



# Storm in Tatras National Park (Slovakia)

## Background

On November 19, 2004, a storm with winds reaching a speed of 140-180 km/h literally flattened the forests on the south-eastern slopes of the Tatras National Park (NP), clearing a strip 2-5 km wide and 40-50 km long that covered an area of around 12,000 ha and affecting all zones of the park. The storm also severely damaged another several thousand hectares in other protected areas in the northern and central parts of Slovakia, including the Lower Tatras and Muranska Planina National Parks, as well as some productive forests.

The volume of fallen timber is estimated variously at 2,5 to 3 or even as much as 4 to 5 million cubic meters. This corresponds to at least 90% of the annual felling of coniferous wood in Slovakia. Most of the affected forests were spruce monocultures planted at the beginning of the 20<sup>th</sup> century.

Also affected were a series of ski and spa resorts located along the south-eastern slopes of the Tatras mountains that depend on the park. The storm damaged a number of buildings, completely blocked the public transport system, and for a few days cut several buildings and their inhabitants off from the outside world. Tragically two people were killed.

## Response

After the first shock of the storm, a public discussion has started among Government officials, politicians, experts, developers, NGOs, and other stakeholders regarding how to respond to the natural event. The discussion has raised two major issues:

[1] *Inappropriate forest operations, from logging to restoration.* It is widely known from international experience that the wrong response after a storm can cause even greater ecological damage than the storm itself. Salvage logging and poorly planned restoration may not only cause unnecessary economic costs, but could also be detrimental to biodiversity.

[2] *Inappropriate development of mass tourism, from the expansion of existing tourism facilities to the development of new ski resorts.* The protected areas of Slovakia, especially the Tatras NP, are of international importance for biodiversity conservation, recognised e.g. as an international biosphere reserve and nominated for protection through the EU's Natura 2000 network of specially protected sites. Thus, protecting the integrity of Tatra NP and preventing inappropriate tourism development which would go beyond the limits as proposed in the recently developed Tatra NP Management Plan and Tatras Land-use plan, should be at the top of the political agenda.

**Position Paper**

**December  
2004**

## Position of WWF

A natural and unexpected event of this scale is always an opportunity to assess conservation achievements to date, and shape a new strategy and vision. It is important that any new strategy and vision meet all international commitments of Slovakia and the Tatras NP as well as the needs of local and national stakeholders.



WWF believes that the Slovakian Government, Forest Service, National Park Service, tourism industry and scientists can learn important lessons from similar natural events throughout Europe over the last 20 years, e.g. in Germany, Switzerland, France, Austria or Poland, while at the same time showing real leadership to Europe in their response to this devastating event.

**Deadwood.** The storm should in WWF's opinion be regarded as part of natural and ecosystem dynamics. The nature that has attracted visitors to Tatras NP before the storm will continue to do so, in a new way. Therefore, in the core zone of Tatras NP, fallen and snapped off trees should be left at the sites as deadwood, providing home and shelter to many species as well as fertile ground for seedlings and natural regeneration. Most of the wildlife successfully escaped the storm, but will not tolerate further disturbances during winter and spring from intensive logging activities. Especially heavy machineries would force wildlife from its traditional habitats. In the B and C zones as well as in the buffer zone, a significant share of deadwood should be maintained.

**Bark beetles.** Spruce monocultures, particularly weakened once after a devastating storm, are an ideal habitat for bark beetles. WWF inevitably expects bark beetle outbreaks to occur in the next years in the damaged forests and surrounding spruce monocultures. However, in a National Park also bark beetle pests have to be seen as a natural phenomenon which is part of the forest ecosystem. Therefore, no interventions should be taken against bark beetles in the core zone of the National Park. In the B and C zones and the buffer zone, low-impact intervention (debarking) without use of pesticides should be applied to prevent the spreading of bark beetles to bordering productive forests.

#### **WWF and Storms**

Every year somewhere in Europe storms damage forests, causing great and even catastrophic damage and economic losses. If a storm strikes in a protected area, WWF highlights two ecological rules which must be taken into consideration before any restoration project/programme is launched:

- [1] storms are important drivers of natural dynamics (and biodiversity conservation) of natural forests;
- [2] the more natural the forest, the more resistant and resilient it is against storm damage.

**Economic benefits.** Leaving nature to develop its own processes for forest recovery in the core zone and implementing a low-impact restoration approach in the rest of the park's territory will provide several economic benefits through:

- [1]. reduction of costly logging operations, less restoration costs by supporting natural regeneration instead of planting and using deadwood as "natural fences" to protect natural regeneration against browsing. WWF assumes that selling the mainly poor quality wood from the storm will not pay off.
- [2]. maintaining or even increasing the level of visitors through raising the quality of their experience of nature. If the non-intervention and low-impact restoration approach are followed respectively, the storm sites will be much more attractive for visitors than hundreds or even thousands of hectares that have been cleared. Fallen trees will become rich tree nurseries, and life will very soon return in various forms. The beauty of new life can be made accessible to visitors by new nature trails and education programs. People will come to experience the power of natural recovery. This new form of tourism would provide economic benefits to the region in the long term.



### **Swiss Study “Findings from Managing the Storm”**

After the so-called Lothar storm in 1999, the Swiss Government issued a scientific programme to investigate the impact of the storm and how it was managed. The corresponding study was published by the Swiss Agency for Environment, Forests and Landscape (BUWAL) on November 9, 2004.

#### *Findings of the study*

- The economic impact of the storm was less severe than originally expected.
- The economic damage was increased by the fact that storm timber had been put onto the market and wood prices consequently dropped by one third.
- The storm itself was not an ecological disaster.
- Storms are driving forces to renew forests and to enhance biodiversity.
- Injured soil from clearing of fallen trees was the most important driving force for soil erosion.
- Fallen trees from the storm Vivian (1990) still have an effective protective function e.g. against avalanches.
- Natural mixed forests are more resistant against storms.

#### *Recommendations of the study*

- Make forests more natural and thus more storm resistant.
- From an economic and ecological point of view, leave more storm timber in the forest.

**Source:** [http://www.umwelt-schweiz.ch/buwal/de/fachgebiete/fg\\_wald/rubrik3/uebersicht/index.html#sprungmarke18](http://www.umwelt-schweiz.ch/buwal/de/fachgebiete/fg_wald/rubrik3/uebersicht/index.html#sprungmarke18)

**WWF expresses its concern** regarding the future of this internationally outstanding European park.

- It is vitally important that the storm will not be used as an excuse to change the long-term goals of the Tatras NP and its borders, or to take measures which threaten its biodiversity. WWF trusts that the Slovakian government will carefully analyse the situation and will make wise decisions reflecting the long-term, sustainable use of the area’s natural resources.
- It is important that the Slovakian government, the Administration of Tatras NP, foresters, landowners and investors in the tourism sector ensure that their future business activities do not cause further damage to the park.

### **WWF encourages the Slovakian government**

- to fully respect the Slovakian Act on Nature Conservation and approve the recently prepared new zonation and Management Plan for Tatras NP;
- to fully comply with its international commitments, including the Convention on Biological Diversity, International Biosphere Reserve Tatra, IUCN criteria for category of National Park, as well as EU Habitats and Birds Directives;
- to develop a modern, nature conservation-oriented restoration plan that: fully respects IUCN criteria for National Parks; and includes inter alia stakeholder involvement, non-intervention principle for core zone, maintaining a significant share of deadwood in the B and C zones and buffer zone, and no use of pesticides to control potential insect outbreaks.
- to guarantee the integrity of Tatras NP and other affected protected areas, to direct new investments towards improving the quality of existing facilities



without increasing capacity and to allow prospective development directed to the communities around the park.

**WWF encourages the business sector**

- to resist the temptation to establish additional tourism facilities, but to focus rather on the careful restoration of existing ones;
- to build on good international experience with eco-tourism which can be established after natural events, and which can yield economic benefits.

**WWF will work with partners**

- to encourage NGOs to use their knowledge, enthusiasm and capacity, and become a strong partner for the Slovakian government and Tatras NP Administration in the implementation of the recently developed zonation and Management Plan for Tatras NP;
- to develop an economically, ecologically and socially viable strategy for restoring the affected forests;
- to cultivate international support for the restoration process;
- to carefully monitor the official strategy for managing the calamity and restoring the affected forests;
- to identify the best steps how to support Tatras NP and other protected areas;
- to increase public awareness and support for the maintenance of the Tatras NP with its boundaries and the new zonation and Management Plan as recently developed with key stakeholders.

**Contact.**

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