.org/cases.

[17] Further information on this case is available at: http://forthenature.org/cases.

As one commentator has noted: “It is as if a serial killer were moving around in broad daylight, selecting and killing his victims, and with the police watching or, at best, simply looking away.”[18] Unfortunately, in some cases the “murders” are being committed with the open approval and support of relevant officials. On September 17, 2008, Bulgarian Prime Minister Sergey Stanishev participated in the opening of a ski lift in the Bodrost/Kartala Ski Resort in Rila, despite being informed that the lift was constructed without a decision on the Environmental Impact Assessment and was therefore it was illegal.[19]

In Slovakia, the aftermath of a windstorm has been effectively used to weaken protection of the High Tatras National Park, the country’s key icon and a symbol of Slovak national identity. An international delegation sent by the IUCN World Conservation Union on the invitation of the Slovak Minister of Environment recommended that the core areas of the park be left untouched. The recommendations have not been followed; indeed, development of tourism infrastructure in the area has moved forward, including core areas of the national park.. As a result, in September 2008, IUCN sent a stern warning to the Slovak Minister of Environment that failure to take action on the case could lead to the downgrading of the category of the Tatras National Park from “national park”, e.g. to “protected landscape area”. Such a step would be unprecedented in the region, especially for an area of such iconic importance.

The developments in the High Tatras have reflected more general developments in Slovakia over the past two years, where concerted efforts by the current government have significantly weakened the system for nature conservation and environment in the country. Since 2007, reorganisation of the protected area administrations, including national parks, has led to the firing or resignation of virtually all park directors and most of the qualified professional staff in the Slovak State Nature Conservancy, including protected area administration. As a result, the official system for nature conservation in the country has been decimated. This, together with a softening of legislative and administrative provisions for nature conservation as well as the marginalization of NGOs and other independent environmental advocates in the country has seriously undermined nature protection in Slovakia.

[18] Vesselina Kavrakova, WWF Bulgaria Country Manager, during press trip to Vitosha construction site, October 9, 2008.

[19] Higher powers seemed to express their disapproval as the chair lift malfunctioned, leaving the Prime Minister dangling in the air for 45 minutes; as it turned out, the facility not only lacked any assessment or environmental permit, but also lacked a permit for technical operation and has since been temporarily closed.

Conclusions and recommendations

In short, it is difficult to avoid the impression that millions and billions of Euro are being invested in construction of “white elephants” across the mountains of central and southeastern Europe – large and expensive ski areas that promise to be economically less and less viable and have increasing environmental and social impacts.

Far from a prudent investment in rural areas with an obvious need for local development, many of these projects appear to be the opposite – not only wasting precious resources that could be used more effectively, but actually accelerating unsustainable development trends. In the face of increasing concerns over energy security, efforts to limit Green House Gas emissions and increasing water scarcity – not to mention biodiversity loss and fraying ecosystems – many of the investments seem to be going full speed in the wrong direction.

From a private sector and especially a public sector perspective, many of these projects deserve a second look and prudent appraisal of long-term costs and benefits. At present, it appears that at a time of growing financial and economic difficulties billions of Euros of private and public investment is being sunk into building what soon could be white elephants in the green mountains.

Recommendations for the European Union institutions:

- EU support must not be given for any problematic developments, including those that clearly contravene EU and national legislation as well as projects that are likely to be unviable over the medium-term, e.g. as the result of climate change. While weather and snow conditions can vary between localities, it is highly unlikely that ski area at less than 1,000 meters will enjoy sufficient snow over the medium-term.
- Pressure relevant authorities to fully apply EU legislation in their countries, including especially Strategic and Environmental Impacts Assessments as well as the Habitats and Birds Directives, for projects at the planning stage
- Initiate infringement procedures for projects which have already violated EU legislation, including those mentioned in Annex I.

Recommendations for governments and authorities:

- Ski developments must not be permitted in protected areas, especially in national parks and core areas of any other protected area, in High Conservation Value Forests and High Nature Value Farmlands. Careful consideration should be given to valuable natural and traditional landscapes. Developments in Natura 2000 sites must respect provisions of Article 6 of the Habitats Directive. Specific regulations and/or existing legislation should reflect these provisions.
- Environmental and social externalities must be considered and regulated. Snow-making has implications on water and energy consumption, the grooming of ski slopes can reduce slope stability, while moving ski operations to higher altitudes can threaten fragile environments.

Specific regulations should address snow-making, use of snow additives, grooming of ski slopes, and moving ski activities to higher altitudes.

- Environmental Impact Assessments should have a clear and well-developed chapter on biodiversity and related issues for any ski development (to what extent it contributes to habitat fragmentation, what could be the compensation measures) not only for species and habitats from the EU Directives but also for those that are of special conservation interest at the national level.
- Where ski developments do go forward, they should seek to have as little negative impact on natural resources and ecosystem services as possible, aiming for a neutral ecological footprint. Where a footprint cannot be minimized, e.g. through slope placement and design, use of renewable sources of energy and water, minimization and recycling of waste, etc., this should be compensated, e.g. by financial contributions for projects to offset CO_2 emissions. The Ski Area Environmental Scorecard developed by the Ski Area Citizen's Coalition – an organization of environmentally-conscious skiers in the USA and Canada – provides some good criteria and ideas for "greening" ski areas. See: http://www.skiareacitizens.com/
- Where ski developments do go forward, strict supervision needs to be exercised on their compliance with recommendations from the Environmental Impact Assessment Decisions, with sanctions applied for violations.
- Environmental authorities should discourage developer's intention from the very early stage of the project if it cannot be implemented legally and procedures on Environmental Impact Assessment and Appropriate Assessment should not go forward for projects not compatible with a protected area regime. Examples are Panichishte Resort in Rila National Park and the Aleko Ski Zone in Vitosha Nature Park, both Natura 2000 zones. Permits for the spatial planning were issued by the authorities whereas it was apparent that both projects can not be implemented without violation of the national and European nature protection and other legislation.
- Discourage intentions to change park management plans or other protected area management instruments because of investment plans from the very early stage.
- Encourage integrated tourism development planning in regions that have a complex of natural values to build on, with a careful analysis of long-term benefits from building the strategy on the existing natural values, such as those preserved in protected areas and Natura 2000 sites.
- Create and promote incentives for sustainable forms of tourism based on local providers and diversification of services other than just alpine skiing.

Recommendations for developers and financiers:

- Observe basic environmental legislation and safeguards. This should go without saying, but unfortunately all too many ski developments in the region do not even meet basic legal requirements, and in too many cases, national and other relevant authorities have been either unable or unwilling to impose legal obligations.

- Develop smart, develop for the future: conditions today may well not be the same tomorrow. This is most clearly the case with regard to climate change. Developments at less than 1,000 meters above sea level almost certainly do not have a long-term perspective as the altitude for guaranteed snow conditions steadily move higher. The result could be lost investment.
- What is bad for the environment will, at least over the medium- to long-term, be bad for your bottom line. And vice versa – what is sustainable for the environment will make a long-term contribution to your bottom line. Limit the environmental impact of your development by following best practice and innovative technologies, including renewable energy, water and waste management.
- You can expand your business by investing in diversification of services for winter recreation such as cross country skiing on existing forest roads, sledging on existing slopes, snowshoeing and alpine ski touring, which do not depend on construction of further ski lifts. Areas with uncertain snow cover can also follow the lead of many Alpine communities that are located at lower altitudes and, given their increasingly uncertain future, seeking to diversify their offering away from snow-related activities and focusing e.g. on hiking and cycling, ecotourism, spa and other tourist offerings.
- Invest in quality – not only in terms of improving existing technology, but also services. Ski areas across Slovakia, Ukraine, Romania and Bulgaria have difficulty competing for example with Alpine areas in Austria, Switzerland, France and Italy not only due to poorer conditions (lower mountains) and technology, but also and perhaps especially the generally poorer service available. Good service with a smile can leave a lasting impression and requires no investment whatsoever.

Recommendations for skiers and potential property buyers:

- Avoid ski areas that do not comply with basic criteria, including all ski facilities built in protected areas and those that do not comply with basic environmental safeguards and legislation. See Annex I for a list of problematic ski areas in Bulgaria, Romania and Slovakia.
- If you are considering purchasing property in a winter resort, check carefully whether it has been built legally, with respect for national and EU legislation. If it has not, you may eventually lose your investment if and when the wheels of justice within the country and/or at EU level finally come to bear, possibly leading to the shut-down of all or part of the facility.

Further information on greener skiing:

- Keep Winter Cool: skiing and climate change initiative: http://www.keepwintercool.org/
- Ski Green: http://www.SkiGreen.org – contributions from ski passes and resorts toward projects focused on renewable energy and watershed protection
- Sustainable Slopes – the Environmental Charter for Ski Areas (US National Ski Areas Association): http://www.nsaa.org/nsaa/environment/sustainable_slopes/Charter.pdf
- Ski Area Citizen's Coalition – the organization of environmentally-conscious skiers has an annual Ski Area Environmental Scorecard that rates the environmental performance of ski areas in the US and Canada and publishes the top ten and worst ten: http://www.skiareacitizens.com/

Case study: **Bansko Ski Zone, Pirin National Park, Bulgaria**

The first of a series of illegal developments in Bulgaria

The Bansko Ski Zone was among the first of what has now become a series of illegal ski developments in Bulgarian protected areas. The project, which extends into Pirin National Park, received approval from authorities in 2000 and was built in subsequent years. Half of the ski runs in Bansko have no environmental permits, while those ski runs which do have permits have violated each requirement of the Environmental Impact Assessment decision. These violations include for example: the permitted width of ski runs is 30 m, while in reality they are 60 to 100 m wide; only manual work was permitted on terrain, without using heavy machinery, while in reality bulldozers were used; no increase was permitted in the number of beds in the town of Bansko, while in reality the number of hotel beds has increased from 3,000 in 2002 to 15,000 in 2007. Indeed, construction permits for hotels and apartments in the valley have already been issued for a total of 200,000 beds.

The development has caused significant environmental problems, including landslides in Pirin National Park, but has also had social and economic implications as well. Bansko was once a popular summer resort, but visitor numbers have dropped in recent years due to higher prices and over-development of the once picturesque town.

Perhaps the worst effect however is the message this case has given to Bulgarian society that laws can bypassed by anyone with sufficient funds and influence. This message has a demoralising effect on investors and the public alike. Indeed, the European Commission has repeatedly called on the Bulgarian government to take effective measures to tackle corruption.

The example of Bansko has inspired numerous other ski resort projects in Bulgaria. Some of them have already started their implementation and demonstrated the same disregard for law. The epidemic nature of the problem is seen again in Pirin National Park where its advisory body, the Consultative Council, submitted to the Ministry of the Environment a proposal to alter the park management plan in order to permit the construction of two huge new ski zones inside the park.

Further information: http://www.forthenature.org

Case study: **Vitosha Nature Park, Bulgaria**

The latest in a series of illegal developments in Bulgaria

Located at the edge of the Bulgarian capital Sofia, Vitosha is the oldest and one of the most popular nature parks on the Balkan Peninsula. Today, it is also included in the EU's Natura 2000 network of protected areas as it meets criteria of both nature directives - for birds as well as for species and habitats. The park has a management plan in force until 2014 which does not permit construction of new ski runs and facilities but only refurbishment of existing ski facilities.

Between October and November 2008 in the area of the Aleko tourist zone, heavy construction machines worked every day to destroy rock rivers and vegetation over an area of 18 dka. The actions were organized by Vitosha Ski, the company which owns the ski facilities but not the land. The purpose was to build a ski road and 'clean up' an existing ski run. The excavation works are in violation of four Bulgarian laws – the Protected Areas Act, the Spatial Planning Act, the Forests Act and the Biodiversity Act, as well as the Management Plan for Vitosha Nature Park. EU legislation has also been violated, as the excavation works have not been subject to appropriate assessment as required by Article 6 of the EU Habitats Directive.

The illegal works continued with no action taken by authorities to stop them, and despite formal protests by NGOs and coverage of the case by national and local media.

Meanwhile, authorities have given Vitosha Ski a green light from authorities to develop a spatial plan for the Aleko Tourist Zone, which envisages new ski runs and facilities in Vitosha, and to start procedures for Strategic Environmental Assessment (SEA) and appropriate assessment (AA) for the works. This happened despite the fact that a spatial plan cannot be allowed in the first place as it contradicts the park's management plan. The spatial plan foresees a tripling of the ski runs and paths and related infrastructure; a doubling of the ski lifts, and construction of a 70.000 m^3 lake for producing artificial snow (equal to 35 Olympic-size swimming pools). The ski zone reaches up to 1.800 m a.s.l. Given the climatic specifics of the mountain and global warming, the longer-term economic viability of this ski zone is questionable.

Vitosha Ski Company also organized a “public consultation” for the Strategic Environmental Assessment and Appropriate Assessment reports. The consultation process itself was made extremely difficult for interested people because the reports were provided for public consultation at a ski lift station located approximately 2 hours from the city. Only an electronic copy was available, with no signatures or other proof that these were the final versions of the reports. There were also many other procedural violations in the consultation process.

The reports themselves have a number of serious inadequacies. For example, individual species are not included; fauna are not covered in terms of impacts in the SEA report; and no alternatives are considered.

Worth noting is the fact that the company Vitosha Ski is related to a company which holds the concession for the Bansko Ski Zone in Pirin National Park, where the ski zone has already been constructed with a huge number of legal violations. According to media reports, behind both companies is First Investment Bank, one of the largest banks in Bulgaria. A prominent shareholder of the bank is the chairperson of the Bulgarian Ski Federation.

In contrast to many other nature conservation cases in Bulgaria, the Vitosha case has had difficulty breaking into the media. The First Investment Bank, which is behind the project, is one of the largest media advertisers in the country. Journalists have stated, unofficially, that their coverage of the case has been squelched by editorial pressure.

This has not stopped growing public attention and concern. By early December, more than 7,000 people have signed a petition calling on authorities to stop processing of the new ski zone plan. Position papers have been submitted by a number of organizations, including the ‘For the Nature Coalition’ comprising 30 nature conservation organisations, all of them insisting that authorities reject the SEA and AA reports.

Further information: http://www.forthenature.org

Photos of construction work at Vitosha Nature Park: © www.forthenature.org

Case study: **Rila National Park, Bulgaria**

Rila National Park is one of Bulgaria's most iconic nature areas, famous for the Seven Rila Lakes among other features. The area is one of three national parks in Bulgaria (IUCN category II) and part of the EU's Natura 2000 network of specially protected sites. It is also one of only nine European protected areas that have been certified by PAN Parks for management quality in protected areas.

This has not stopped developers from building a ski lift and road near the Seven Rila Lakes. Construction began in the summer of 2007 in breach of a number of legal requirements. To begin with, the lift has been constructed without a concession agreement, which is necessary for territories that are exclusive public property as in the case of the national park. Also missing is an up-to-date Environmental Impact Assessment – the investor quotes a 9-year old assessment, which expired four years ago.

Similarly, the road has been built without an Environmental Impact Assessment, either new or expired. At some points, the road crosses the border of Rila National Park and the agreement has been to reconstruct the road within its old range. However, at some points the road is now double its original size and enters the park territory.

Both the ski lift and the road projects still need to be assessed according to Article 6 of the EU Habitats Directive regarding their impact on the Natura 2000 sites. In spite of the above problems, construction is moving forward on both projects.

Apart from a fine imposed on the developer and local mayor – which was later successfully appealed in court -- the relevant authorities have done nothing to stop the developments.

The area around Rila National Park, which is a proposed Site of Community Importance (Rila Buffer, BG0001188), is the only habitat site from the country's list of Natura 2000 sites that the Bulgarian government has discarded.

Meanwhile, the Bulgarian Minister of Environment said in Parliament that his Ministry would not stop the construction due to high public interest and support for the lift and road.

The Minister's impression is contradicted by the results of a national representative opinion poll conducted by Alpha Research in August-September 2008 which revealed that 71.4% of all Bulgarians are concerned over the construction of new infrastructure, hotels, ski pistes and lifts in the protected areas of Bulgaria.

In fact, grassroots opposition to the project is growing. Thousands of people have joined street protests in Sofia. A grassroots group, *Citizens for Rila*, collected more than 150,000 signatures in support of Rila (a remarkable feat in a former Communist country with a poor tradition of public engagement) and submitted them to the European Parliament. Bulgarian NGOs have submitted an official complaint to the European Commission for contravening EU nature directives.

Further information: http://www.forthenature.org

Photos of Rila Seven Lakes, construction work and street protests in Sofia: © www.forthenature.org

Case study: **Tatras National Park, Slovakia**

Thanks to ski developments, Slovakia's flagship park could soon be lost

In the last few years, the Slovak authorities have essentially opened the Tatras National Park to development – a marked change as the area has been relatively strictly protected for the past thirty years, with no new developments inside the park. As a result, the country's flagship protected area is facing intense pressure. Five ski areas are being developed around the park, including development of ski runs and expansion of tourist facilities, with little if any state control or proper assessments. As a result, the area could lose its international recognition as a national park by IUCN, the World Conservation Union. The European Commission has also begun investigating impacts of the developments on Natura 2000 areas.

In 2008, a new ski run was built into the protected area at Strbske Pleso (1,850 m long), and ski runs were broadened in the park at Tatranska Lomnica. According to the Slovak daily SME, in addition to ongoing construction of ski runs stretching into the protected area as well as renovation of hotels, 7,000 apartments are planned to be constructed in the area of Tatranska Lomnice. The influx of further tourists would add to existing pressures on the area.

Despite international recommendations and pressure, Slovak authorities have yet to adopt clear zonation and management plans for communities in the area. Zonation and planning could guide development and management of the area, ensuring opportunities for development while maintaining the natural values that are the area's chief attraction.

The lack of any planning or guidelines, together with the hands-off attitude of relevant authorities, has essentially given developers free rein to develop the area.

The developments have provoked IUCN, the World Conservation Union, to send a letter to the Slovak Minister of Environment warning him of the possible downgrading of international recognition of Tatras National Park to merely a protected landscape area. According to IUCN, the Slovak authorities have failed to take action and limit the development pressures on the park.

The developments have also attracted the attention of the European Commission, which is reportedly studying possible impacts on areas protected within the EU's Natura 2000 network of specially protected sites.

Slovak authorities have expressed little concern over the developments. Losing international recognition as a national park "would not be good for public relations and would be a shame, but life in Tatras National Park would go on," Peter Visvader, spokesperson for the Slovak Ministry of Environment was reported by SME as saying.

Ski area being developed at Tatranska Lomnice into the High Tatras National Park in Slovakia

Case study: **Bukovel, Ukraine**

One of the world's largest ski areas is being stamped out of the ground in one of Ukraine's poorest areas.

One of the 20 largest ski areas in the world has been stamped out of the ground near the village of Palianytsia in the Ukrainian Carpathians, not far from the city of Ivano-Frankivsk. Development of the area is continuing, with total investment in the area reportedly planned eventually to reach €3 billion.

A total of 54 lifts, 400 km of ski runs, and 100,000 beds, an airport and 15 million annual visitors are planned overall. Of this, 35 lifts, 278 km of runs, and 30,000 beds are expected to be completed in time for the 2008-09 season. The development counts on significant artificial snow production, including 500 snow production sites, 300 snow lances, 40 mobile propeller snow cannon and a 100,000 m^3 artificial lake to provide water for snow production.[20]

The project is being promoted by PrivatBank, a holding company controlled by Ukrainian oligarch Igor Kolomoisky and partners Henadiy Boholubov, Oleksiy Martynov. The holding company has interests in a wide range of industries, including steel, oil refining, energy, food, media and the football team Dnipro Dnipropetrusk. The Ukrainian government has weighed in behind the project as a site to host the 2018 Winter Olympic Games. The project is being managed and constructed by foreign firms, especially from South Tyrol (Italy).

Environmental impacts are clearly significant given a project of this size and scope, but documentation – to the extent that it exists – is not readily accessible.

The area in which the Bukovel ski zone is being constructed is one of the poorest areas in Ukraine. Even with most of the work being undertaken by foreign companies, the huge investment going into the project cannot help but generate incomes and investment for local people. The question however is whether €3 billion could not be invested more wisely, for the longer-term benefit of the region and local communities.

[20] *Suedtiroler Wochenmagazin*, January 3, 2008 (No. 01): Gerhard Tappeiner, „Alles ist moeglich: Wie Suedtiroler Unternehmer in den Karpaten das groesste Skigebiet Europas bauen"

Annex I: **Problematic ski developments**

Following are some – but not all – of the most problematic ski developments currently (2008) existing or under development in Central and Southeastern Europe.

Country	Development	Comments
Bulgaria	Aleko, Vitosha	Illegal construction in Vitosha Nature Park at the edge of Sofia.
Bulgaria	Super Borovets, Rila	Illegal construction in Rila National Park.
Bulgaria	Panichishte, Rila	Illegal construction in Rila National Park.
Bulgaria	Govedartsi-Iskrovete-Maliovitsa, Rila	Illegal construction in Rila National Park.
Bulgaria	Bodrost/Kartala, Rila	Illegal construction in Rila National Park.
Bulgaria	Kulinoto, Pirin	Illegal construction in Pirin National Park.
Bulgaria	Super Dobrinishte, Pirin	Illegal construction in Pirin National Park.
Bulgaria	Super Perelik, Rhodopes	
Romania	Arges County - Iezer	Pristine area, 2,000 m
Romania	Bihor County - Padis	Apuseni Nature Park, Natura 2000 sites (SCI, SPA)
Romania	Bistrita Nasaud – Valea Vinului and Sant	Rodna National Park, Natura 2000 site (SCI)
Romania	Brasov – Bran, Moeciu	Bucegi Nature Park, Natura 2000 site (SCI)
Romania	Caras Severin County – Valea Olteana Tarcu	Natura 2000 site (SCI), pristine area, 1,600 m
Romania	Cluj – Fantanele Belis	Apuseni Nature Park, Natura 2000 sites (SCI, SPA)
Romania	Cluj – Maguri, Racatau	Apuseni Nature Park, Natura 2000 sites (SCI, SPA)
Romania	Dambovita – Padina Pestera	Bucegi Nature Park, Natura 2000 site (SCI) – investment planned, works to begin shortly
Romania	Harghita – Lacu Rosu	Cheile Bicazului Hasmas National Park
Romania	Hunedoara – Baleia	Retezat National Park, SCI
Romania	Hunedoara – Clopotiva	Gradistea Muncelului Cioclovina Nature Park
Romania	Maramures – Poienile de Sub Munte	Muntii Maramuresului Nature Park, SCI, relatively unspoiled area
Romania	Maramures – Valea	Muntii Maramuresului Nature Park, Natura 2000 site

	Vaserului	(SCI), relatively pristine area
Slovakia	STIV Čertovica	Expansion of existing ski centre in Low Tatras National Park and NATURA 2000 site, important bio-corridor for large carnivores and matting places of *Tetrao urogallus* and *Tetrao tetrix*
Slovakia	Hrebienok, Starý Smokovec	Expansion of existing ski centre in High Tatras National Park, in the NATURA 2000 site and National Natural Reserve Slávkovská dolina
Slovakia	Jasná - Chopok	Expansion of existing ski centre in Low Tatras National Park
Slovakia	Ski Park Kubínska Hoľa	Expansion of existing ski centre in NATURA 2000 site
Slovakia	Donovaly – Liptovské Revúce	Expansion of existing ski centre in Low Tatras National Park and NATURA 2000 site, important matting places of *Tetrao urogallus* and *Tetrao tetrix*
Slovakia	Martinské Hole	Expansion of existing ski centre in NATURA 2000 site, important bio-corridor for large carnivores
Slovakia	Ski Oravská Lesná – ORAVASNOW	Expansion of existing ski centre in Protected Landscape Area Horná Orava and NATURA 2000 site
Slovakia	Snow Paradise Oščadnica – Veľká Rača	Expansion of existing ski centre in Protected Landscape Area Kysuce and NATURA 2000 site
Slovakia	Skipark Ružomberok	Expansion of existing ski centre in buffer zone of Veľká Fatra National Park
Slovakia	PARKSNOW Štrbské Pleso	Expansion of existing ski centre in High Tatras National Park, in National Natural Reserves Furkotská dolina and Mlynická dolina, and in NATURA 2000 site for dwarf pine forest (priority biotope of European importance) was cut and new ski run with length 1,850 m was already built in summer 2008.
Slovakia	Ski Center TLD – Tatranská Lomnica	Expansion of existing ski centre in High Tatras National Park, in National Natural Reserve Skalnatá dolina and National Natural Reserve Studené doliny, and in NATURA 2000 site.
Slovakia	Ski Center Vrátna	Development of existing ski centre in Malá Fatra National Park and in NATURA 2000 site
Slovakia	Chleb – south	Planned new ski facility in Malá Fatra National Park
Slovakia	SKICENTRUM – Bačova Roveň, Vyšná Boca	Development of existing ski centre in Low Tatras National Park and NATURA 2000 site
Slovakia	Ždiar - Strednica	Expansion of existing ski centre in High Tatras National Park and in NATURA 2000 site.

Slovakia	Zuberec – Janovky, Madajka	Expansion of existing ski centre in High Tatras National Park and NATURA 2000 site,
Slovakia	Zuberec – Zverovka, Spálená	Expansion of existing ski centre in High Tatras National Park and NATURA 2000 site,
Slovakia	Biele Kamene, Snina	Planned development of new ski center in Protected Landscape Area Vihorlat and NATURA 2000 site (500-1000 m a.s.l.)
Slovakia	SKI Center Námestovké Pilsko	Planned development of new ski center in Protected Landscape Area Horná Orava and NATURA 2000 site (800-1,400 m a.s.l.)
Slovakia	Sport and recreational Area NOVOVESKÁ HUTA	Planned development of new ski and sport center in buffer zone of Slovak Paradise National Park, Natural Reserve Muráň and NATURA 2000 site (600-1,050 m a.s.l.), planned cutting of 30 ha with old spruce forest.
Slovakia	Ski Center Spišský Paradise	Planned development of new large ski center in buffer zone of Slovak Paradise National Park and NATURA 2000 site (600-1,260 m a.s.l.), planned cutting of 463 ha of forest.

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