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FACTSHEET

A 2020 perspective on ecological connectivity in the Carpathians

SLOVAKIA


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53.4%

More than half of the country is covered by agricultural land (48.5%) and built-up areas (4.9%).

Higway and motorway network of the Slovak Republic in 2019

The new infrastructure developments become barriers to ecological connectivity:

- »Motorways, highways, railways
- »Artificial water bodies
- »Logistic, industrial and shopping centres
- »Settlements
- »Large-scale fencing of agricultural areas

Species which depend on long-distance migration

Threats

»landscape fragmentation
»migration barriers
»poaching

Population	Conservation status:
900-1300	strictly protected
300-600 (100 packs)	endangered
300 - 400	strictly protected

Hunting allowed between November 1st - January 15th *(hunting quota 2019/20 – 35 wolves)*

Data based on last reporting to European Commission on Habitats Directive species

Slovakia's natural wealth

Slovakia's rich biodiversity includes over 800 protected plant species and over 1000 protected animal species. Among them, large carnivores – bears, wolves, lynx – hold a special place: as an „indicator species" at the top of the food chain, they are a sign that nature is healthy and thriving.

Ecological connectivity

An unfragmented landscape provides essential, unhindered paths for wild species to migrate, search for food and to reproduce within a large and healthy gene pool. Protected and continuous ecological corridors are an important element in reducing human-wildlife conflict, especially for animals that depend on long-distance migration and large hunting ranges such as bears, wolves and lynx.

Accelerated landscape fragmentation in Slovakia

Slovakia is developing at a fast pace.

Built-up areas (Doubled)

1994	2018
2.6% of the country *(1284.63 km²)*	4.9% of the country *(2402.66 km²)*

Highways/motorways (Quadrupled)

Until 1989	2019
188 km	778 km

(Slovak Environmental Agency/Slovak Road Administration)

What is the impact of landscape fragmentation on wildlife and people?

As their survival needs push them to migrate, animals manage to cross manmade barriers, risking both their own lives and those of humans.

In 2018

857 **Railway accidents with animals** *(Railways of the Slovak Republic)*

76 **Severe car accidents** *(2 people died, 9 heavily injured, 42 severe consequences) (Police)*


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What can be done to diminish the impacts of landscape fragmentation and to ensure ecological connectivity?

Legal instruments

- **The General Scheme of the Territorial Systems of Ecological Stability** (GN-TSES) (adopted in 1992, updated in 2000) which identifies terrestrial ecocorridors was incorporated into the Slovakian Spatial Development Perspective 2001 (KURS). It was difficult to implement this plan as institutions from relevant fields (nature protection, transport, agriculture, forestry and regional development) do not work in an integrated manner.
- **Subsequent legislation** related to spatial planning was coordinated with the **Territorial Systems of Ecological Stability** (TSES):
  - Act nr. 50/1976 on **Land-use / Territorial Planning and Building Code**
  - Act nr. 24/2006 on **Environmental Impact Assessment** (EIA)
  - Act nr. 364/2004 on **Water Management**
  - Act nr. 326/2005 on **Forest Management**
  - Act nr. 543/2002 on **Nature and Landscape Protection**
- **The Slovak National Biodiversity Protection Strategy** (adopted in 1997) mentioned bio and ecological corridors as important measures for biodiversity protection and sustainable land use. Yet, this document, too, encountered difficulties during the implementation.
- **The Strategic Plan for the Development of Transport Infrastructure of the Slovak Republic** supports the construction of ecoducts in the context of reducing the impact of transport on the environment.

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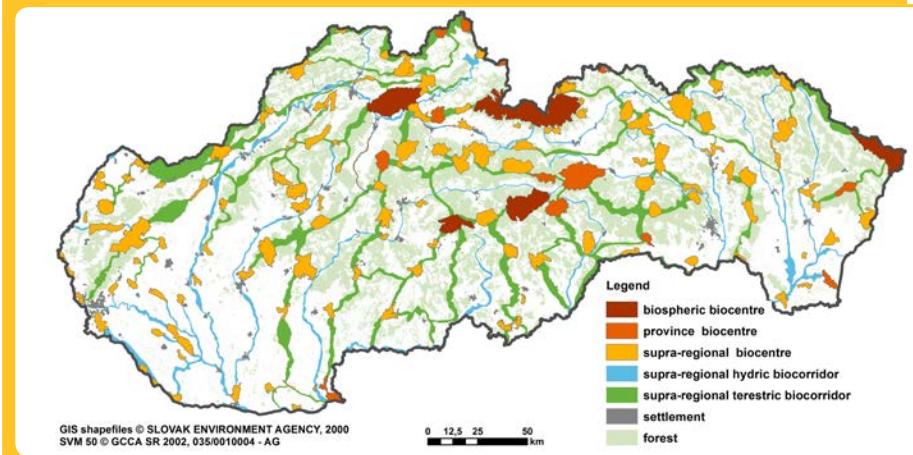
Spatial planning

The "backbone" of the spatial ecological stability of Slovakia is represented in the map below – a graphic tool used in spatial planning at the national level. The map pinpoints bio centres (11.9% of the surface of the country) and bio corridors which frequently overlap with the national system of protected areas and Natura 2000 areas.

bio corridors = spatially interconnected set of ecosystems that connects biocentres and **allows for the migration and exchange of genetic information of living organisms and their communities**, to which the interaction elements are spatially connected.

*Legal definition from **Act nr. 543/2002 on Nature and Landscape Protection***



Map title: *The General Scheme of the Supra-regional Territorial System of Ecological Stability (GSTSES) of the Slovak Republic, 2000*

Authors: *RNDr. Miroslav Liška, et al.*

Project: *Updating of the GSTSES SR, as requested by the National Environmental Action Plan, approved by the Resolution of the Government of SR nr. 350/1996 (SEA, 2000)*

Practical solutions

Ecoducts are one practical solution for maintaining connectivity when transport infrastructure sets a barrier for wildlife migration.

Finalized ecoducts	Ecoducts being built	Planned ecoducts
D1: Mengusovce – Jánovce D1: Važec - Mengusovce D2: near Moravský Svätý Ján.	D4: around Bratislava R 7: around Bratislava	D1: Turany – Hubová D3: Svrčinovec-Skalité R2: Kriváň- Lovinobaňa, Jablonov nad Turňou – Včeláre, Mníchova Lehota – Ruskove, Pravotice – Dolné Vestenice R1: Banská Bystrica – Slovenská Ľupča, Ružomberok

D2 ecoduct near Moravský Svätý Ján

- was built in 2016 to maintain migration between Alps and Carpathians (within the "Alpine Carpathian Corridor project (AKK)")
- AKK won the IENE Prize for the most successful project contributing to ecological stability
- appeared on the European Commission's list of best practice examples for maintaining ecological stability

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ConnectGREEN project focuses on improving ecological connectivity in relation to spatial planning based on scientific knowledge and data. The ecological corridors will be identified based on a new Carpathian-wide methodology and measures for mitigating threats to these corridors will be developed in 4 pilot sites. One of them are Western Carpathians on Czech-Slovak border.

Project co-funded by European Union Funds (ERDF, IPA)

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