



# Improving the ecological connectivity in the Carpathians

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WWF Danube-Carpathian Programme**

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on Spatial Planning and Biodiversity,  
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# Context

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**Ecological corridors** in the Carpathians are important for

- Biodiversity
- Stability & resilience of ecosystems
- Ecosystem services
- Prosperity of the region

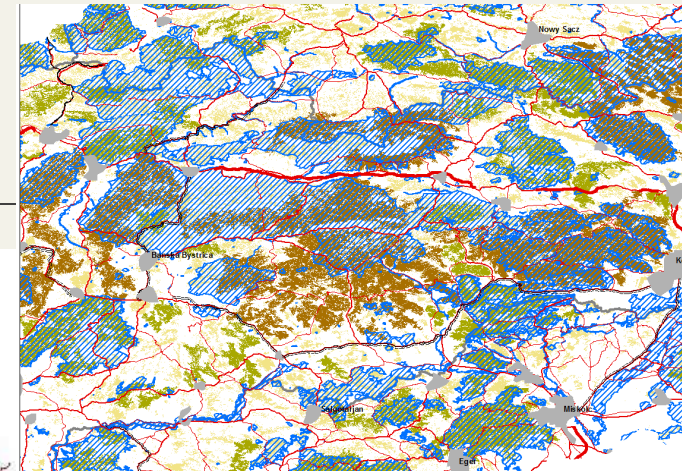
## Threats

- Fragmentation
- Land use change due to infrastructure development

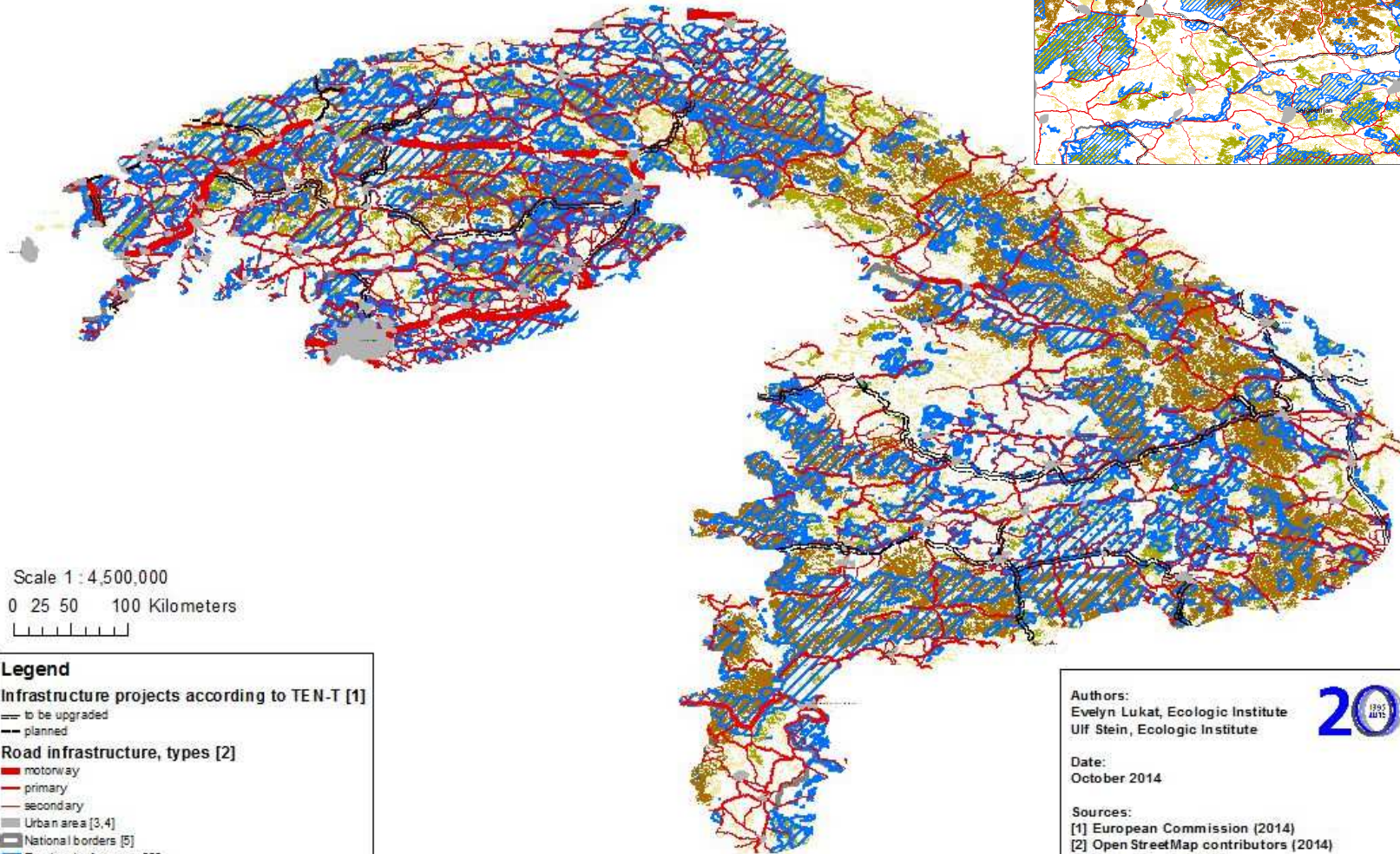




# Infrastructure projects according to TEN-T



Detail



Scale 1 : 4,500,000  
0 25 50 100 Kilometers

**Legend**

**Infrastructure projects according to TEN-T [1]**

- to be upgraded
- - - planned

**Road infrastructure, types [2]**

- motorway
- primary
- secondary

- Urban area [3, 4]
- National borders [5]
- Protected areas [6]

**Habitat (lynx) [7]**

- uninterrupted area > 30km<sup>2</sup>, treecover 50 - 100 %
- uninterrupted area < 30km<sup>2</sup>, treecover 50 - 100%
- migration corridor, treecover 30 - 50%

Authors:  
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Ulf Stein, Ecologic Institute

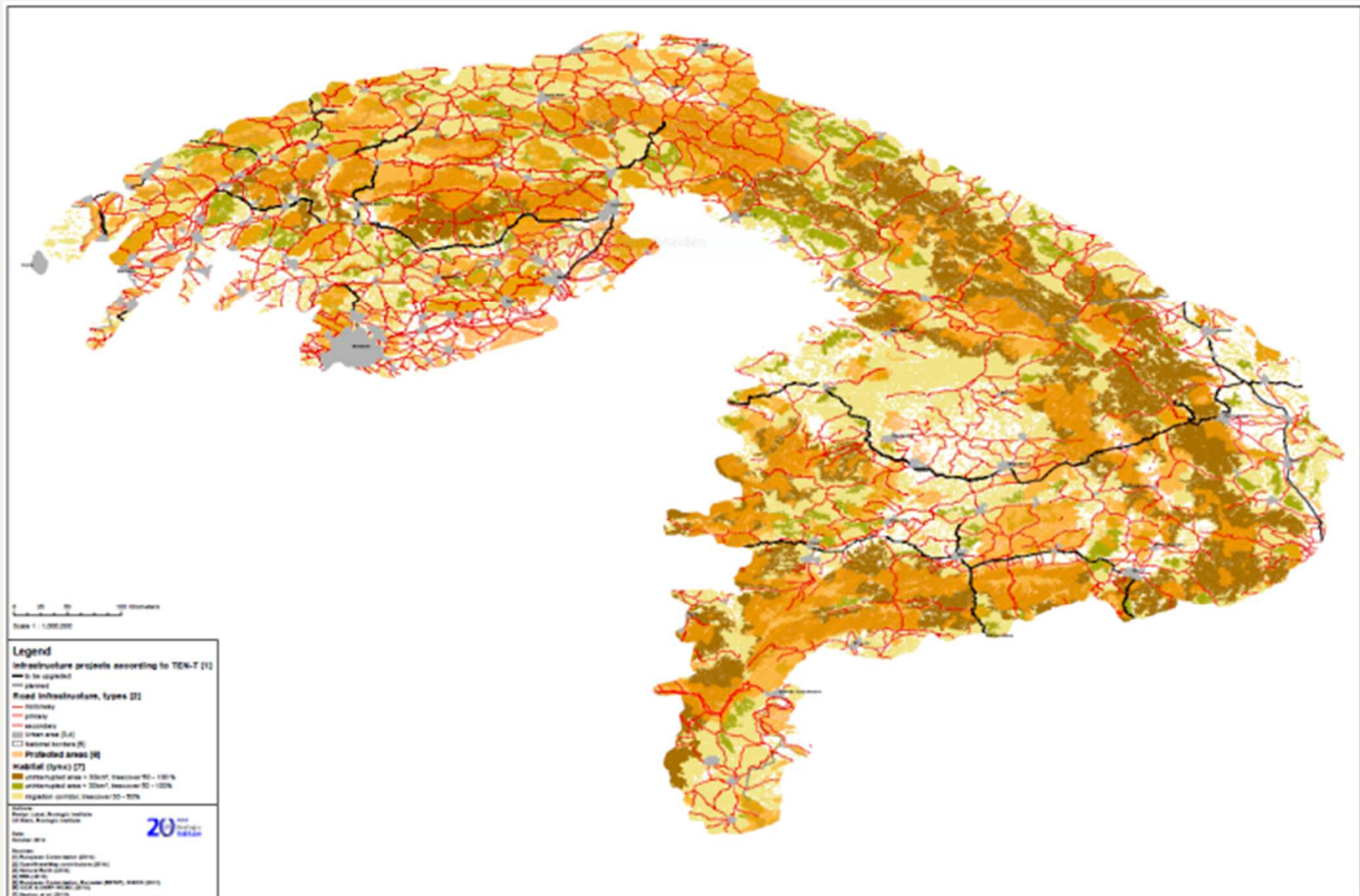


Date:  
October 2014

Sources:  
[1] European Commission (2014)  
[2] Open StreetMap contributors (2014)  
[3] Natural Earth (2014)  
[4] EEA (2013)  
[5] European Commission, Eurostat (E STAT), GISCO (2011)  
[6] IUCN & UNEP-WCMC (2014)  
[7] Sexton, et al. (2013)



# Infrastructure projects according to TEN-T





## Bioregio project

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- Carpathian Red List of Habitats and Species
- Carpathian Integrated Biodiversity Information System
- Common Integrated Management Measures
- Continuity and Connectivity – physical, legal, socioeconomic barriers
- Regional development opportunities
- Financial mechanisms and innovative economic tools
- Experience sharing with Alps and Dinaric Arc/Balkans



# Bioregio project – Management measures

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Focus on forests, grasslands, wetlands, large mammals

E.g. Forests:

- Protection measures: identify/protect old growth/virgin forests, establish non-intervention zones, close-to-nature forest mgmt
- Enabling measures: strengthen procedures for EIA, introduce credible certification schemes, promote local wood processing



## BioREGIO Carpathians project

### Legal barriers related to ecological corridors

- Obligations are defined broadly at the **international level**
- Environmental law and policies, biodiversity and specific fundings (LIFE) were applied at the **EU level**. Aside, national implementation and enforcement pose problems.

#### At the **national level**

- No reference to ecological connectivity or networks in Constitutions, in most ordinary law, in most sectoral legislation
- Reference to strategic documents is not binding
- Lacking protection of countryside outside of protected areas
- Environmental law is mainly centralised at the state level, while administrative tasks/power is often spread and not coordinated among public bodies



# Transport infrastructure development – Romania

## Transport Infrastructure

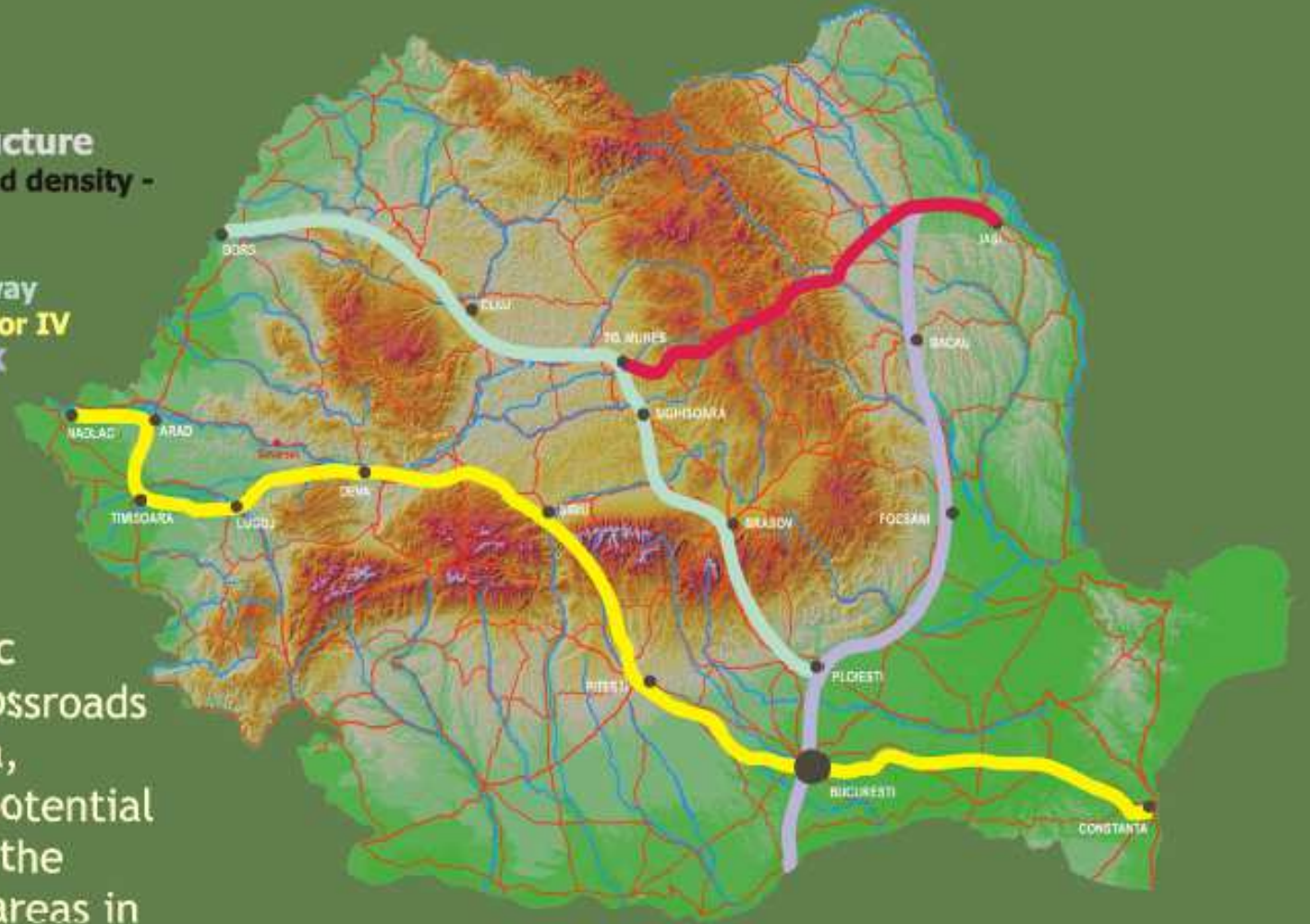
>at present: paved road density - only 0.06 m/sqkm

>in development:

Transylvania Motorway

Pan-European corridor IV

Transport corridor IX



“

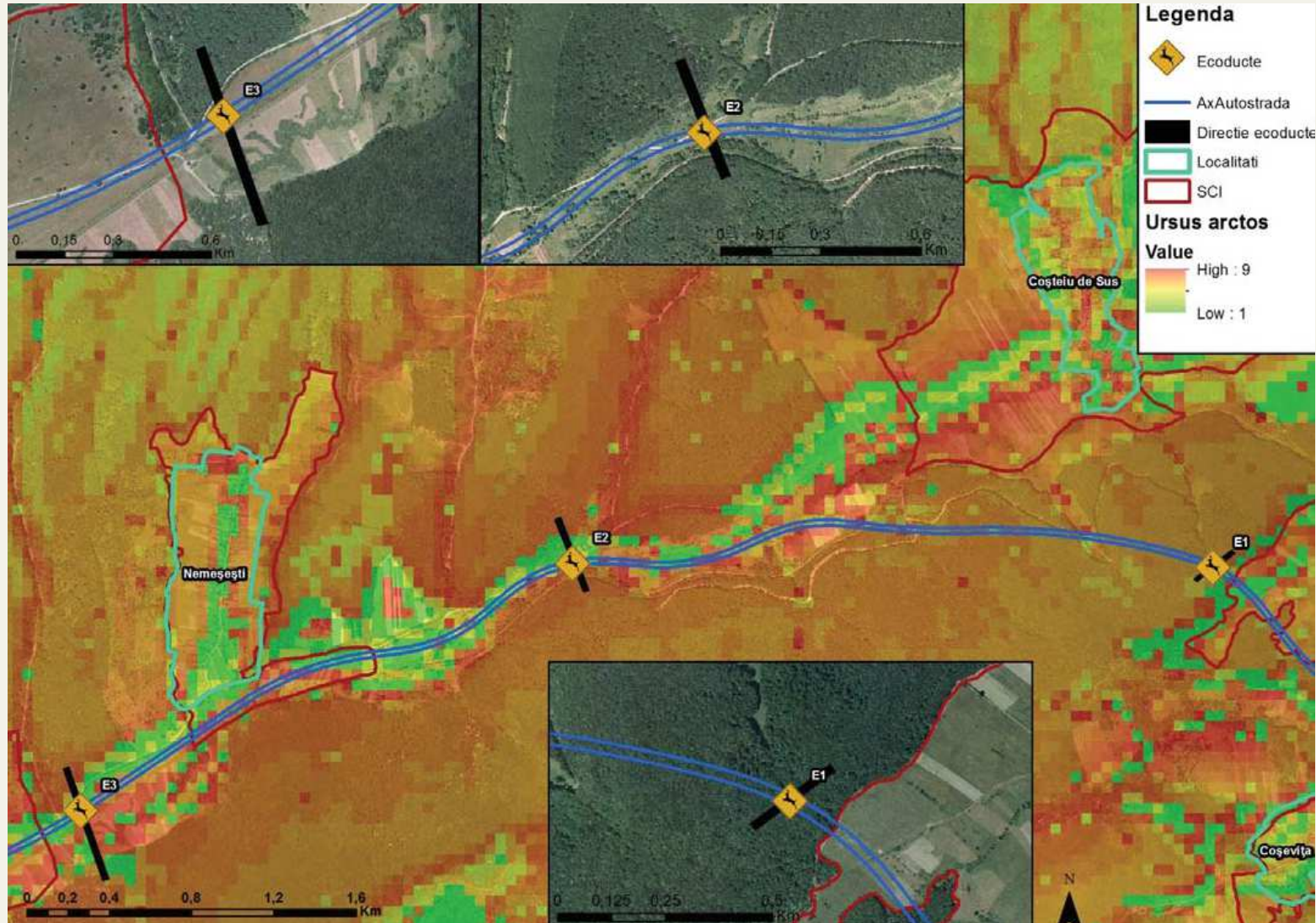
Due to its strategic location at the crossroads of Europe and Asia, Romania has the potential to become one of the busiest transport areas in Central and Southern Europe

- The Centre for South-East European Studies (CSEES)



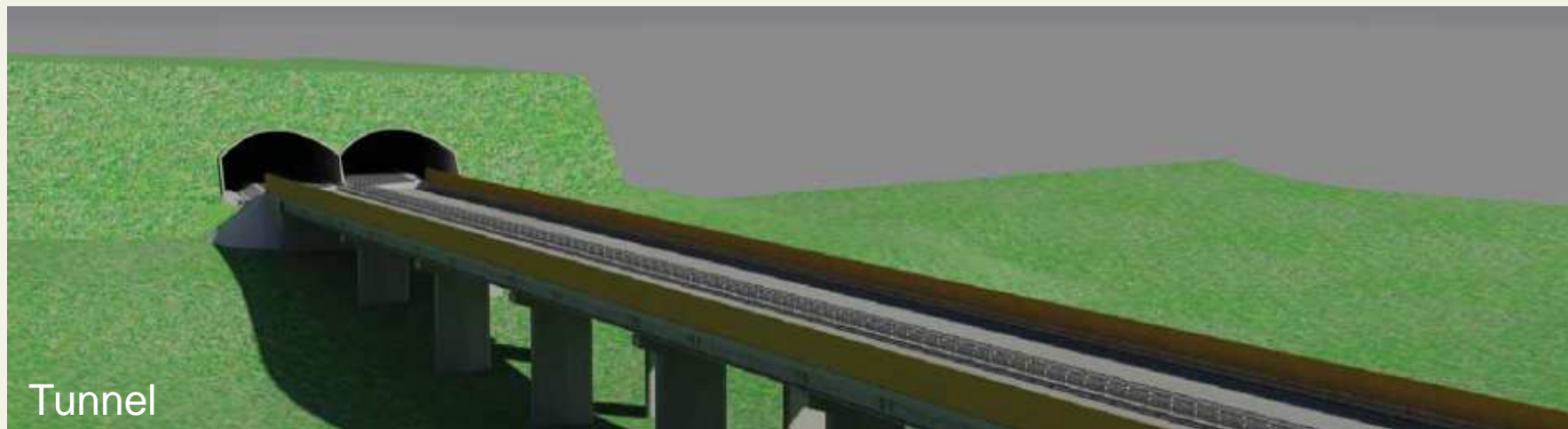
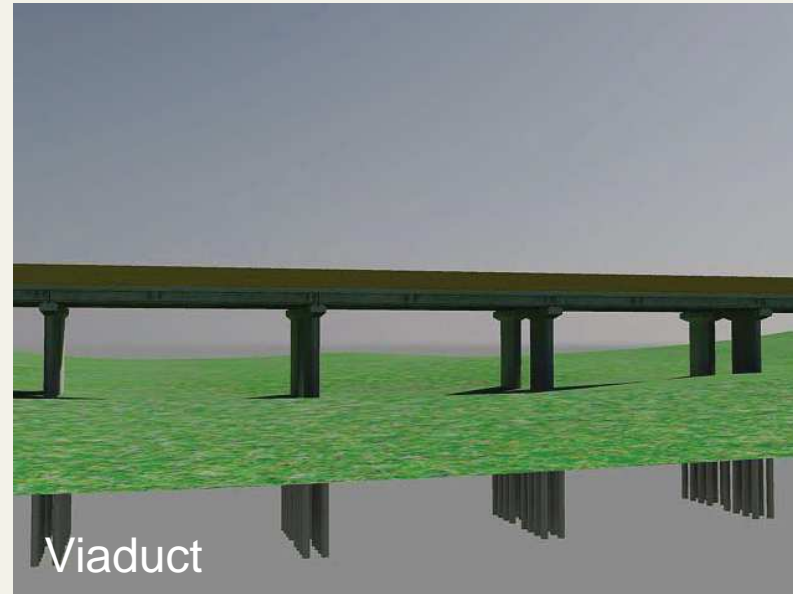
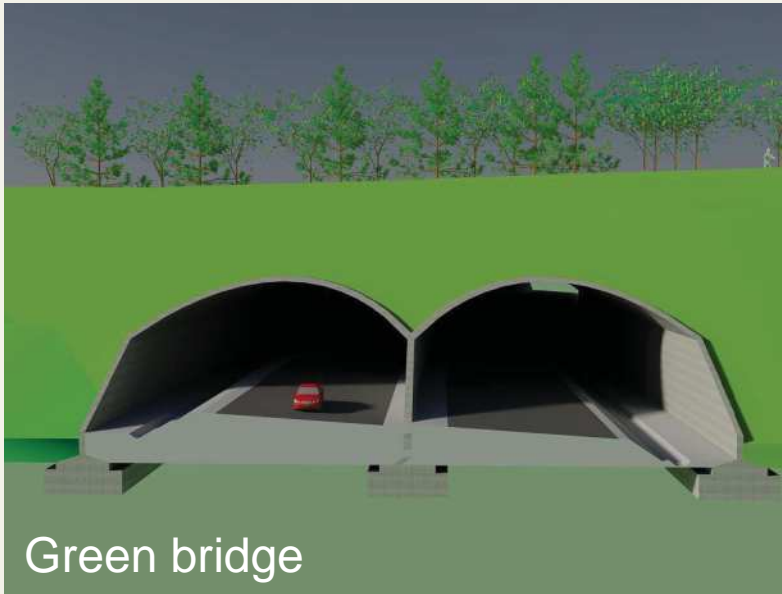


# Lugoj-Deva Highway – case study





# Solutions approved by environmental permit





## Bears project – Maramures 2011-2014

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### Main objective

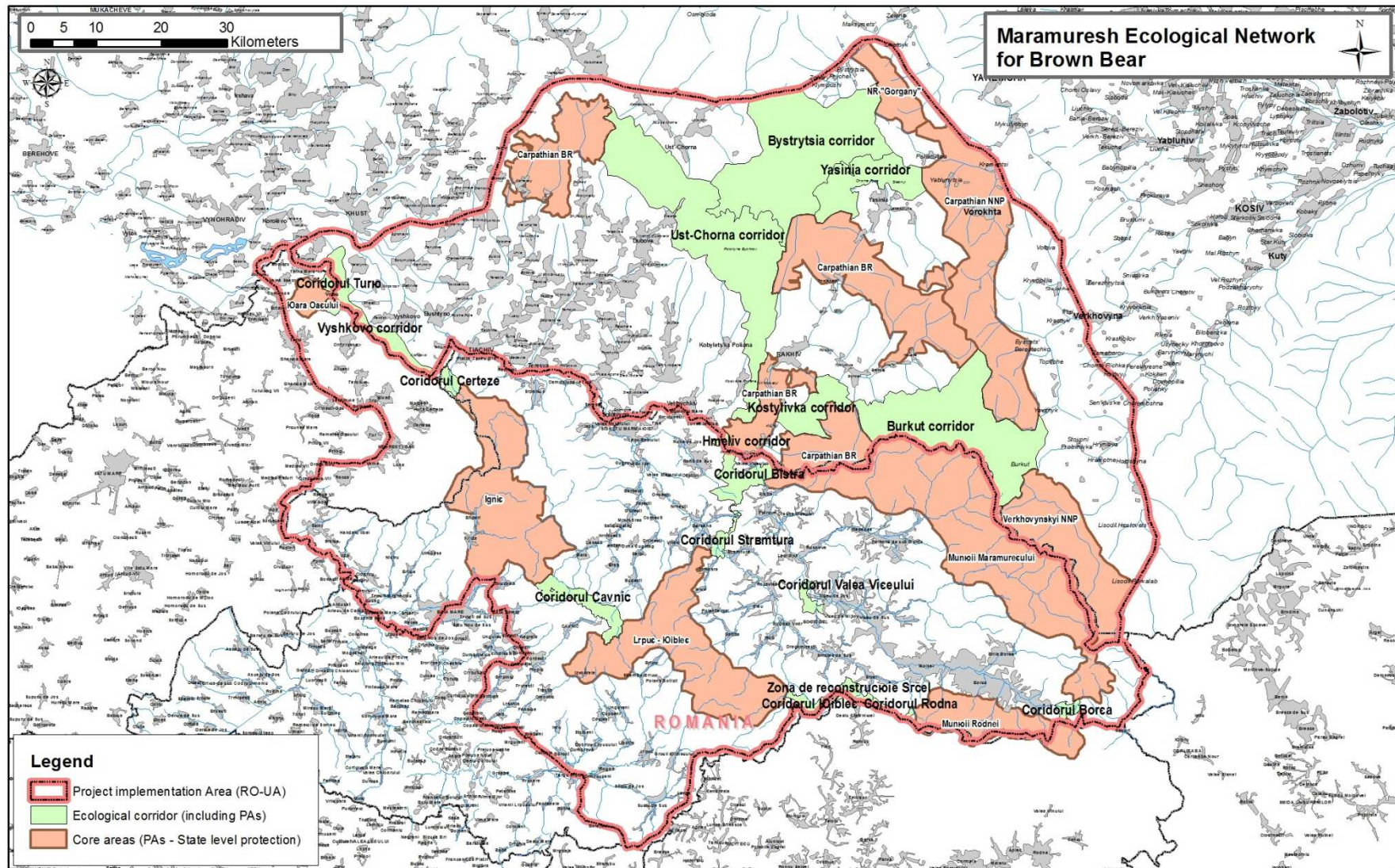
Preserve biodiversity in Maramures as a critical stepping stone for the connectivity of the Carpathian Mountains by:

- reducing the risks of habitat fragmentation;
- restoring ecological corridors for bears as an umbrella species;
- securing responsible use of natural resources .





# Example Maramures





## Recommendations

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- Involvement of stakeholders is key
- Develop, propose and implement effective management measures endorsed by key stakeholders and authorities
- Integrate ecological corridors into regional development plans and spatial planning
- Harmonise plans across the borders





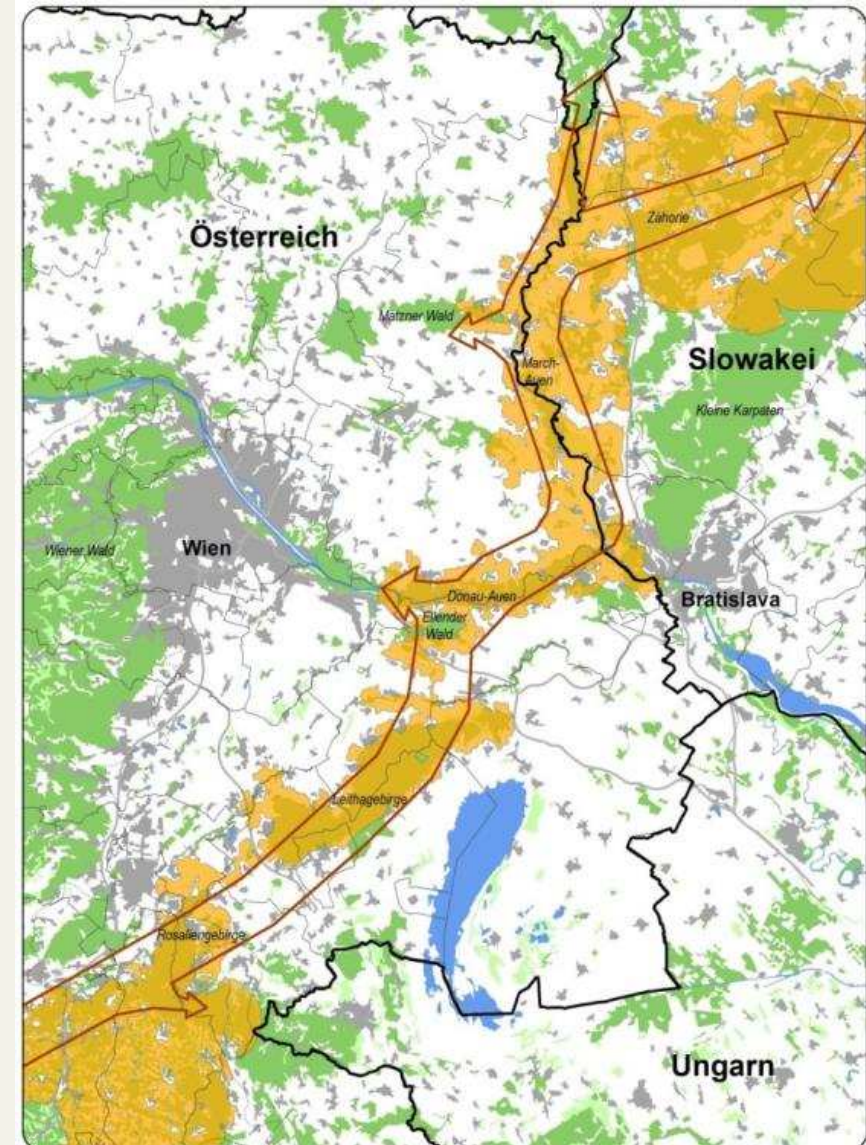
# Alpine-Carpathian Corridor project





## Activities within the AKK project

- Mapping
- Communication at all levels
- Commitments at the political level: cross-border MoU January 2012
- Green bridges/investments
- Spatial planning
- Action plans





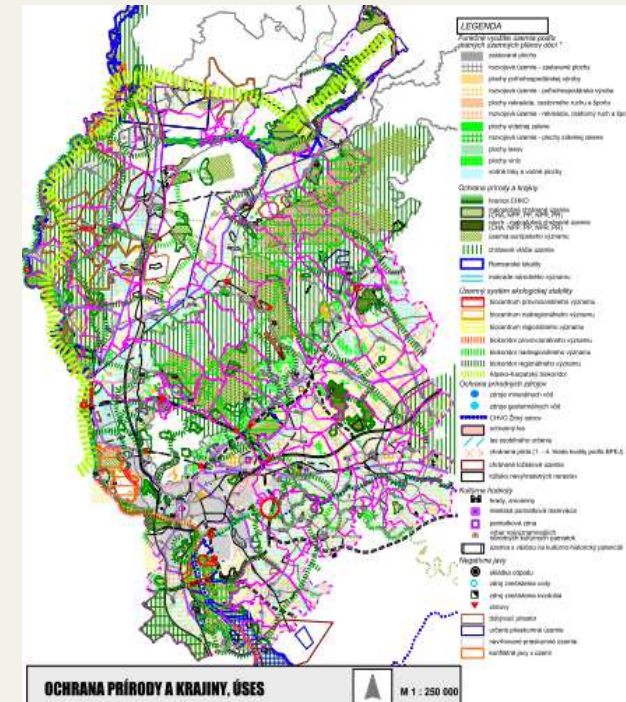
# Spatial planning – AKK project

## Integration

- into regional development plans
- into local land use planning
- national development, management and funding concepts (e.g. Danube Strategy)

## Consideration

- Strategic Environmental Assessments (SEA)
- Environmental Impact Assessments (EIA)







## Lessons learnt – AKK project

- + Strong network of partners is important
- + Matching interests (spatial planning, traffic infrastructure, conservation)
- + Clear message is needed
- Corridor delineation (accuracy, long preparation)
- Lack of communication of authorities to stakeholders although information was available
- Different focus areas of regulations - corridor





## Lessons learnt from navigation planning

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1. Cultural divide – between ministries, sectors
2. Low capacity of authorities for good planning and project supervision
3. Low capacity for quality stakeholder involvement
4. Mistakes throughout the planning cascades
5. Lack of knowledge of EIA, SEA, AA, ESPOO
6. Lack of accessible and available ecological data
7. Lack of political will – arguments why biodiversity is important
8. Lack of awareness of ecosystems service values



# Project idea based on

- PA6 – To preserve biodiversity, landscapes and the quality of air and soils
- PA1b – To improve mobility and intermodality – rail, road and air
- PA10 – To step up institutional capacity and cooperation

**Scope: Danube Basin with focus on the Carpathians**



## Objectives of the project

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To identify, spell out and address maintenance and restoration needs of critical ecological corridors based on

- Scientific knowledge
- Integrated planning approach
- Involvement of stakeholders
- Legal obligations

Endorsed by relevant authorities and stakeholders.





## Activities of the project

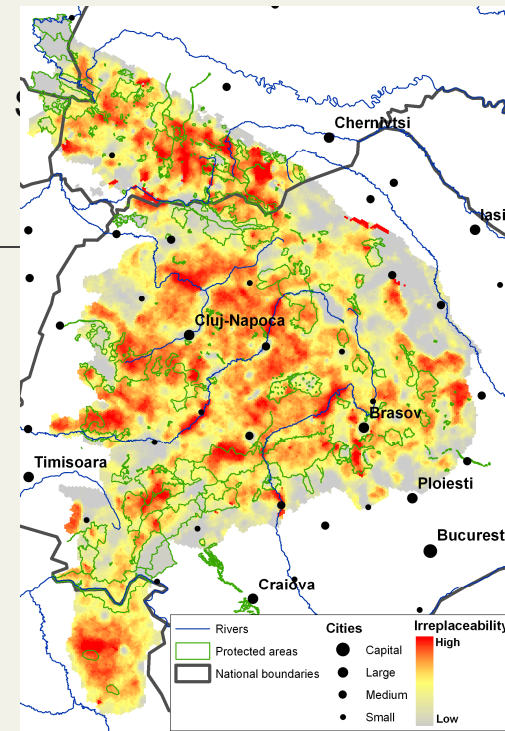
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- 1) Identifying critical ecological corridors across the Danube Basin (focus on Carpathians and other mountain ranges);
- 2) Developing in participatory way management recommendations, strategies and action plans to secure and/or restore especially critical areas & advocating them;
- 3) Identifying and developing guidelines & best practice for securing corridors and reducing conflicts between economic (transport infrastructure) development and nature conservation;
- 4) Mitigating environmental impact through integrated participatory planning and implementation in some pilots



## Outputs of the project

- Maps for critical corridors in Danube Basin and in more detail for selected hot spot areas; overlay of critical ecosystems/corridors, planned infrastructure, and spatial plans
- Best practice guidance for road and infrastructure planning and construction addressing conflicts between sectors
- Implementation of at least 10 management measures in 3 selected hot spot areas with involvement of stakeholders





## Impact of the project

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Capacity of authorities and civil society players strengthened to maintain and even enhance connectivity between protected areas / Natura 2000 sites under infrastructure development pressures.



## Target groups

- Ministries for the Environment
- Ministries for Regional Development / Transport
- Regional authorities responsible for regional development, spatial planning and environment
- Forest administrators
- Wildlife managers, farmers, hunters
- Protected area managers
- Local communities / civil society organizations
- Road constructors
- Transport infrastructure administrators etc.







# Thank you

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[www.panda.org/dcpo](http://www.panda.org/dcpo)

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## Confirmed partners

Presentation title can go here  
Secondary text can run underneath



- UNEP Interim Secretariat of the Carpathian Convention and Carpathian Network of Protected Areas



- Ministry for the Environment of the Slovak Republic



- State Nature Conservancy of the Slovak Republic



- EURAC Bolzano, Italy

- WWF Danube-Carpathian Programme



**Further partners:** WWF-GE, WWF-PL, WWF-HU, ASFINAG, EEA, IENE, Danube Civil Society, Ministries for Transport and Infrastructure Development etc.



It is important to act now!

It is important to act in a concert involving all players to overcome conflicts of economic development and nature conservation and to work towards solutions that are compatible with nature conservation goals.

For the sake of people living in the Danube Basin!