

# *Does Lithuanian transport policy threaten natural habitats?*

*Ausra Svarpliene  
Transport and Road Research Institute*

# *Infrastructural development*

- ❖ Infrastructural development, fragmentation of natural areas and pollution are among the most important and well-known threats to natural habitats throughout Europe, leading to a decrease in the local population sizes of many species.

# *International roads*

## ❖ 6 European highways cross our country:

- E67 VIA BALTICA (Helsinki–Tallinn–Riga–Panevezys–Kaunas–Warsaw–Wroclaw–Prague)
- E28 (Berlin–Gdansk–Kaliningrad–Marijampole–Prienai–Vilnius–Minsk)
- E77 (Pskov–Riga–Siauliai–Kaliningrad–Warsaw–Krakow–Budapest)
- E85 (Klaipeda–Kaunas–Vilnius–Lida–Cernovcy–Bucharest–Alexandroupoli)
- E262 (Kaunas–Utena–Daugavpils–Rezekne–Ostrov)
- E272 (Klaipeda–Palanga–Siauliai–Panevezys–Vilnius).



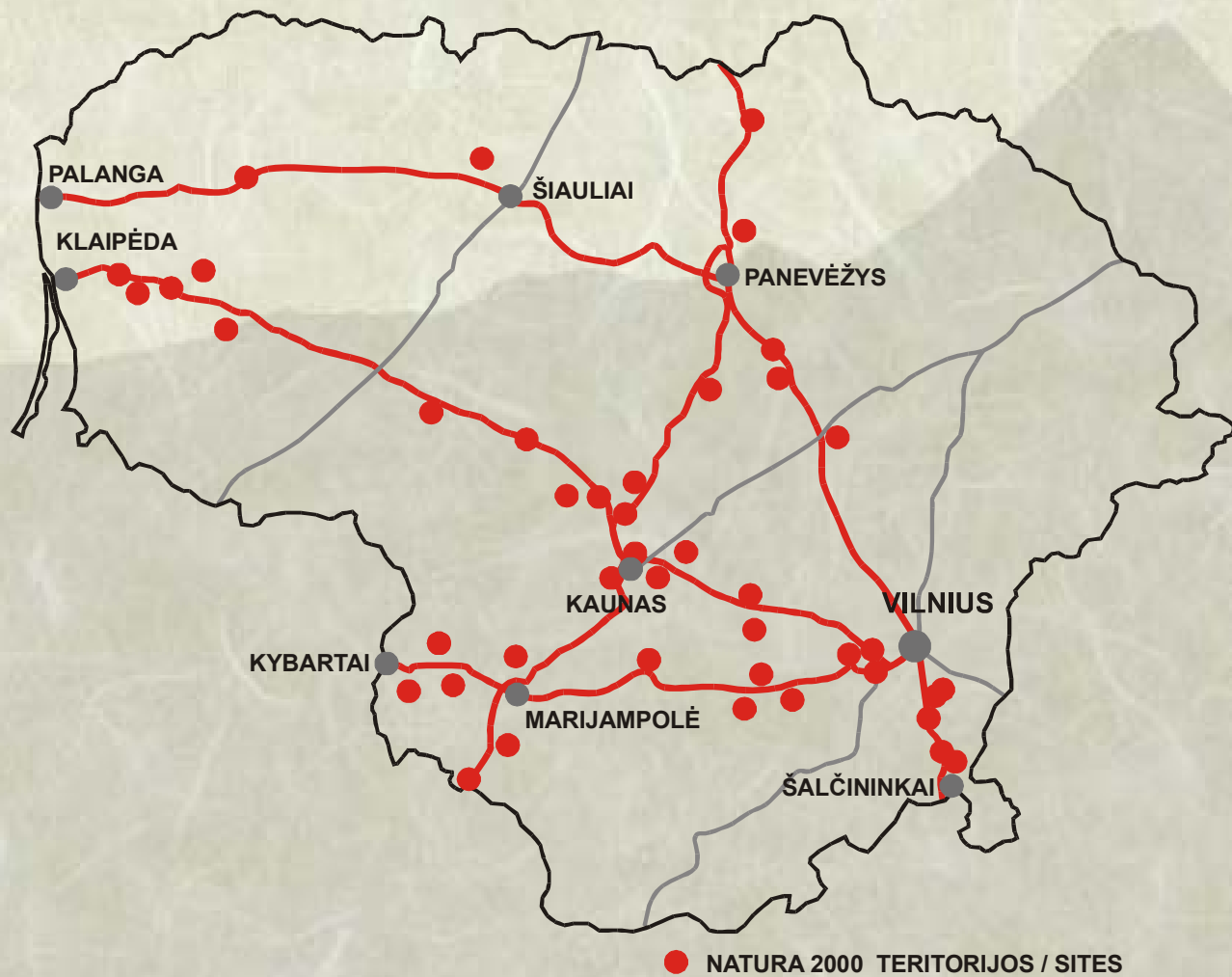


# *Development of transport corridors*

- ❖ Using EU funds, transport corridors have been developed in Lithuania since 2000. The objective of the development of the road corridors is to meet criteria of EU for the development of road infrastructure, to ensure a fast and effective road communication.

# *Development of transport corridors*

- ❖ The analysed international corridor VIA BALTICA, which length is 274 km crosses or passes by 9 preliminary NATURA 2000 territories and 1 potential territory.
- ❖ E272 road (length 359 km) crosses or passes by 12 preliminary NATURA 2000 territories and 3 potential territories.



# *Development of transport corridors*

- ❖ The following reconstruction works are planned to be carried out in road corridors:
  - widening of different road sections, pavement strengthening, repair of bridges, construction of pedestrian and bicycle tracks.



# *Documentation*

- ❖ The financing document for EU funds application comprises Economical and Environmental assessment. The EA reports are prepared using Methodological guidance on the provision of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. The report has to fulfil two main tasks:
  1. to assess significance of impacts on NATURA 2000;
  2. to propose plan of mitigation measures.

# *Legal documents*

- ❖ The Law on the Protected Territories of the Republic of Lithuania;
- ❖ The selection criteria of SPAs (special protection areas classified under the “Birds” directive) and SAC (special areas of conservation under the “Habitats” directive);
- ❖ Legalization and the status of the important bird and habitat areas are regulated by the Law on the Protected Territories of the Republic of Lithuania and the General Regulations for the Habitats and Important Bird Areas.

# *Legal documents*

- ❖ Up to now the list of the potential 57 Natural Habitats Areas and 37 Important Bird Areas is approved by the Governmental Decision. It is not the final list and it will be amended with new potential areas during May. Its is planned to amend it with 100-150 pSAC and with pSPA 10-20.

# *Invertebrates, reptiles and amphibians*

## Surveys

- ❖ On the roadsides, especially in forest areas, the variety of plants increases, the blossoming plants is the source of nectar, creating additional nutrient conditions for butterflies, beetles, hymenoptera . Besides, some plants are the nutrient object for their caterpillars and larvae. Road slopes, especially on the southern and sunny side, concentrate a lot of insects, which feed and grow.
- ❖ For many invertebrates road creates the effect of traction. At night they are attracted by vehicle lights, pavement colour and temperature. Roads, crossing forests, are used by a variety of insects for local migration (dragon-flies, butterflies, beetles).

# *Invertebrates, reptiles and amphibians*

## Impacts

- ❖ Biological balance could be disturbed, typical plants and the related insects could be destroyed;
- ❖ Pollution;
- ❖ Amphibian mortality during spawning migration and when the younger animals.



# *Invertebrates, reptiles and amphibians*

## Mitigation

- ⑩ Roadside mowing works shall be carried out in autumn (September-October) after blossoming of plants;
- ⑩ It is not recommended to build forest entrance roads within the protected territories, to erect parking lots for building machines during road reconstruction and parking lots as a whole;
- ⑩ Run water cleaning;
- ⑩ Barriers and underground passages for amphibia.

# *Natural habitats, included into the Annex I and the species of Annex II*

## Surveys

- ❖ The following areas included into the Annex I to the Directive on Natural Habitats were selected in the zones of developed roads:
- ❖ • areas designated to protect pastures, overgrown with a forest - 9070 Tree-overgrown pastures;
- ❖ • areas designated to protect grasslands - 3260 River rapids with croak communities; 6450 Alluvial grasslands; 6510 Mowed-down mezophyte grasslands;
- ❖ • areas designated to protect forests 9010 Western taiga; 9050 Grassy pine forests ; 91E0 Alluvial forests;
- ❖ • 3140 lakes with verticil algae communities.

# *Natural habitats, included into the Annex I and the species of Annex II*

## Impacts

- ❖ • Physical water and environmental pollution (getting of pollutants – heavy metals, salts, etc. - into water and meadow habitats);
- Change in a hydrological regime;
- ❖ • Dispersion of invasive plant species (weeds, transported together with soil, may contain the potentially invasive diaspores, that could get into the territory).

# *Natural habitats, included into the Annex I and the species of Annex II*

## Mitigation

- ❖ • Not develop roadside infrastructure, additional entry roads to the territory of the habitat;
- ❖ • Water from roadside ditches should not be discharged into the river valley grasslands. It must be collected and diverted by channels into sedimentation wells;
- ❖ • To use the mixes of local cereal plants for roadbed planting. If a fresh soil is brought for the arrangement of roadbed slopes, it is suggested to 2-3 times per season mow the annual weeds, thus preventing the distribution of invasive plants;
- ❖ • No deepening of roadbed ditch (up to the level, which could lower a ground water horizon in the surrounding territories);

# IMPORTANT BIRD AREA

- ❖ The territories have been selected for the conservation of populations of:
- ❖ • *Aquila pomarina* and *Dendrocopos medius* .
- ❖ • An important woodpeckers population *D.leucotos*.
- ❖ • Hatching populations of *Aquila pomarina*, cranes (*Grus grus*), silver woodpeckers (*Picus canus*), *Dendrocopos medius* and *D.leucotos*.
- ❖ • Hatching populations of black storks (*Ciconia nigra*), perns (*Pernis apivorus*).
- ❖ • A population of international importance - passerine owls (*Glaucidium passerinum*).
- ❖ • Hatching populations of *Porzana parva*. *Circus pygargus*, *Crex crex*, *Porzana porzana* and *Lanius collurio*



# *IMPORTANT BIRD AREA*

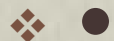
## Impacts

- ❖ ● Pollution of hydrological system and changes in its hydrographical properties;
- ❖ ● With the increase in transport volume a negative road impact on hatching populations of becoming extinct bird species could increase (killed, disturbance).

# *IMPORTANT BIRD AREA*

## Mitigation

- ❖ ● To reduce traffic speed up to 80 km/h;
- ❖ ● To close small roads (or to restrict the traffic), leading from the road to the adjacent forest territories;
- ❖ ● To prohibit the stop of vehicles where forest areas come closer than 100 m to the road;
- ❖ ● Additional parking lots should not be erected;
- ❖ ● To ensure that during road reconstruction the current hydrological regime of the territory would not be damaged and pollutants would not get into roadside water bodies.



# *General requirements for all the areas*

- ❖ No development of road service infrastructure shall be implemented within the limits of the potential Natura 2000 areas and in their close proximity (closer than 1 km distance); no parking lots shall be arranged on the road sections, where the potential Natura 2000 areas are situated closer than 500 m.

# CONCLUSION

- ❖ The assessments showed that there will be no adverse effects on the integrity of NATURA 2000 due to the development of the road corridors in Lithuania;
- ❖ Some mitigation measures are suggested which could improve the existing situation and mitigate impacts after the reconstruction;
- ❖ The question is how the authority responsible for management of state roads (Lithuanian Road Administration) take into consideration suggestions from nature conservation authority and EA performer;
- ❖ The monitoring plan also could be helpful to guarantee the sustained protection of NATURA 2000 sites for the species of animals, plants and natural habitats.

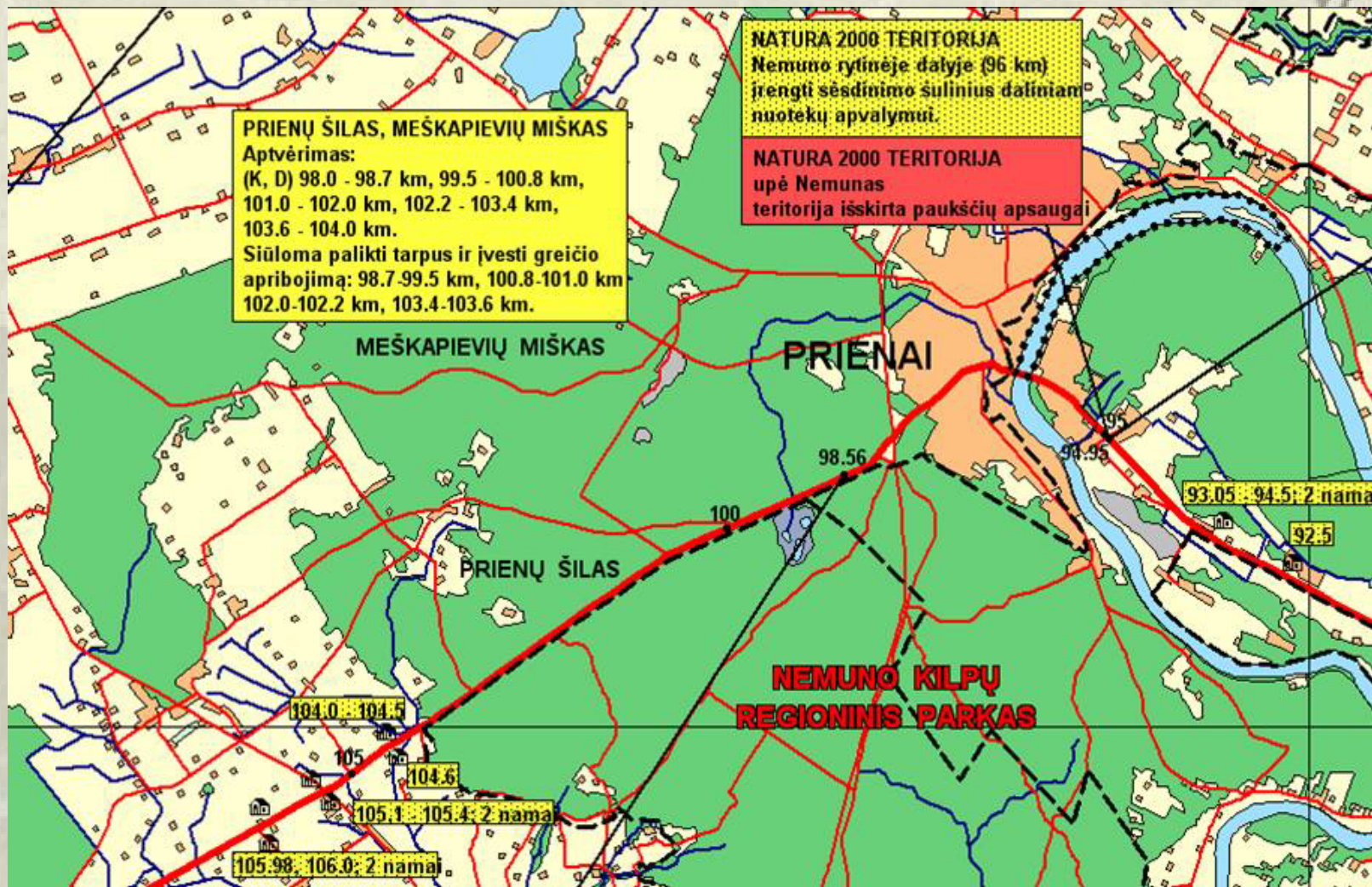
# ***PUBLIC INFORMATION***

- ❖ The public was informed about road development via Internet, press and individually.
- ❖ The Internet site <http://www.tkti.lt/~environment/eapask.html> gives a short information on road development and environmental impact analysis.



# ***PUBLIC INFORMATION***

- ❖ In daily “LIETUVOS RYTAS” (Lithuanian morning) the information about the development of road corridors and its possible impact on NATURE 2000 was published. We invited the members of society to express their opinion about the impact of roads on the adjacent natural areas.





# *Fencing*



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# *Water cleaning in VIA BALTICA*

