Preparation of SEA report and its quality analysis

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Training Workshop on SEA in the Republic of Moldova

29 February 2024

Action implemented by:

Formal requirements of the SEA Report

- SEA Report contain the required information as per Appendix 2 of the Law 11/2017 on SEA

- Respecting the scope of the SEA defined within the Decision on determining the scope by the Competent Authority
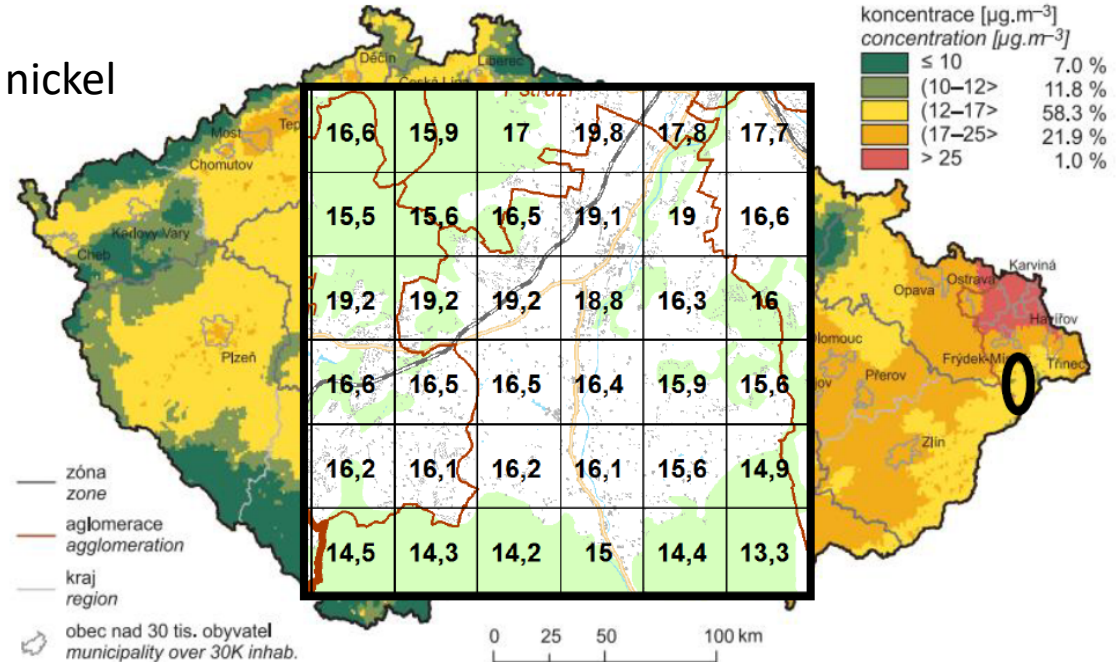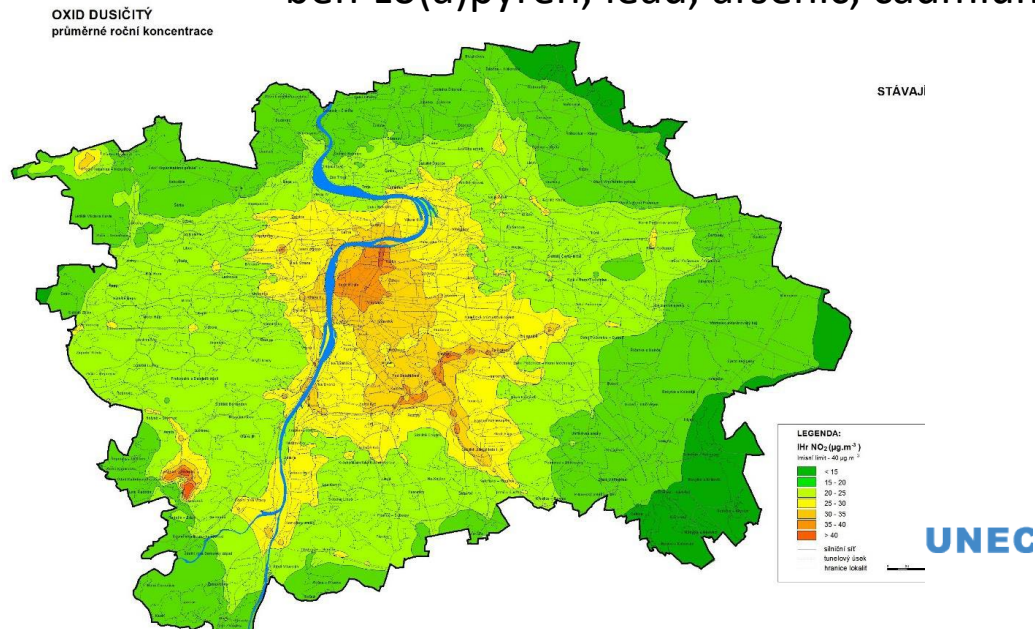
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Typical environmental issues: Air quality

- Areas with deteriorated air quality

- Number of settlements and population within areas with deteriorated air quality

- Spatial limit: 1km square where legal limits were exceeded within last five years

- Indicators:

  - SO2, NO2, PM10, PM2,5, CO, benzen,

  - ben-zo(a)pyren, lead, arsenic, cadmium, nickel

Obrázek 7: Pětiletý průměr ročních průměrných koncentrací PM$_{2,5}$; pro období 2014–2018
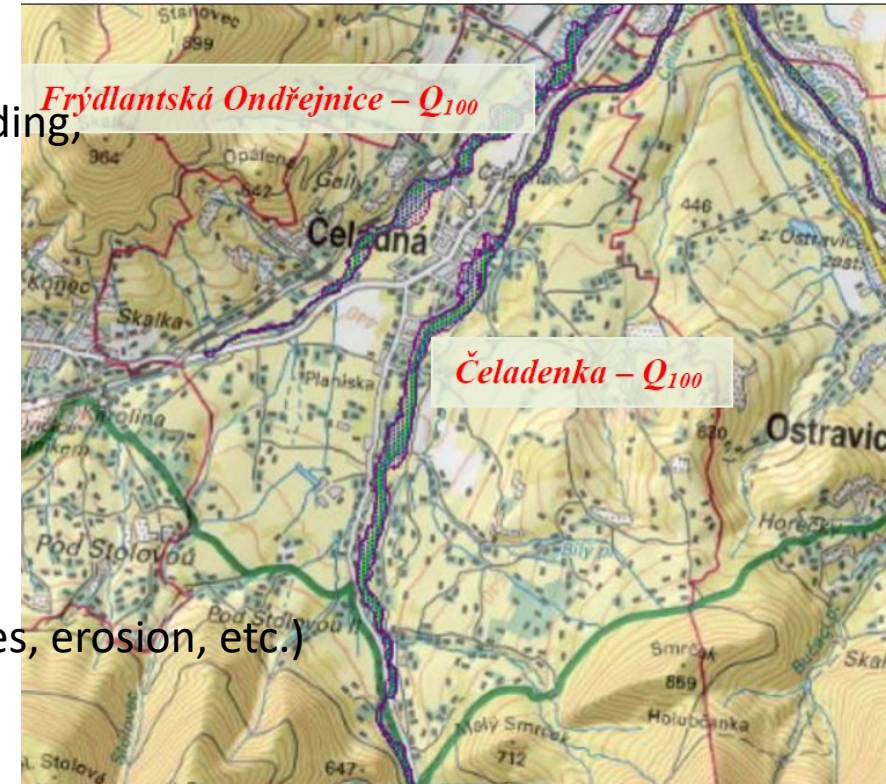

OXID DUSIČITÝ
průměrné roční koncentrace

koncentrace [µg.m^{-3}]
concentration [µg.m^{-3}]

concentration	%
≤ 10	7.0 %
(10–12>	11.8 %
(12–17>	58.3 %
(17–25>	21.9 %
> 25	1.0 %

zóna
zone

aglomerace
agglomeration

kraj
region

obec nad 30 tis. obyvatel
municipality over 30K inhab.

0   25   50   100 km

LEGENDA:
IHr NO$_2$ [µg.m^{-3}]
Imisní limit - 40 µg.m^{-3}

< 15
15 - 20
20 - 25
25 - 30
30 - 35
35 - 40
> 40

silniční síť
tunelový úsek
hranice lokalit

UNEC

![EU flag - Funded by the European Union] **EU**4**Environment**
Green Economy in Eastern Partner Countries

Typical Environmental Issues: Water

- Spatial categories:

  - Water resources, rivers, lakes etc. and their buffer zones

  - Flooding areas, flooding zones, designated zones for natural flooding,

  flood management objects

  - Natural water accumulation areas (regional-scale category)

  - Vulnerable areas (EU Nitrate Directive)

  - Mineral water resources

- Analyses:

  - Flow characteristic

  - Factors affecting natural flow (rapid discharge from paved surfaces, erosion, etc.)

  - Water pollution, pollution sources
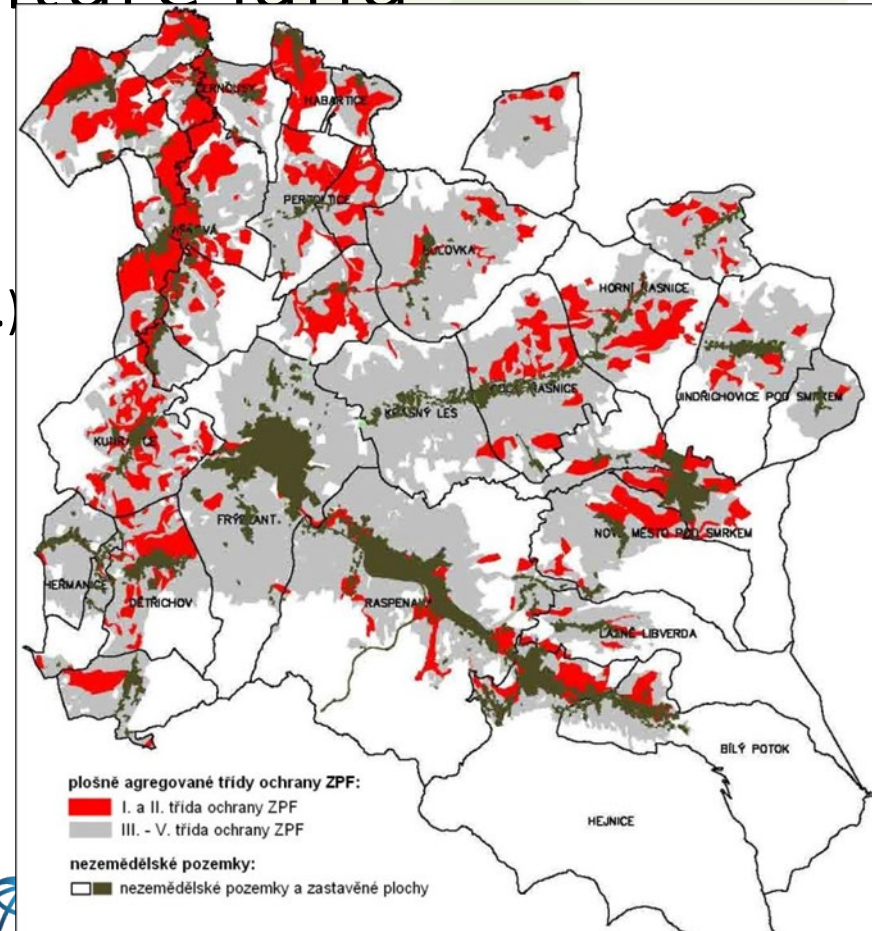
  - Resources use and balance

  - …

Frýdlantská Ondřejnice – Q$_{100}$

Čeladenka – Q$_{100}$

Action implemented by:

OECD — BETTER POLICIES FOR BETTER LIVES | UNECE | UN environment programme | UNIDO | THE WORLD BANK — IBRD • IDA | WORLD BANK GROUP

Typical Environmental Issues: Agriculture land

- Spatial categories:

  - Arable land

  - Permanent grass cultures

  - Special agricultural cultures (orchards, vineyards, gardens…)

  - Soil quality categories

  - Soil affected by erosion

- Analyses:

  - Area change in different categories
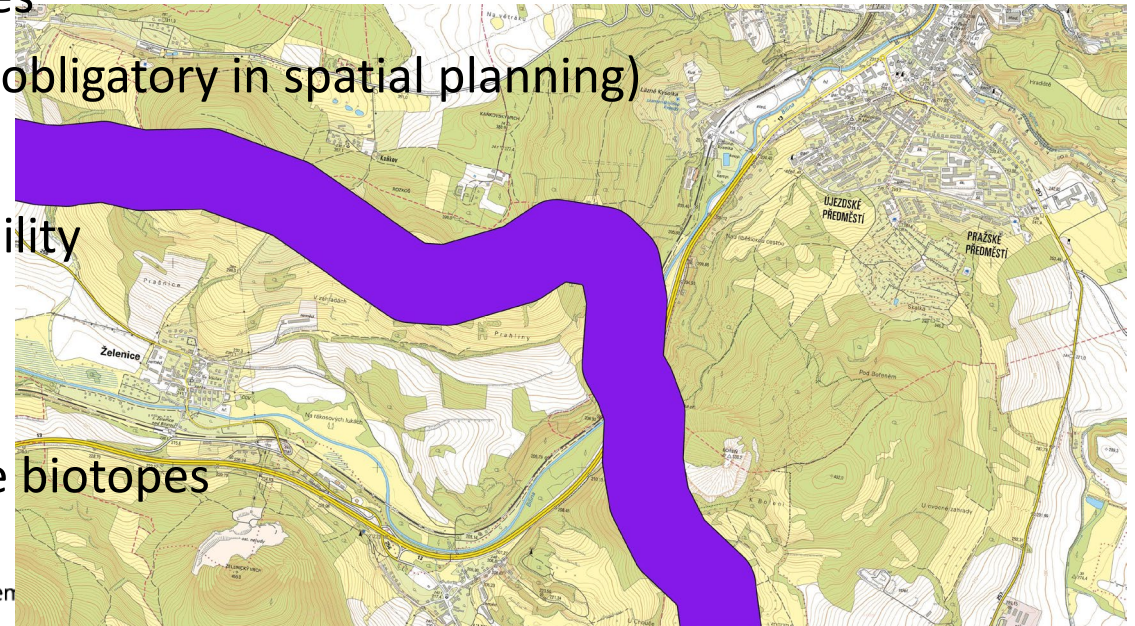
    - past trend and

    - proposed changes

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Typical Environmental Issues: Biodiversity

- Spatial categories:

  - Formally protected areas (multiple categories)

  - Localities with occurrence of protected species

  - Spatial system of ecological stability (defined obligatory in spatial planning)

- Analyses:

  - Status of the Spatial system of ecological stability

    (formal delineation vs actual functionality vs

    newly proposed components)

  - Occurrence of protected species and valuable biotopes

  - Wildlife Migration corridors

Typical Environmental Issues: Landscape

- Spatial categories:

  - Formally protected areas

  - unique landscape, visual quality, distinctive natural or urbanistic features,…

- Analyses:

  - Spatial relations, aesthetical values

  - Important visual characteristics, viewpoint

  - Fragmentation of landscape (disturbance)
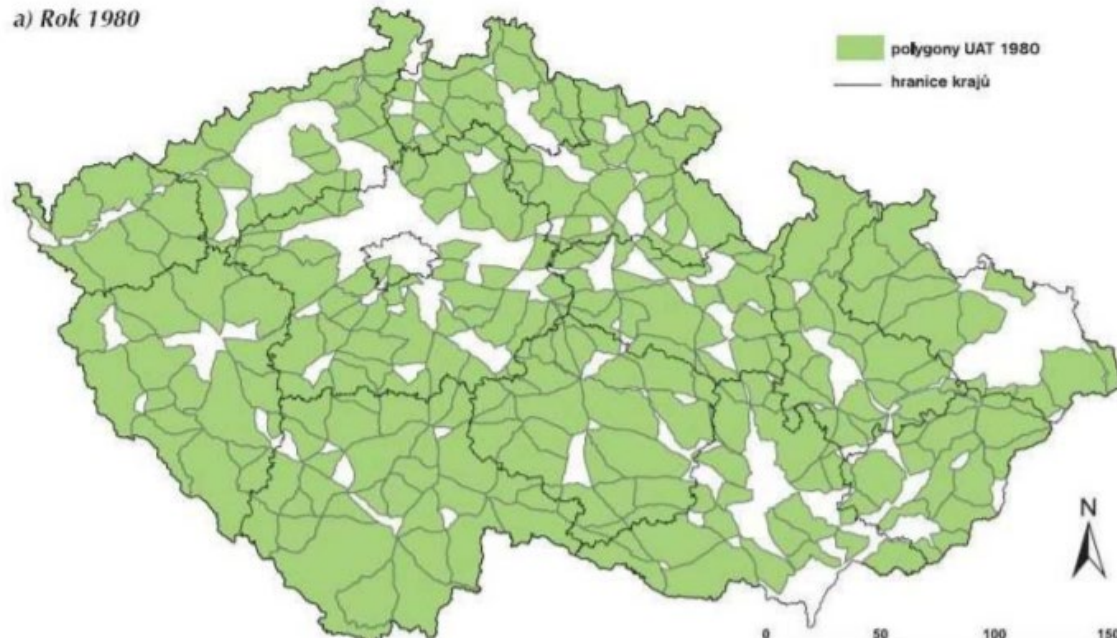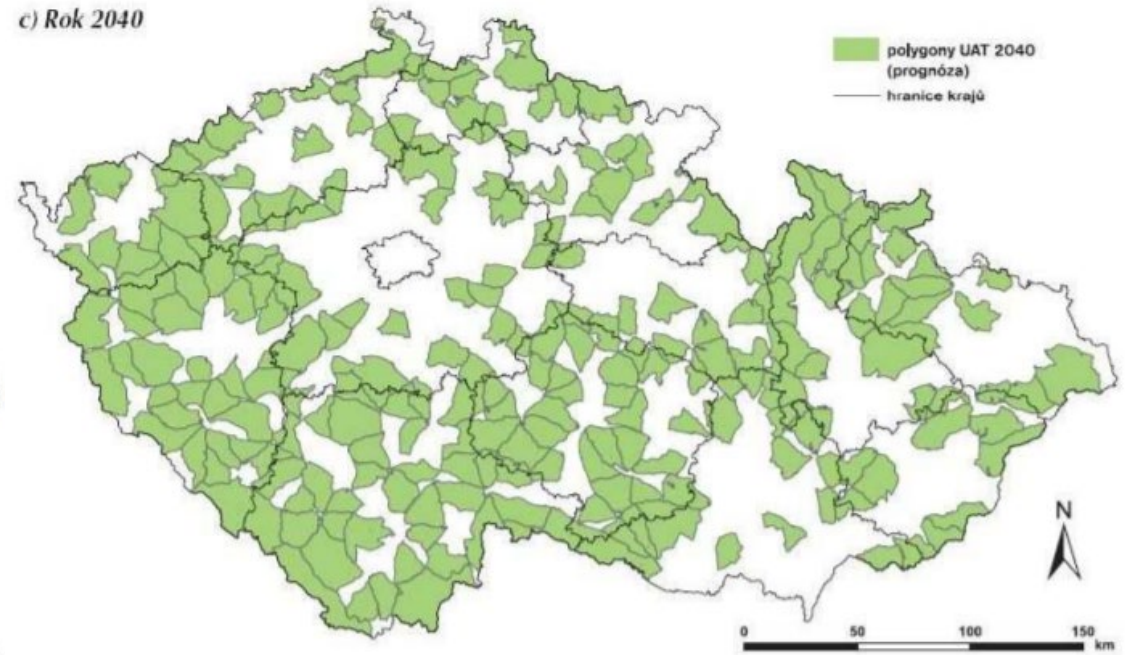
Typical Environmental Issues: Landscape (2)

- Fragmentation of landscape (disturbance)

- UAT method: unfragmented area with traffic

    - a) area not interrupted by roads with traffic intensity higher than 1000 vehicles/day or by railway with more than 1 track

    - b) the area is more or equal 100 km2

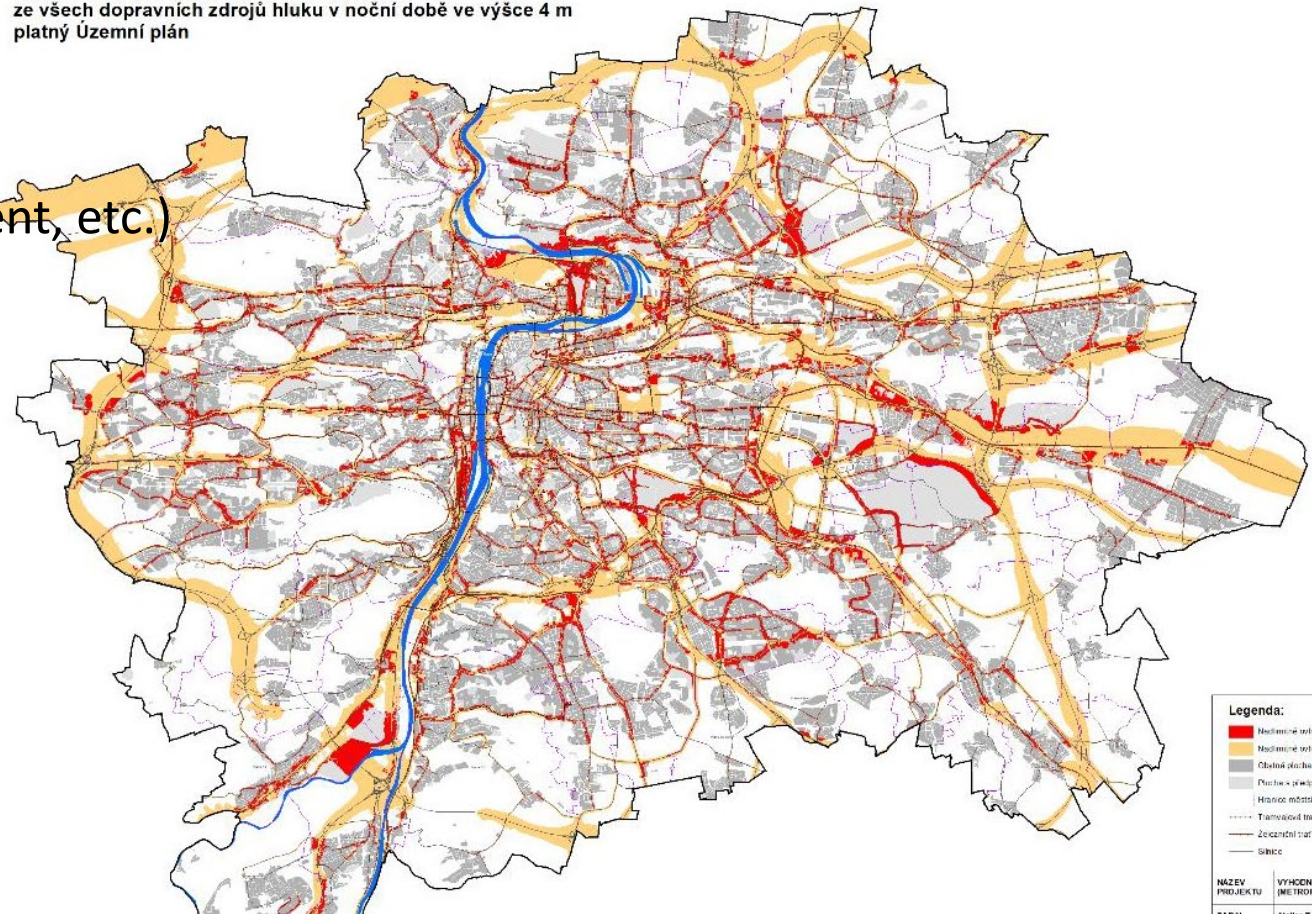# Typical Environmental Issues: Population

- Spatial categories:
  - Residential areas
  - Infrastructure (transport, technical, waste management, etc.)
  - Contaminated areas

- Analyses:
  - Noise pollution

CELKOVÁ AKUSTICKÁ SITUACE
včetně nadlimitně ovlivněných obytných ploch
ze všech dopravních zdrojů hluku v noční době ve výše 4 m
platný Územní plán

Akustická studie

Legenda:

Addressing cumulative effects

- **Cumulative effect** – aggregation of the same effects (e.g. nitrogen oxid) from numerous pollution sources (if projects evaluated in isolation, such effect could not be detected)
- **Synergic effect** – combination of different effects (e.g. different pollutants) creates a qualitatively different pressure on the receiving environmental component

- Typical cumulative effects:
  - Land uptake
  - Multiple pollution sources (emissions to air, water,...)
  - Fragmentation of biotopes
  - ...?
- Problem is lack of standards/quantified objectives/thresholds
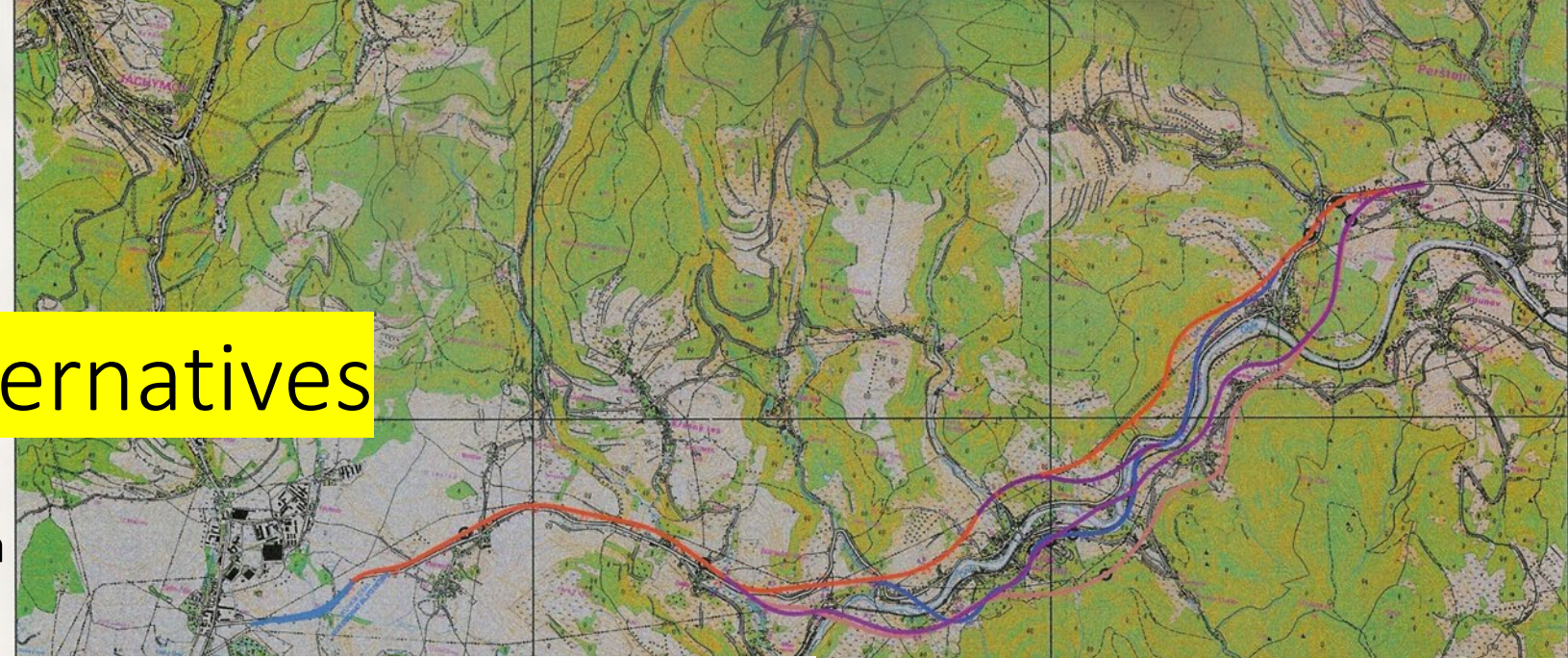
Action implemented by:

Comparison of Alternatives

- Multi-criterial comparison
- Selection of relevant criteria

UKÁZKA – KATALOG PARAMETRŮ POUŽITÝ PŘI HODNOCENÍ VLIVŮ VARIANT ZÚR JMK

Skupina kritérií	Ozn. S_k	Váha S_k	Kritérium (K)	Ozn. K	Parametr (P)	Ozn. P	Jednot-ka	Váha V_p
Obyvatelstvo a ovzduší	A	26	Vlivy na obyvatelstvo	A1	Plocha zástavby ve vzdálenosti do 100 m od osy koridoru	A1-1	ha	7
					Plocha zástavby ve vzdálenosti do 500 m od osy koridoru	A1-2	ha	6
					Plocha zástavby ve vzdálenosti do 1 000 m od osy koridoru	A1-3	ha	5
					Plocha zástavby ve vzdálenosti do 2 000 m od osy koridoru	A1-4	ha	3
			Vlivy na emisní zátěž území	A2	Celková délka trasy záměru	A2-1	km	5
Příroda a krajina	B	23	Vlivy na zvláště chráněná území (ZCHÚ) a biosférické rezervace	B1	Podíl plochy koridoru spadající do CHKO (3 a 4.zóna) [1], biosférická rezervace (BR)	B1-1	%	5
					Podíl plochy maloplošných zvláště chráněných území (NPR, NPP, PR, PP) v ploše koridoru	B1-2	%	6
			Vlivy na flóru a faunu	B2	Podíl plochy lokality výskytu zvláště chráněných druhů národního významu v ploše koridoru	B2-1	%	5
			Vlivy na územní systém ekologické stability a ostatní plochy se zvýšeným stupněm ekologické stabilty [15]	B3	Podíl plochy nadregionálních a regionálních biocenter v ploše koridoru a ostatních ploch se zvýšeným stupněm ekologické stability	B3-1	%	3
					Podíl plochy nadregionálních a regionálních biokoridorů v ploše koridoru	B3-2	%	1
			Vlivy na krajinný ráz	B4	Podíl plochy přírodního parku a ostatních hodnotných segmentů krajiny v ploše koridoru	B4-1	%	3

Proposed mitigation measures (examples)

- To apply additional measures to decrease dust in the city – i.e. to clean the streets on a regular basis (twice a week)
- To implement measure to protect inhabitants from noise in the most affected areas (noise protection walls, better windows)
- To construct certain new roads only if not other transport option is available (to avoid effects to nature)
- Selection on alternatives for specific road sections based on likely impacts on human health (air, noise) and biodiversity

Action implemented by:

Analysis of the quality of the strategic environmental assessment report

- Guidelines on assessment of the Quality Control of Strategic Environmental Assessment (2023)

- Carried out by the <u>Panel of experts</u>, while taking into account:
  - a) decision on the determination of the scope of the strategic environmental assessment report;
  - b) comments and proposals of the public concerned;
  - c) compliance with the framework content of the strategic environmental assessment report, provided for in Annex no. 2, taking into account its fields of implementation;
  - d) formulation of technical, procedural and other difficulties and explanation of any uncertainties;
  - e) submission of studied alternatives and the reasons that were the basis for choosing one of them;
  - f) presentation of the graphic information: maps, figures and diagrams;
  - g) existence of an adequate program for monitoring the environmental effects of the policy and planning document;

Action implemented by:

Thank you for your attention!

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