TRANSGREEN. Integrated Transport and Green Infrastructure Planning in the Danube-Carpathian Region for the Benefit of People and Nature

Spatial planning in Transgreen project

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Harmonisation of green and grey infrastructure development

• From analyzing and putting together to the integrated action = harmonizing focusing on mutual cumulative impacts of green and grey infrastructure

• It means:
  – Problem and demand identification
  – Development and analyze of solutions
  – Strategic planning and decision making
  – Implementation planning
  – Implementing incl. providing resources
  – Monitoring

• The only integrative framework for this process is offered by SPATIAL PLANNING

• Priorities: Avoidance – Mitigation – Compensation.

Project co-funded by the European Regional Development Fund (ERDF).

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INTEGRATIVE PLANNING OF FUAs

- Sectoral planning
- Sectoral planning
- Sectoral planning

Socio-economic strategic development planning

Landscape planning incl. management of ecosystems

Land-use planning incl. planning of ecosystem services

Executive management/implementation management

Designing/project development

Realisation (interventions, changes)

Spatial monitoring system and system of the information management

INTEGRATIVE FUA DEVELOPMENT MANAGEMENT
Harmonisation of green and grey infrastructure development

How to avoid or to minimize the conflicts and negative effects of the transport on the wildlife?

– to reflect the needs to protect the wildlife already in the initial strategic decision

– to include proper approaches, methods and instruments for minimizing the conflicts and negative effects in all planning phases

– to follow multidisciplinary and cross-disciplinary approach

– to work together (politicians, technicians, engineers, economists, landscape designers and environmentalist)

– to involve actively all stakeholders in each phase.
Common logic of steps in the linear transport infrastructure development as described in the TRANSGREEN Handbook

3 different modes of transport infrastructure development:

a. the development of new roads and railway lines or their parts
b. the update of existing roads and railways (modernising, extension in former corridors, increase of capacities, speed ...)
c. the improving ecological status of existing routes and railways

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Challenges in respective phases

SCOPING
• Realistic identification of current and estimation of future demand on transport performance, mirroring the development of the society and its economy
• Assessment of the potential to cover identified demand by existing transport infrastructure capacities and precondition for its efficient use
• Estimation of the threats and conflicts between existing transport infrastructure and wildlife and its sustainable development
• Estimation of the challenges resulting from future development in the context of global change and specific regional/local social, economic and environmental development.

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PLANNING PHASES

- **strategic planning** setting main goals, principles, parameters including principal placement,
- **detailed planning** including precision of the main features of the developed transport infrastructure following the frames defined at the level of strategic planning.

Two confronted elements for the process of harmonization in this phase:

A. **the intervention**: construction of the linear infrastructure with defined parameters deriving the effects on wild life in the phase of construction and operation

B. **the ecosystems of the countryside** which is going to be affected by the intervention with its specific features including the resilience (by localisa-tion/definition of the corridor of the road or railway).
Challenges in respective phases

PROJECTING/DESIGNING

- is crucial for **identification of optimal technical solutions**
- measures are focused on **lowering and mitigating the negative effects** of the construction and operation of linear transport infrastructure.
- **reflection of the statement of the SEA authority**
- the final phase of projecting has to react to the **requirements resulting from the EIA process play too**.
- the EIA process including **the public participation**
  (challenge of efficiency of multiple addressing the public)
Challenges in respective phases

IMPLEMENTATION/ CONSTRUCTION

• can affect **much broader area than the area of the road or railway line** itself.
• can discover **unexpected features of the environment requested the modification** of the technologies used event the changes in the location of the road or railway line
• **permanent monitoring** is important part already in this phase
Challenges in respective phases

OPERATION, MAINTENANCE AND MONITORING

- comprehensive monitoring and assessment is the precondition for objective assessment of the effects
- Monitoring can show unpredictable effects and is precondition for flexible reaction by proposing and implementing proper measures.
- Monitoring outputs should serve not only in relation to the assessment and optimizing of given road/railway line, but as well as a source of knowledge and experience for planning, projecting and designing of other transport infrastructure.
Recommendations

Strategic recommendations in relation to spatial planning

• to consider SPATIAL PLANNING as crucial instrument to prevent progressive isolation of wildlife populations consists of anchoring migration corridors in the relevant legislation and ensuring proper protection/management.

• to shield dedicated wilderness and road-less areas critical for wildlife dispersal from new infrastructure and settlement projects.

• to understood the measures for levering the conflicts as beneficial for nature, but also preventing human life.

• To include the information about future development in given areas into decision making, otherwise solutions that work today might become obsolete in the near future.
Recommendations

- Similarly, **predicted habitat changes** induced by climate change should be considered in integrated planning at landscape level.
- To take into consideration **national and international spatial development** strategies in the mitigation planning.
- Protection of delimited corridors in spatial plans is a fundamental task and a matter of **inter-sectoral cooperation, requiring legal procedures**. Where these are not in place yet, respective amendments should be considered.
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