

Introduction to SEA, part I

Online awareness raising workshop on Strategic Environmental Assessment (SEA) in Tajikistan .

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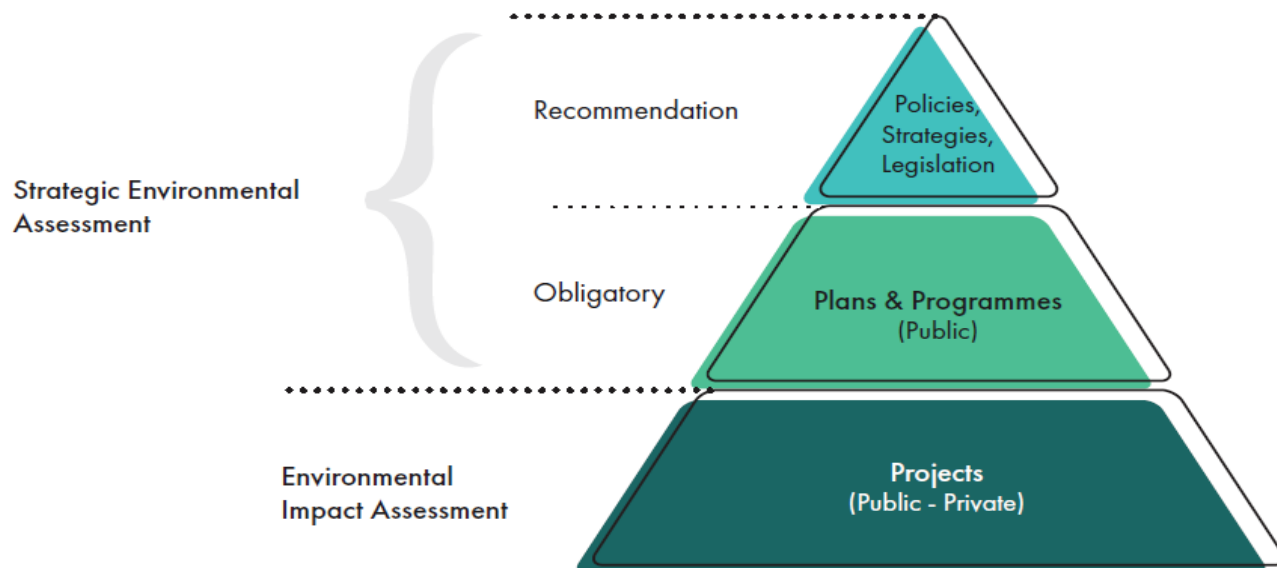
What is SEA

- Strategic Environmental Assessment (SEA) is a tool to integrate environmental and health considerations into plans, programmes as well as to policies and legislation alongside the economic and social considerations



What is SEA

- According to UNECE Protocol on SEA (art. 2, para. 6), SEA means ‘the **evaluation of the likely environmental, including health, effects**, which comprises the determination of the **scope of an environmental report and its preparation**, the carrying-out of **public participation and consultations**, and the **taking into account** of the environmental report and the results of the public participation and consultations in a plan or programme’



Objectives of SEA

- Inform the planning and decision-making processes by
 - Robust assessment of the likely environmental and health effects, and
 - Formulating relevant measures to avoid or minimize the likely adverse effects and to enhance the likely positive effects
- Enable consultations with governmental agencies as well as public in the preparation of plans and programmes, including, if relevant, a transboundary aspect;
- Ensure that the results of assessment and debate are taken into account when adopting and implementing the plans and programmes

Benefits of SEA

- **Provides for a high level of environmental and health protection:** ensures that environmental and health implications of strategic decisions are considered and addressed before decisions are taken
- Promotes a wide range of sustainability priorities and issues (climate change, energy transition, etc.) and this **contributes to achieving SDGs**
- **Reduces investment risks** by providing ‘early warning’ and thus increases stability of investments and streamlines economic development and green growth
- Application of SEA may also be required by the International Financial Institutions
- **Saves time and costs:** helps to prevent costly mistakes and reduced the timeframes for project approval

Benefits of SEA

- **Increases the efficiency of decision-making** and strengthens governance by making planning and decision-making more participatory and transparent
- Addresses **potential conflicts between various economic sectors**
- Enhances **transboundary cooperation**

Main principles of effective SEA application

SEA should

- Be undertaken by the authority responsible for planning
- Be applied as early as possible in planning and linked to the planning process – this requires communication between planning and SEA teams/experts
- Focused on key environmental and health issues, which are relevant to a specific plan or programme
- Evaluate reasonable range of alternatives
- Provide opportunities for consultations with environmental and health authorities and for public participation

Main principles of effective SEA application

SEA should

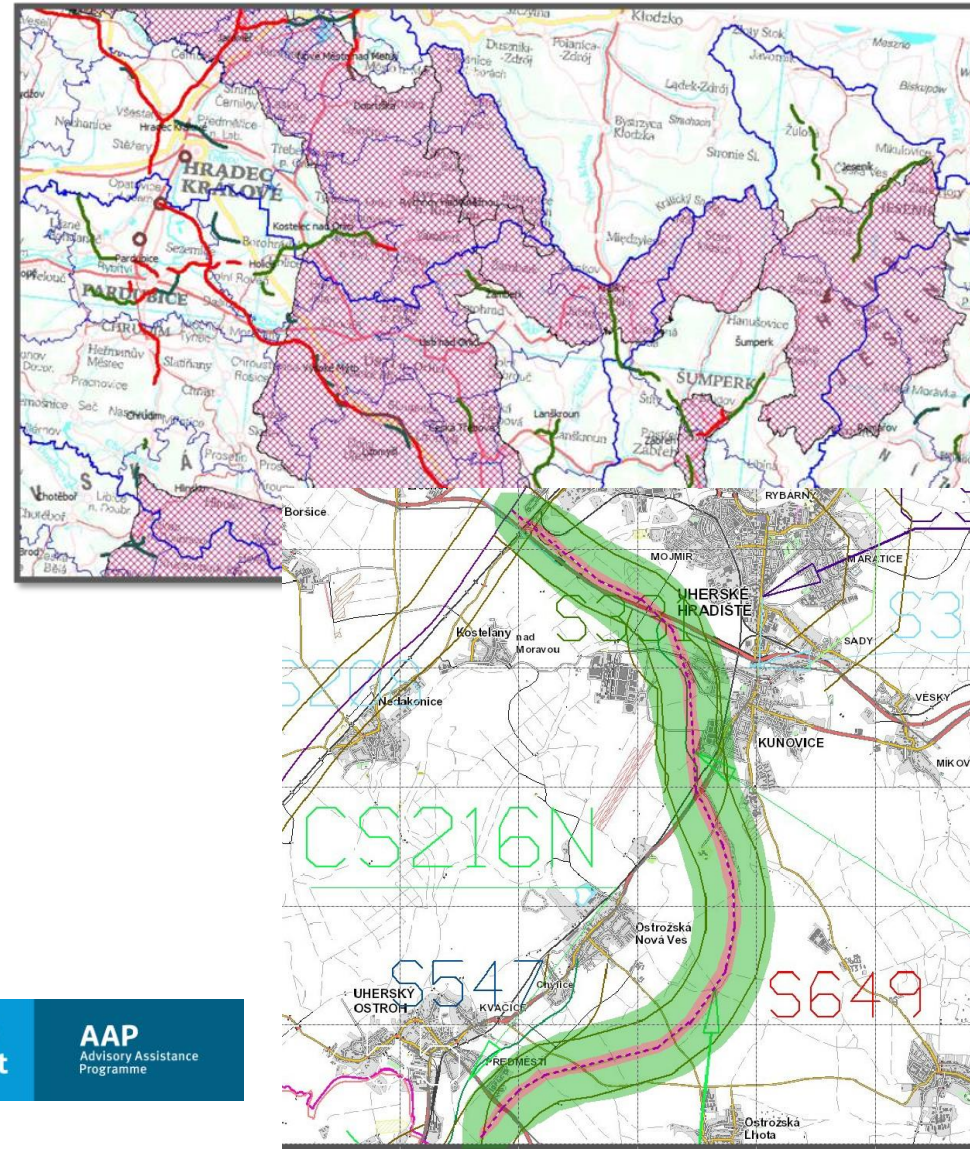
- Be adjusted to the strategic document assessed, considering its focus and structure, key features of the planning process including consultations with governmental agencies and other stakeholders, etc.
- Be carried out with appropriate, cost-effective methods & techniques of analyses

SEA and planning

- **Planning** analyses and proposes development interventions
- **SEA** examines individual outputs of the planning process and may propose any necessary amendments (mitigation measures)
- Optimally, SEA should be carried out in parallel with planning, when
 - The lead process is the planning process, and
 - SEA fits into the logic and steps of the planning process

SEA and EIA

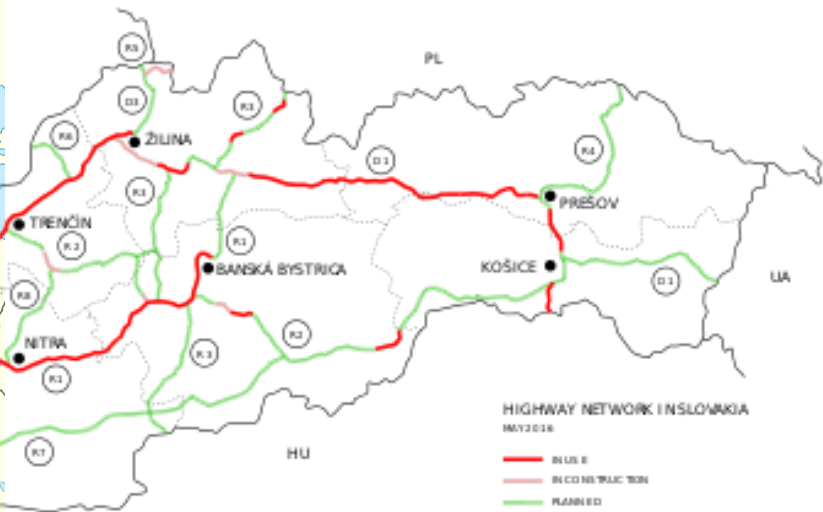
- SEA is not a mega-EIA, it should not duplicate EIAs
- SEA ideally covers strategic issues of concern that cannot be effectively addressed through project-level decision-making
- SEA can facilitate EIA by providing 'guidance' for the project level development



Case example

SEA OF THE NATIONAL TRANSPORT INFRASTRUCTURE DEVELOPMENT STRATEGIC PLAN UNTIL 2030, SLOVAKIA



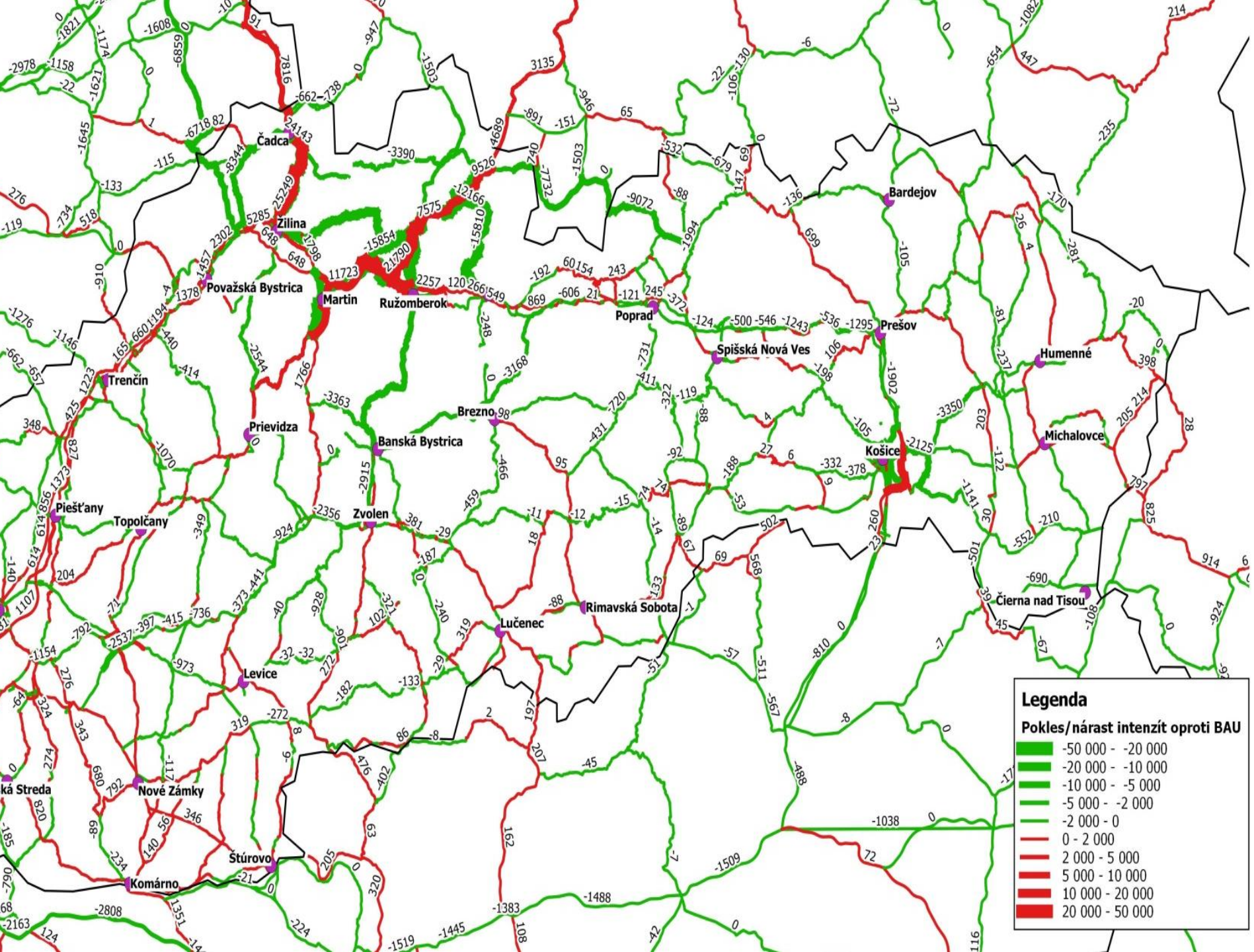


Purpose and content of the strategic plan

- Long-term planning document as a basis for EU co-funding of the transport projects
- Measures proposed for all transport modes
 - Roads
 - Railways
 - Air transport
 - Water transport
 - Public and non-motorized transport

Purpose and content of the strategic plan

- Road transport model: information on present and future traffic intensities on the road network and their changes in case implementing individual investments
- Outlined road and railway corridors (however not precisely spatially determined)



Legenda

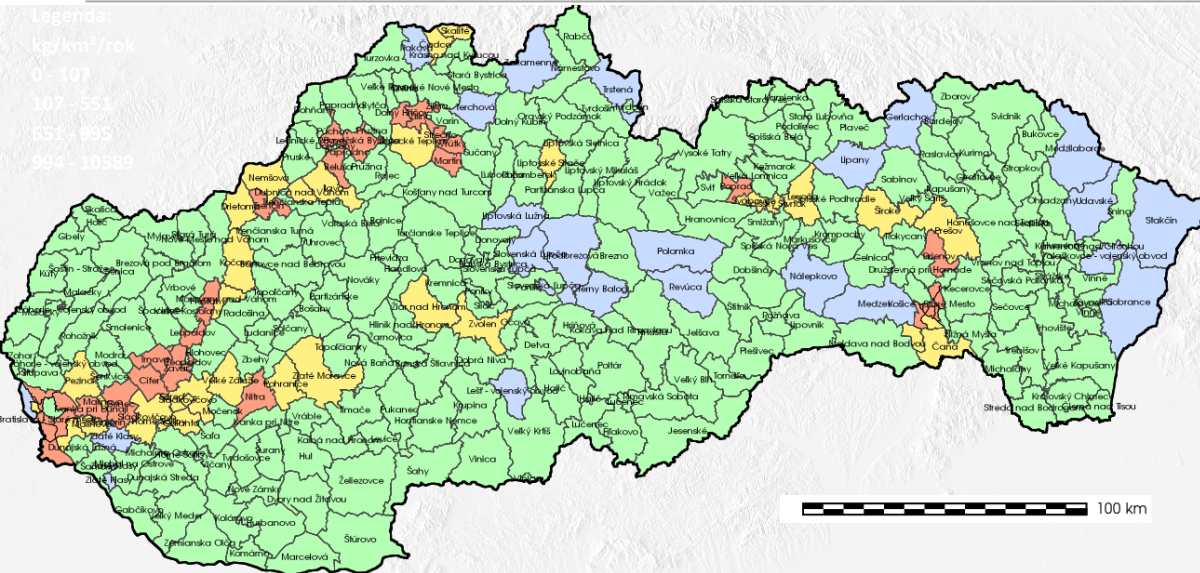
Pokles/nárast intenzit oproti BAU

- 50 000 - -20 000
- 20 000 - -10 000
- 10 000 - -5 000
- 5 000 - -2 000
- 2 000 - 0
- 0 - 2 000
- 2 000 - 5 000
- 5 000 - 10 000
- 10 000 - 20 000
- 20 000 - 50 000

Approach to SEA

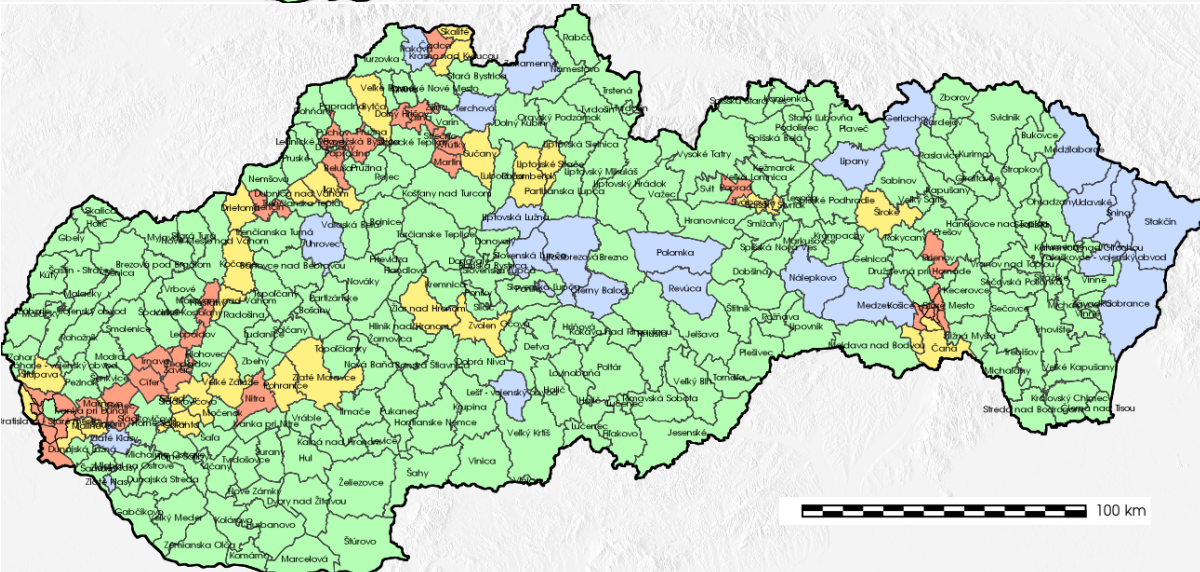
- **Quantitative analyses and modelling:** GHGs emissions, air quality, noise
- **Spatial analyses:** Air quality, noise, biodiversity and nature protection, climate change risks, cultural heritage
- **Qualitative assessment:** Socio-economic aspects (e.g. employment, livelihood, active lifestyle and related health issues), water resources, biodiversity and nature protection, cultural heritage

Example of analysis: air pollution

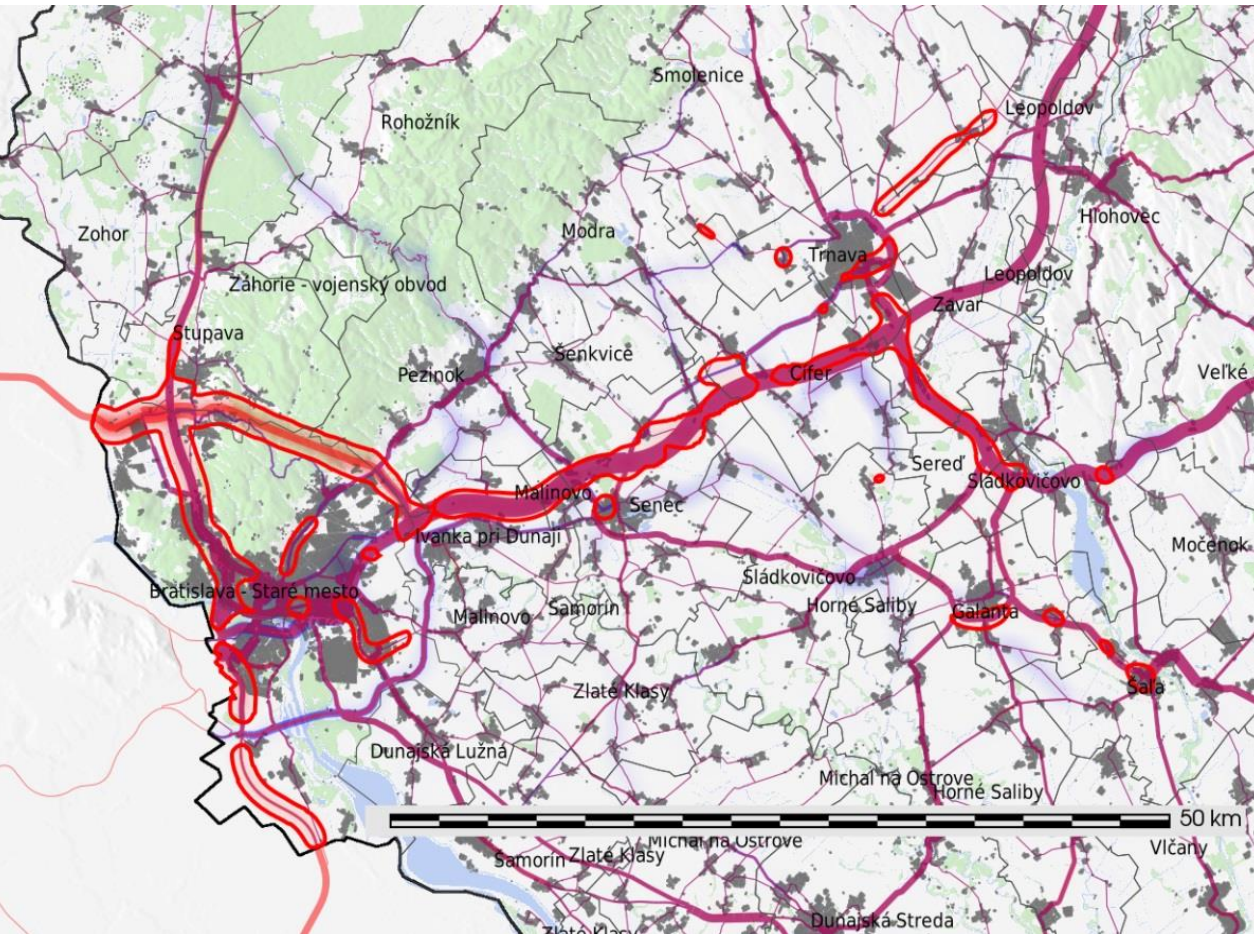


PM10 emissions in 2030

- Business as usual
- With measures



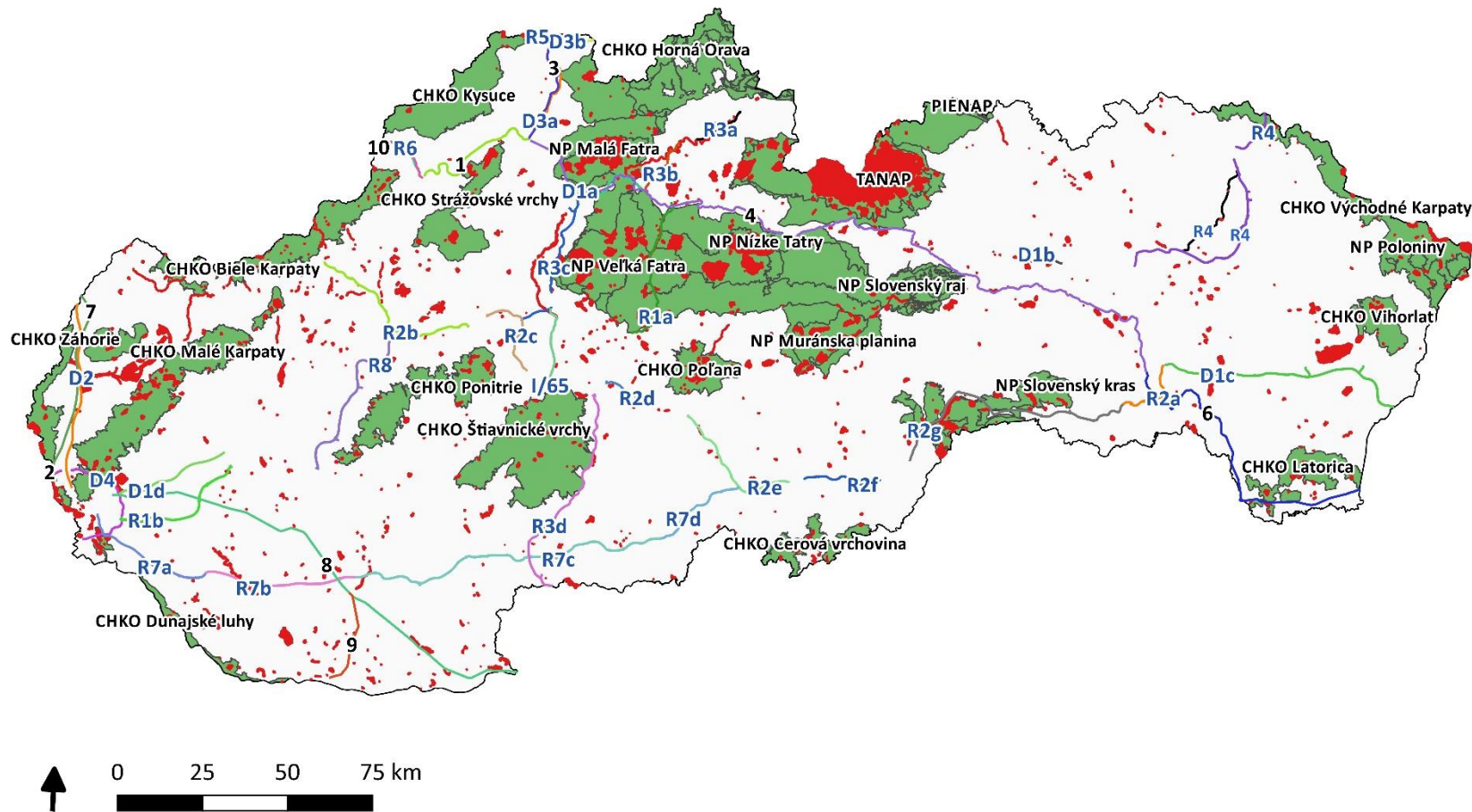
Example of analysis: air pollution



PM10 emissions:
detailed analysis of
critical area

Example of analysis: protected areas

Identifikácia potenciálnych konfliktov koridorov dopravnej infraštruktúry s chránenými územiaми



Zdroj dát: SOPSR (2016)
Zostavil: Integra Consulting s.r.o. (2016)

— Hodnotené dopravné koridory

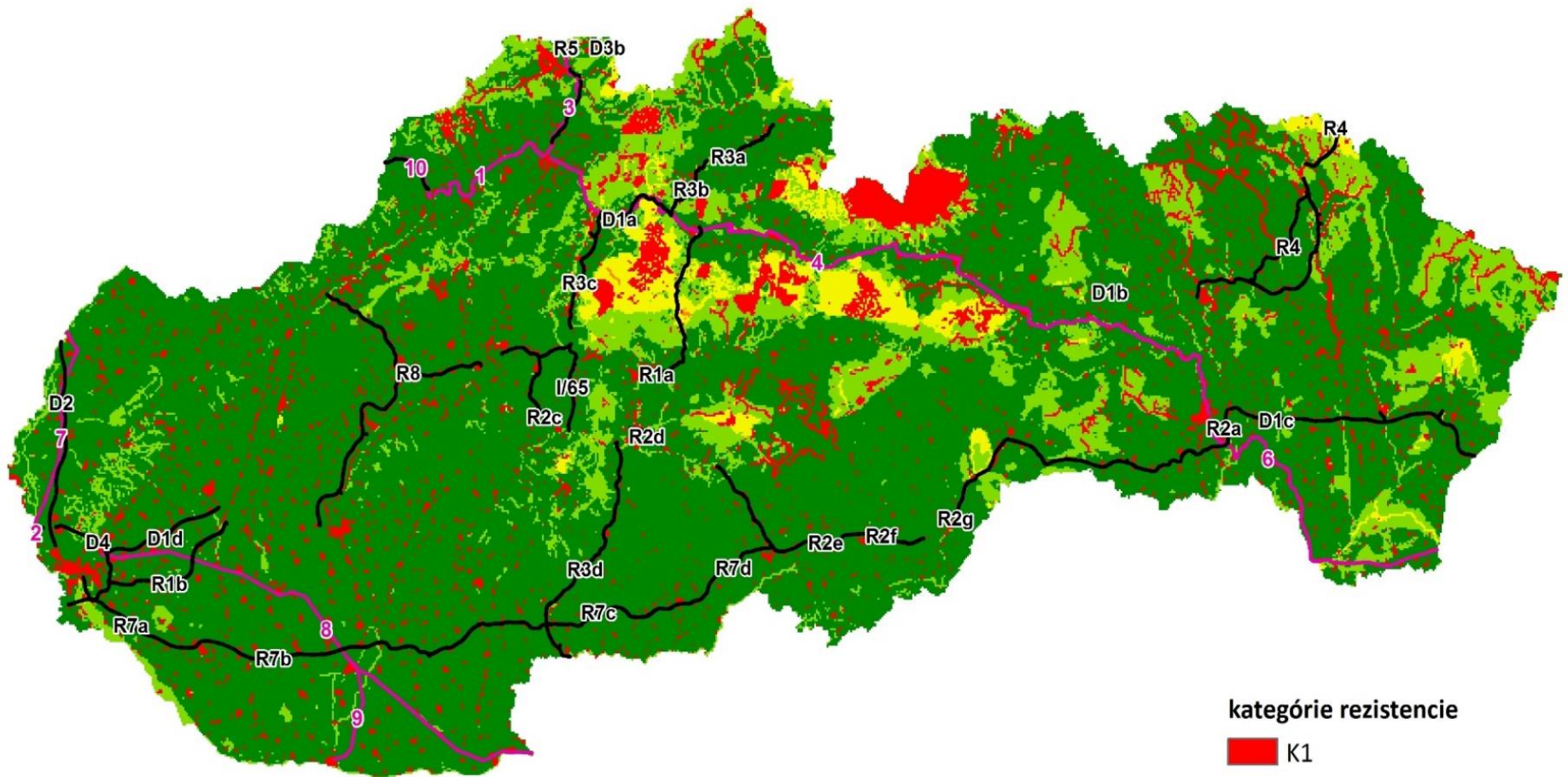
Veľkoplošné chránené územia
Maloplošné chránené územia

Example of analysis: protected areas

Initial GIS analysis followed by detailed description of likely affects in critical locations e.g.:

Section R7: Direct spatial conflict with two protected areas,

- Protected area 1: Proposed corridor will cause fragmentation of the areas, in cumulation with subsequent section likely significant adverse impacts
- Protected area 2: Depending on detailed routing significant impacts can be avoided



kategoríe rezistencie

- K1
- K2
- K3
- K4
- K5

- cestné koridory
- železničné koridory



Conclusions on likely effects

- Implementation of the Plan will increase emissions to the air, however mainly in less populated areas
- Plan in total it will increase GHGs emissions
- Likely overall positive effects to livelihood and human health with the risk of localized negative impacts in critical areas
- Likely negative effects on biodiversity, nature protection, and landscape – risk of cumulative impacts with other anthropogenic factors

SEA outputs

Strategic level

- Determination of the air pollution hot-spots, where air quality monitoring network should be reinforced
- Identification of potential problematic road sections, where alternatives with routing further from inhabited areas should be considered

Guidance for further development of transport infrastructure projects

- Identification of environmental risks
- Recommendations for project level assessment (EIA)
- Synthesis of spatial analysis provides a basis for prioritisation of transport infrastructure projects

Thank you for your attention!

