



INTEGRATED TRANSPORT PLANNING

Assessing multinational infrastructure projects



Krásnohorské Podhradie - herd of deer ©Ján Kilik

PILOT AREA:

Miskolc-Košice-Uzhgorod
(Hungary-Slovakia-Ukraine)

Stage of the infrastructure project:

1 Scoping /
Early planning

2 Planning

3 Construction

4 Operation,
monitoring &
maintenance

Miskolc-Košice-Uzhgorod area is located on the Hungarian-Slovak-Ukraine border and is an example of Planning Stage of an infrastructure project. This area was selected due to presence of ecological corridors, protected sites or Natura 2000 sites located along the segments of transport infrastructure that are in the planning or construction phase.

A particularity of this pilot area is its transnational status: the Miskolc-Košice-Uzhgorod motorway network connects three countries. This means that three states need to coordinate their efforts towards ensuring connectivity for wildlife. Moreover, in the three countries the infrastructure projects are in different stages of development.

Measure proposed

Conduct research and harmonize research results in order to support preparation of mitigation measures for wildlife connectivity in relation to roads and railways

When it comes to maintaining the landscape connectivity, it is important to see the area as one entity. This is a challenge due to the fact that each country has its specific data and knowledge available, varied monitoring procedures, transport infrastructure planning processes, legislation. Therefore, in the TRANSGREEN project, partners in each country collected information available and analysed gaps of knowledge, in order to have a complete picture of the area and to support further activities in a coordinated manner. As a result, a list of recommendations to fill in the gaps was developed:

- ✓ Introduce harmonised data on animal mortality on roads and railways in one database
- ✓ Make free GIS data available
- ✓ Develop more complex studies on wildlife movement, also in relation to roads and railways
- ✓ Develop a map of migration corridors available
- ✓ Communicate gaps in biodiversity data

Migration corridors in the pilot area/critical points identified

There were several migration routes identified in the pilot area based on animal movement, animal road mortality and using data provided by phototraps. The most critical ones were selected (critical points) and described in the project publication "In-Depth Analysis of the pilot area". Altogether, there were 2 main corridors identified in Hungary, 15 in Slovakia and 5 in Ukraine. Measures to improve permeability of these critical points will be proposed at the end of the TRANSGREEN project in the "Catalogue of Measures".

Slovakia:

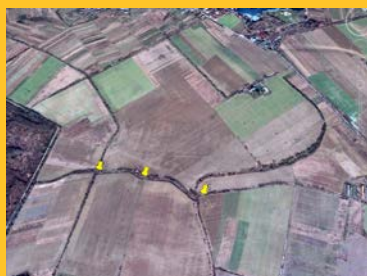
15 corridors/ critical points were identified in the area by using data gained by phototrap monitoring and road/railway mortality mapping.

Ukraine:

5 corridors were identified

Hungary:

2 corridors were identified



Beregove - critical point in Ukraine



Brezotin biocorridor in the Slovak part of the pilot area - tracks of red deer herd ©Milan Oleksák

Pilot area:

Miskolc-Košice-Uzhgorod (Hungary-Slovakia-Ukraine)

Landscape, key species and threats

Forests, floodplain forests, grasslands, wetlands and agriculture fields are covering the hilly landscape of this pilot area. Several protected areas – national and international level, such as Natura 2000 sites or Ramsar sites – indicate its natural value.

Large mammals, such as red deer, roe deer, fallow deer, wild boar are large mammals, are most sensitive to the presence of transport infrastructure. The Slovak part of the area includes migration corridors for dispersal of large carnivores to Hungary.

Transport infrastructure represents a barrier also to many medium size mammals, such as badger, otter, red fox, European hare, different species of Mustelids, etc. There are also many wetlands in the area, which create important habitats for large birds of prey, waterfowl and amphibians, of which high number is killed each year on the roads.

Other concerns that infrastructure plans raise in relation to nature in the pilot area:

- ✓ habitat fragmentation
- ✓ biodiversity loss
- ✓ disruption of migration routes
- ✓ mortality caused by collisions
- ✓ issues of noise pollution, emissions from vehicles and visual disruptions.

Infrastructure projects in the pilot area

In Hungary, there is a new motorway planned from Vásárosnamény to Beregsurány (HU-UA direction), from Miskolc to Tornyosnémeti (HU-SK direction). In Slovakia, there is an ongoing construction of R2 expressway from Trenčín to Košice, the D1 motorway from Košice to Vyšné Nemecké (SK – UA state border) and the R4 expressway from Haniska to Kechnec (SK – HU state border, direction to Miskolc).

Stage of infrastructure development

	In preparation	Under construction	Constructed
Hungary	M34 motorway section between Vásárosnamény and Záhony HU-UA: M3 motorway section between Vásárosnamény and Beregsurány (EIA is being prepared) extension to a 2x1 lane motorway	M30 road between Tornyosnémeti and the Slovak state border M30 motorway between Miskolc and Tornyosnémeti	-
Slovakia	R2 – different stages of planning D1 Košice - Michalovce and Uzhgorod (UA)	D1 Motorway, section Budimír-Bidovce – will function as a bypass of the city of Košice. It will improve the connection between Košice, Eastern Slovakia and Hungary	D1 Košice-Bidovce R2 road – selected parts (40km out of 230) R4 Košice and Milhošť - SK/HU state border
Ukraine	Mukacheve – Beregove – Luzhanka (border crossing between Ukraine and Hungary), consisting of reconstruction of existing road (II category) between Mukacheve and Beregove and construction of Beregove bypass. Lviv – Mukacheve - a new highway between Lviv and Mukachevo, so far without specification of exact location, a pre-feasibility study is carried out.	-	-