

# Poľana Biosphere Reserve

## Slovak Republic

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### Key Messages/Lessons learnt

- Preserving a unique landscape structure, promoting the conservation of natural resources and the sustainable use of grassland in the Poľana Biosphere Reserve
- Supporting climate change adaptation and other aspects of global environmental change
- Restoring traditional land use as a tool for increasing and preserving biodiversity
- Strengthening correct communication, cooperation and participatory management, which is applied in the Poľana Biosphere Reserve
- Obtaining trust and awareness among local residents with the aim of valorising the UNESCO brand

### Biosphere Reserve description



Poľana is the highest volcano mountain in Slovakia. The whole range is part of Carpathian arch. There are technophiles as well as mountain plant and animal species on a relatively small area due to

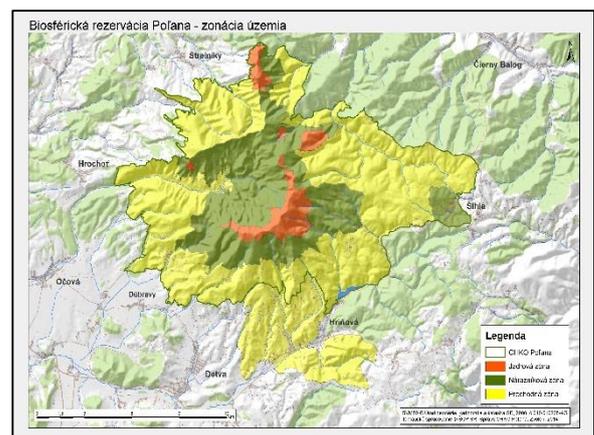
its protrusion to south and altitude range of almost 1000 m (the lowest point is 460 m and the highest is 1458 a.s.l.).

Spot height Hrb (1255 a.s.l.), which is at its north edge of Ľubietovský Vepor is geographic centre of Slovakia. A unique geological and geomorphological character of this area is a result of volcanic activity in the period 13 – 15 millions years back. Forests cover 85 % of the area. Large beech forests, fir-beech forests and hillside forest communities are typical for Poľana. They have primeval forest character at places. Areas that were deforested long time ago are represented today by communities of meadows and pastures, which also encompass peat lands and meadows rich in groundwater. Mountainous and sub-alpine species of grass are typical. Rock communities increase overall biodiversity of the area.

Thanks to high habitat biodiversity the representation of non chordata is very rich as well. Many of them are endemic, rare and threatened. Since 2016 Hriňovské lazy belong to the transition area. It is a mosaic of small strips of land, interlaced by meadows and pastures at former arable land, lanes, sometimes overgrown by hip-roses, sloes and wild cherries. Horses and traditional farming tools are used in this area. Character of this landscape is highlighted by

traditional wood houses, barns, potato cellars, painted wooden crosses and other folk art. Scattered settlements were created in Hriňová due to difficult accessibility of arable land. Current area of individual zones in the Poľana Biosphere Reserve: core zone 1332 ha, buffer zone 7930 ha, transition zone 11 098 ha. In 2016, the transition zone of the Poľana Biosphere

Reserve was extended by a part of Hriňovská lazy with an area of 2744 ha. The expansion of the transition zone has increased the area of land with permanent grassland.



### 1. Map and position Poľana Biosphere Reserve

## BR challenges

The majority of the territory of Poľana Biosphere Reserve is covered with forest (about 74%), the rest is agricultural land, a small part is a water area. Forestry activities are carried out



### 2. Traditional landscape at Hriňovské lazy

predominantly in low-altered but partly harvested coniferous and deciduous forests. About 60% are coniferous and about 40% deciduous. In the territory of Poľana Biosphere Reserve are currently operating, both large entities - agricultural cooperatives, commercial companies and small private farmers, especially in the southern part. Part of the grasslands, especially the smaller meadows in the forest on the forest land fund, are also managed by LESY SR, state enterprise and hunting associations. Agricultural land use is a prerequisite for maintaining semi-natural grassland habitats in a favourable condition. Agricultural land - meadows and pastures are mainly used for mowing and grazing cattle and sheep. In the past, the use of land for agriculture was much more intense than at present. This was also due to the significantly higher livestock population. These are currently low, and thus the interest in using outlying parts of the biosphere reserve is reduced. As a result,



### 3. Sheep grazing at Poľana

grasslands are overgrown, their area is reduced and biodiversity is lost. The Poľana Biosphere Reserve lost many precious areas where rare and protected plant and animal species had been found, as well as natural food sources.

## Initiatives/Actions on SDG

**15. The Biosphere Reserve thus contributes to the goals of SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss**

**15.1** By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

**15.A** Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems

### Promoting of traditional land management by local users and landowners

The Biosphere Reserve Poľana applies a participatory governance model. Its management promotes cooperation, transparency, fairness, diligence and responsibility. It seeks to strengthen local communities' links to land and its sustainable use, which is needed to increase biodiversity and maintain ecosystem services. To reach this goals the management of BR Poľana actively carries out the following steps:

- Promotes legislative proposals to improve the use of permanent grassland and to popularize products from the Biosphere Reserve Poľana (decree proposal to support BR products)
- Seeks to maintain the traditional management of permanent grassland and support local farmers through micro grants
- Working closely in granting exemptions for tree felling on permanent grassland in the Biosphere Reserve Poľana (passporting, marking of trees, participation in negotiations, ...)
- Supervises consistent removal of weed and invasive plant species in the pasture area

## Strengthening the importance of man in the territory and gaining confidence of public towards the Biosphere Reserve Poľana



### 4. Opening day of Poľana Biosphere Reserve

- Communication with the public during the Open Day of the Poľana Biosphere Reserve, where stakeholders present their activities in the area in terms of traditional land management, habits and original crafts. The program provides visitors with a comprehensive picture of the natural, cultural values and traditions of our region.
- Promotion of cultural events in the region focusing on traditions and original crafts: Folklore festival under the Poľana (Detva), Farming at Hriňová fields (Hriňová), cart horse races (Hriňová) and others.
- Practical training in the care of permanent grassland - professional internships for students from secondary schools and universities.
- Workshops and proven cooperation with landowners and users of permanent grassland.



### 5. Seed beating

By implementing activities, the Poľana Biosphere Reserve brand as a UNESCO site has become acceptable to local governments that engage the interests of the biosphere reserve in their strategic documents. Thanks to the correct cooperation, for example localities with permanent grasslands were accepted in land use planning documentation.

### Practical Outcomes/Achievements

The current management of the Poľana Biosphere Reserve involves local stakeholders in programs that help to maintain permanent grassland. Poľana was one of the pilot areas where an agri-environmental program in Slovakia has been implemented since 2004. In 2011 project "Development of nature conservation and protected areas in the Slovak Carpathians" was implemented in the area, aimed to local farmers support and traditional land use through microgrants. The project was supported by the Swiss financial mechanism. Land managers have begun removing bush and have begun to farm rare lands in a traditional way. They ensured the protection of moors, peat bogs and high-grassland wetland and pasture communities, and so they have improved the living conditions for amphibians as well. During the project, local farmers and land users farmed about 156 hectares of land. After 20 years, they returned to Poľana sheep and cattle breeding. At present maintaining of the favourable status of non-forest habitats and species through the intensive cleaning of overgrown grasslands and meadows (e. g. Hrochotská valley, Príslopy, Majerová, Bukovina, Vrchdetva, Zákľuky) is still carrying out. These special areas require permanent management. Thanks to intensive communication these activities are successful. E. g. Lesy SR state enterprise manages several localities in Poľana BR (Dolná Zálomská, Hukavy, Horná and Dolná Sihla), what is reflected in biodiversity increase on the areas.



### 6. Traditional land use

### Measures:

- manual mowing of wetland communities
  - fencing of the gene pool areas for their protection against forest animals and livestock
  - eradication of spruce stands twice a year
  - setting watering place for forest animals
- Condition and biodiversity of re-cultivated meadows and pastures are still monitored. Thanks to the above-mentioned measures, endangered plant species can be preserved: *Carex cespitosa*, *Dactylorhiza majalis*, *Campanula serrata*, *Orchis morio*, *Dactylorhiza sambucina* a *Traunsteinera globosa*, *Trollius altissimus*, *Parnassia palustris*, *Platanthera bifolia* and animals: *Maculinea arion*, *Stethophyma grossum*, *Carabus variolosus*, *Triturus alpestris*



7. *Dactylorhiza majalis* 8. *Orchis morio*



9. *Maculinea arion*

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