

Application of SEA: Baseline Analysis

Michal Musil

Acknowledgement

Number of slides in this presentation is adapted from:

Dusík J., Smutný M., Harmel M. (2014): Guidance for undertaking SEA General methodological recommendations for practitioners (unpublished) – developed within EU-funded project 'Strengthening capacities for Strategic environmental assessment at regional and local level' implemented by EPTISA and DVOKUT ECRO d.o.o."

Purpose of the Baseline analysis

- present information on the state of the environment and natural resources relevant to the plan or programme;
 - describe interactions between these trends and the main development sectors which are the subject of the plan or programme;
 - outline the likely evolution of these trends without implementation of the plan or programme;
 - provide this information for the purpose of the planning process as well as for the SEA.
-
- It should result in baseline against which the potential effects of the development proposed by the physical plan will be evaluated in next stages of the assessment.

Scoping approach

- SEA team needs to present sound judgments on the ongoing environmental changes which are relevant to the plan.
- Very often, deficiencies in analyzing current situation and trends do not usually arise from the lack of data but rather from poorly targeted analyses that focus on irrelevant issues.
- It is important to **concentrate on the main environmental issues** that have been identified during the Scoping phase.
- The SEA practitioners need to **gather just enough information to answer key questions** related to the identified issues of interest.

Scoping approach

- The main challenge of the baseline assessment is to ensure that:
 - **it is focused** (i.e. it addresses key trends relevant to SEA and does not overburden assessment of the situation with irrelevant information);
 - describes **past and current trends**;
 - outlines **likely evolution** of those trends, should the proposed programming document not to be implemented.

Scoping approach – future trends

- The outline of the future trends is obviously constrained by **numerous uncertainties** (i.e. data available, economic developments, technological progress or advancements in regulatory frameworks that collectively influence future trends).
- SEA experts are only required to outline the future trends **as best as they can**, taking into account and acknowledging any available studies and considering:
 - past trends;
 - key driving forces behind these trends;
 - main uncertainties.

Scoping approach – data

- The data on the current and future trends may also **strengthen the analysis of the overall development context** during the elaboration of the plan
- Possible sources of information
 - Progress reports on existing legislation;
 - State of the environment reports;
 - Data from monitoring of relevant policies, strategies, plans or programmes on national, regional or local levels;
 - Special research projects.

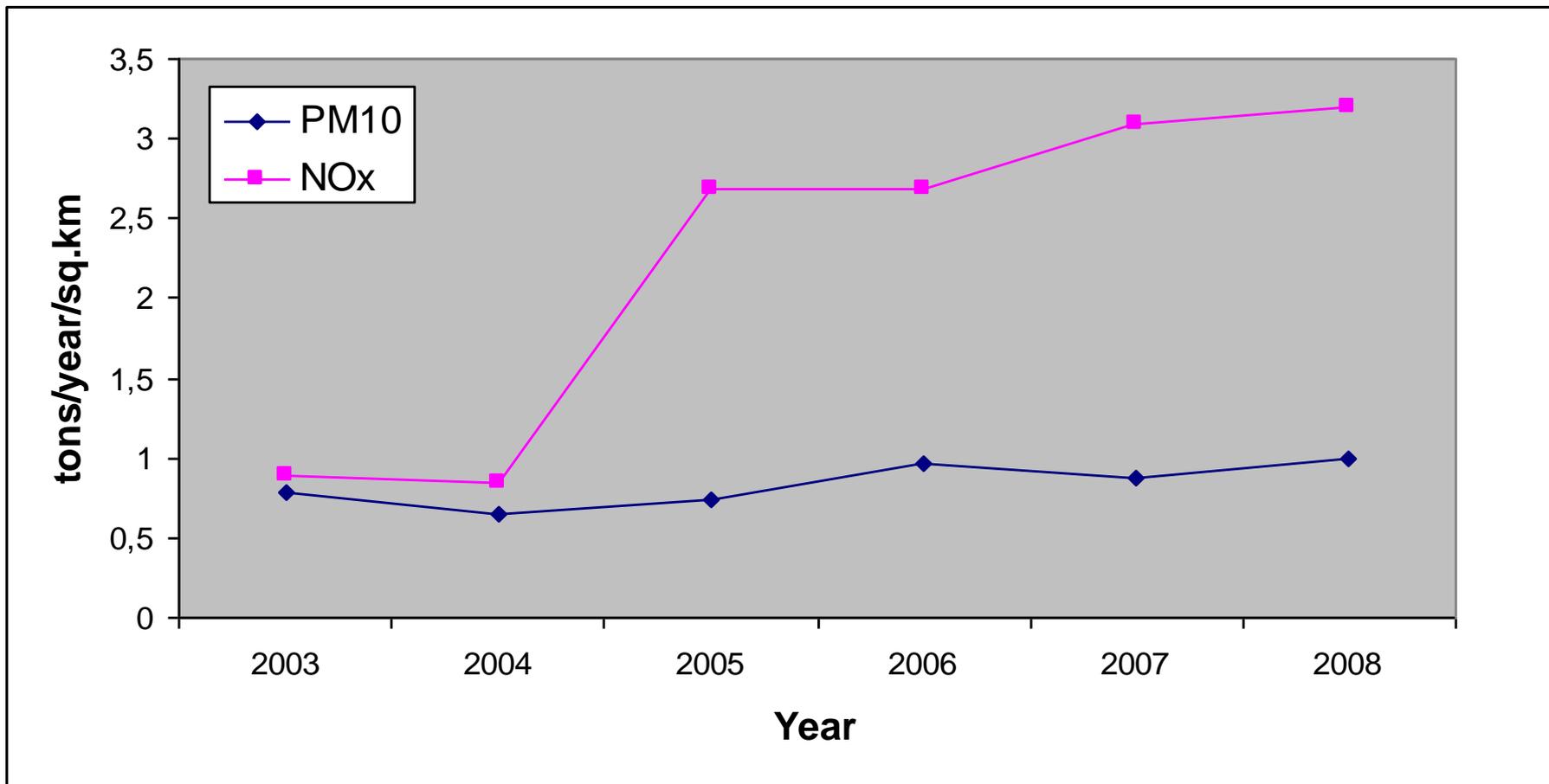
SEA Guiding Questions (I.)

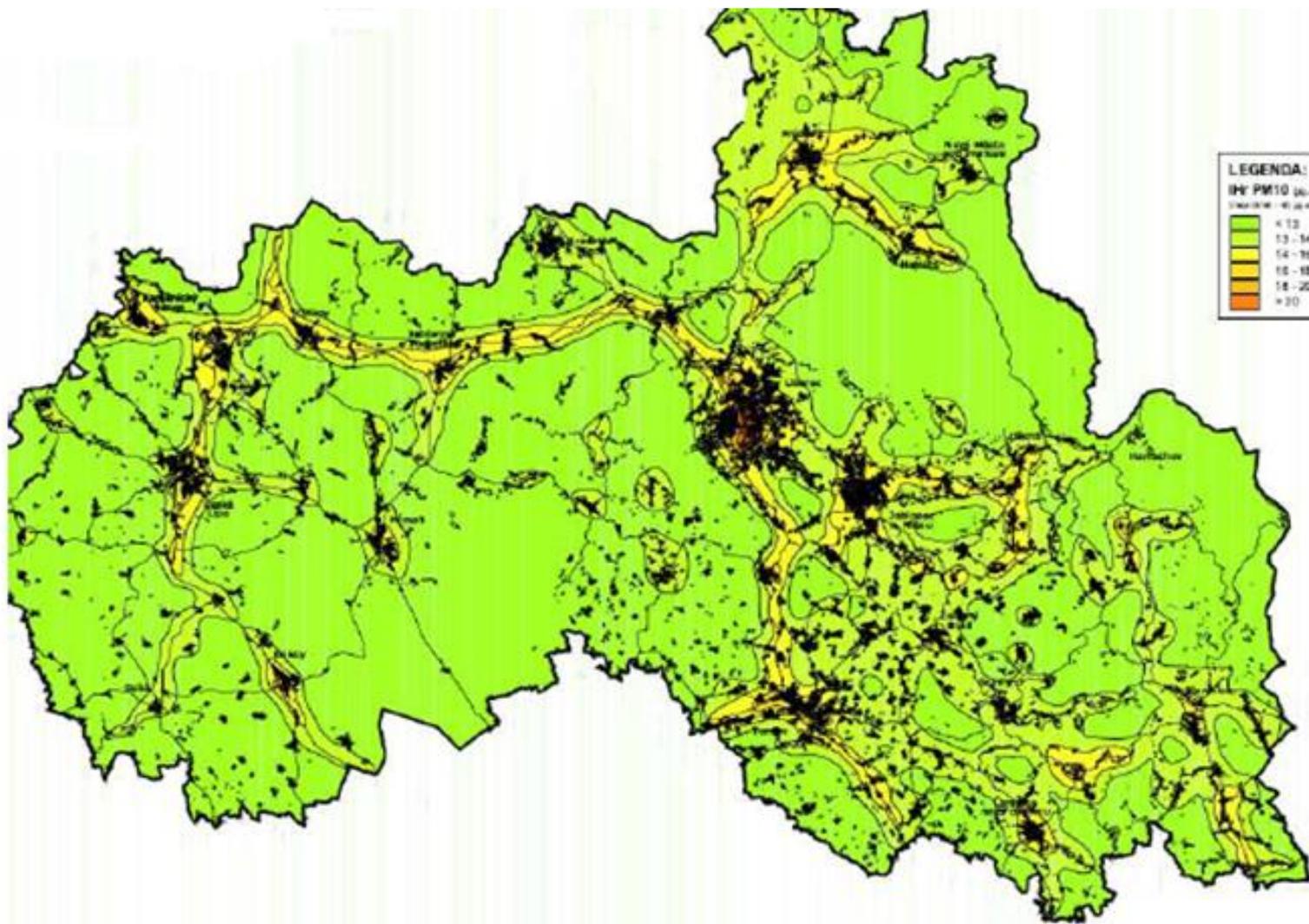
- What are the legal and policy targets?
- What has been the trend so far?
- How far is the current situation from any established objective or targets?
- Is it reaching any critical turning point of bottom-line?
- What is driving these trends?
- How will the future trend evolve without the proposed plan or programme?
- How is this baseline trend going to be influenced by major developments that have been already approved but not implemented yet, climate change, changes in the regulatory or policy framework, economic incentives, etc.?

SEA Guiding Questions (II.)

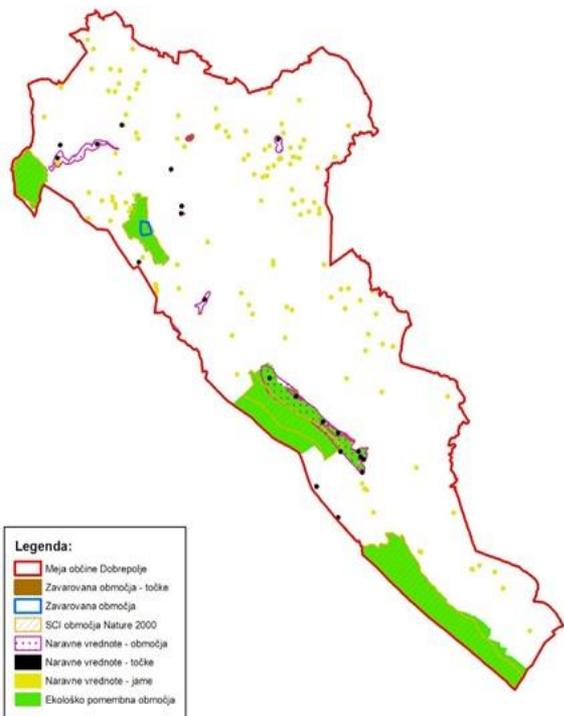
- Considering all this, how would you describe the realistic worst-case and the best case scenario in the future trend if the spatial plan is not implemented?
- What are the key implications of the planning process?
- Which population groups or economic sectors can be adversely affected by this trend?
- The conclusions should be supplemented by any graphic aids to illustrate the trends
- Comments on the adequacy of current data and monitoring systems should be made
- Any major data gaps and uncertainties highlighted (should it be the case) as a result of this stage of SEA.

Description or Analysis

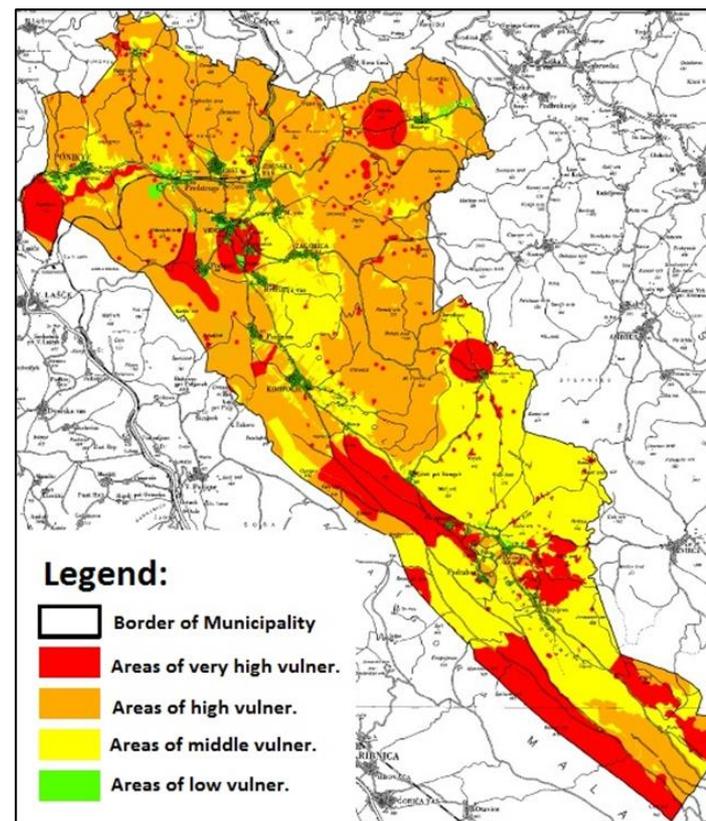
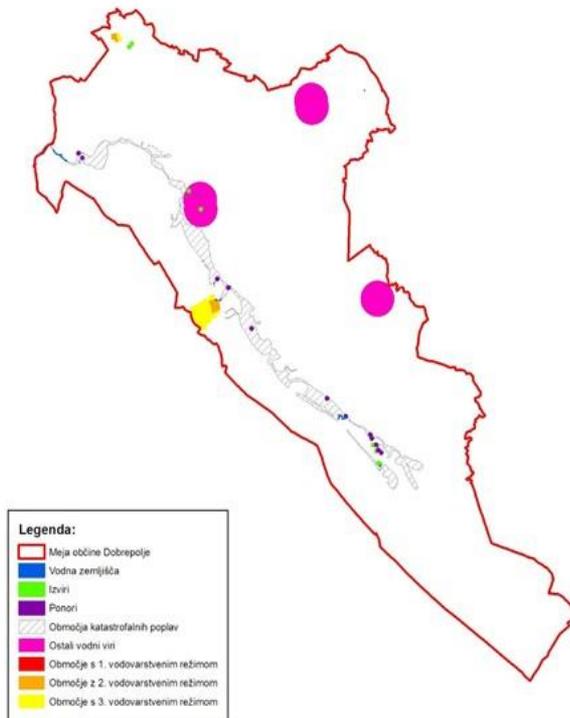




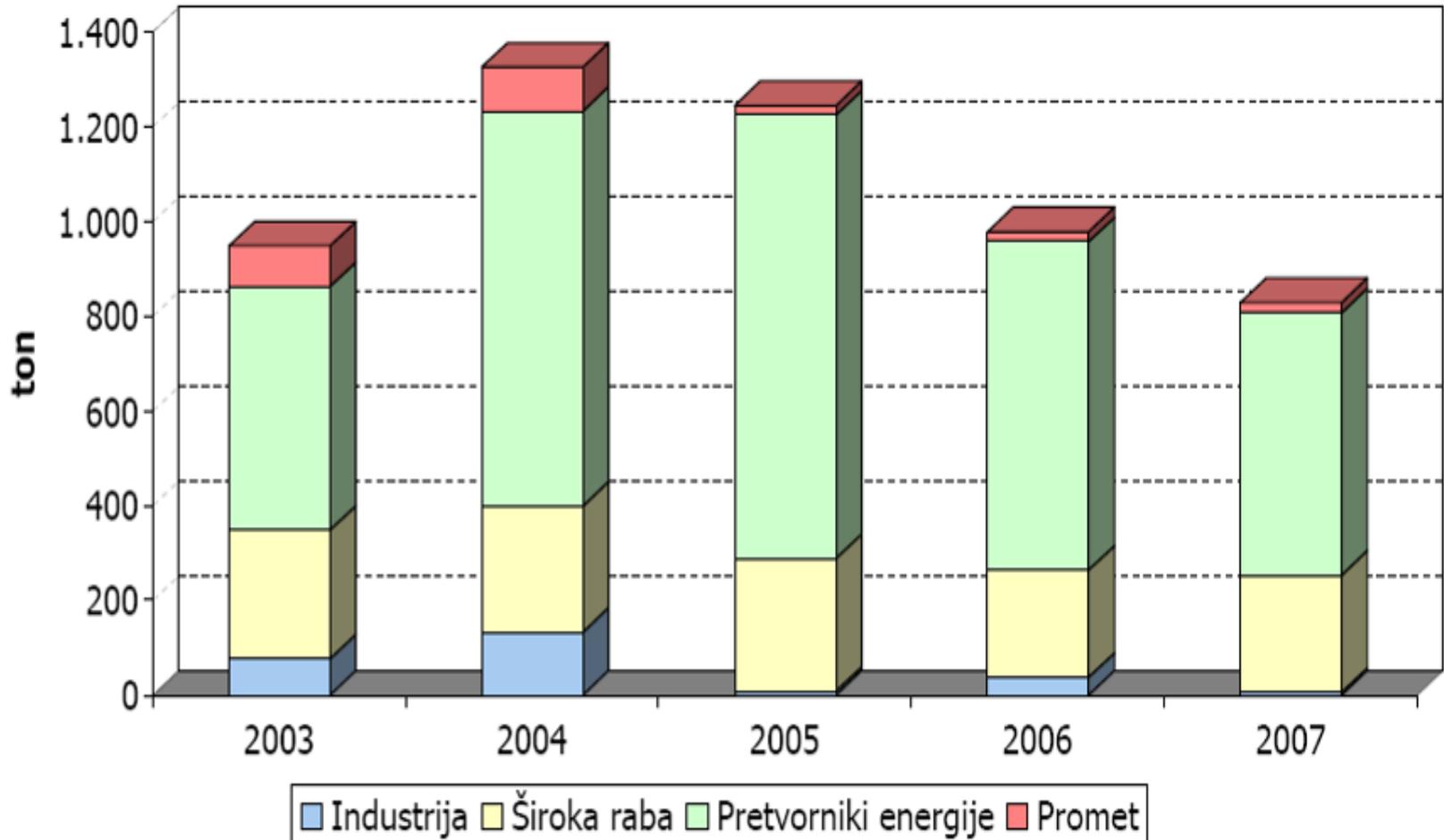
Areas of high value– nature



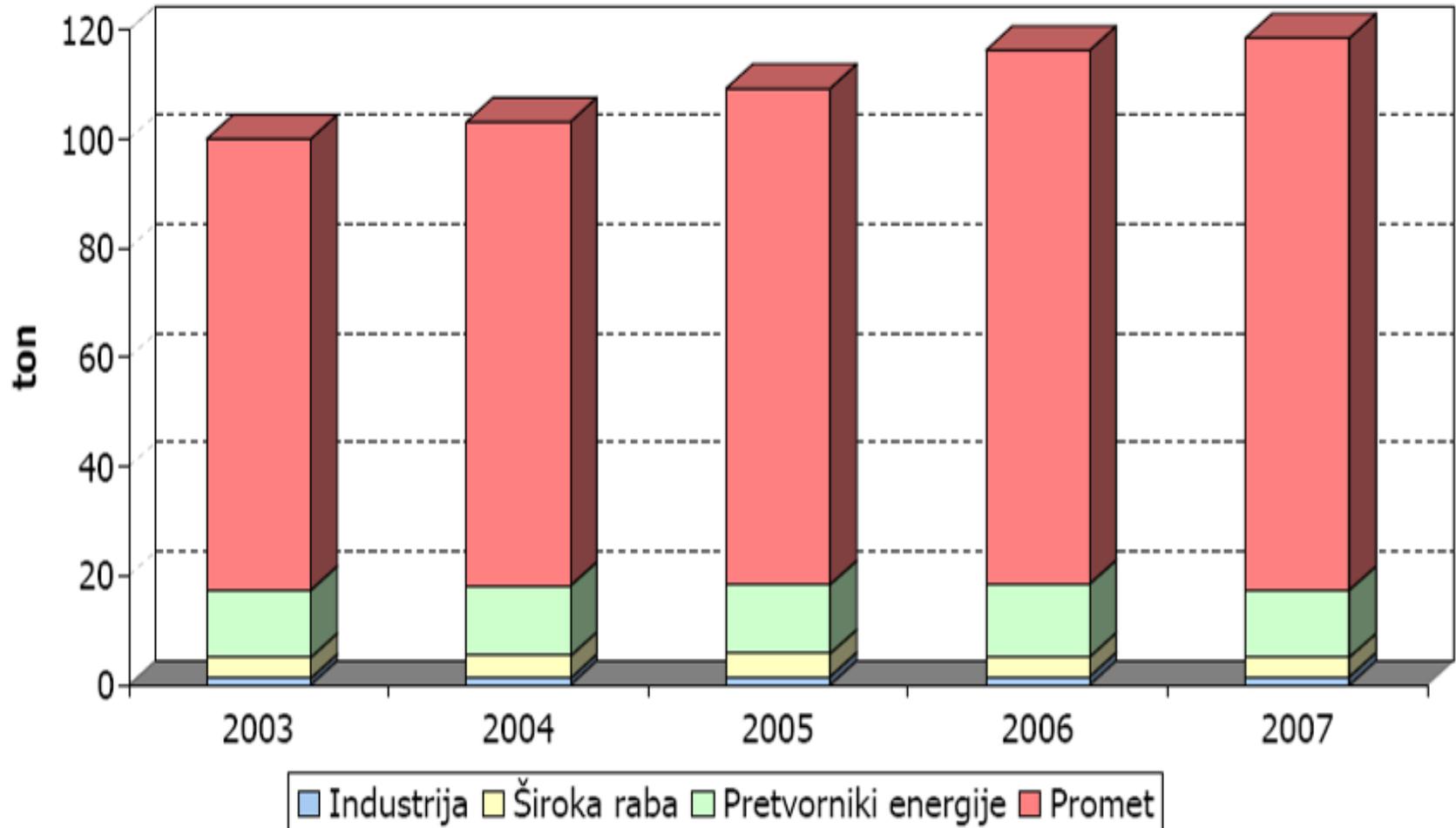
Areas of high value– water

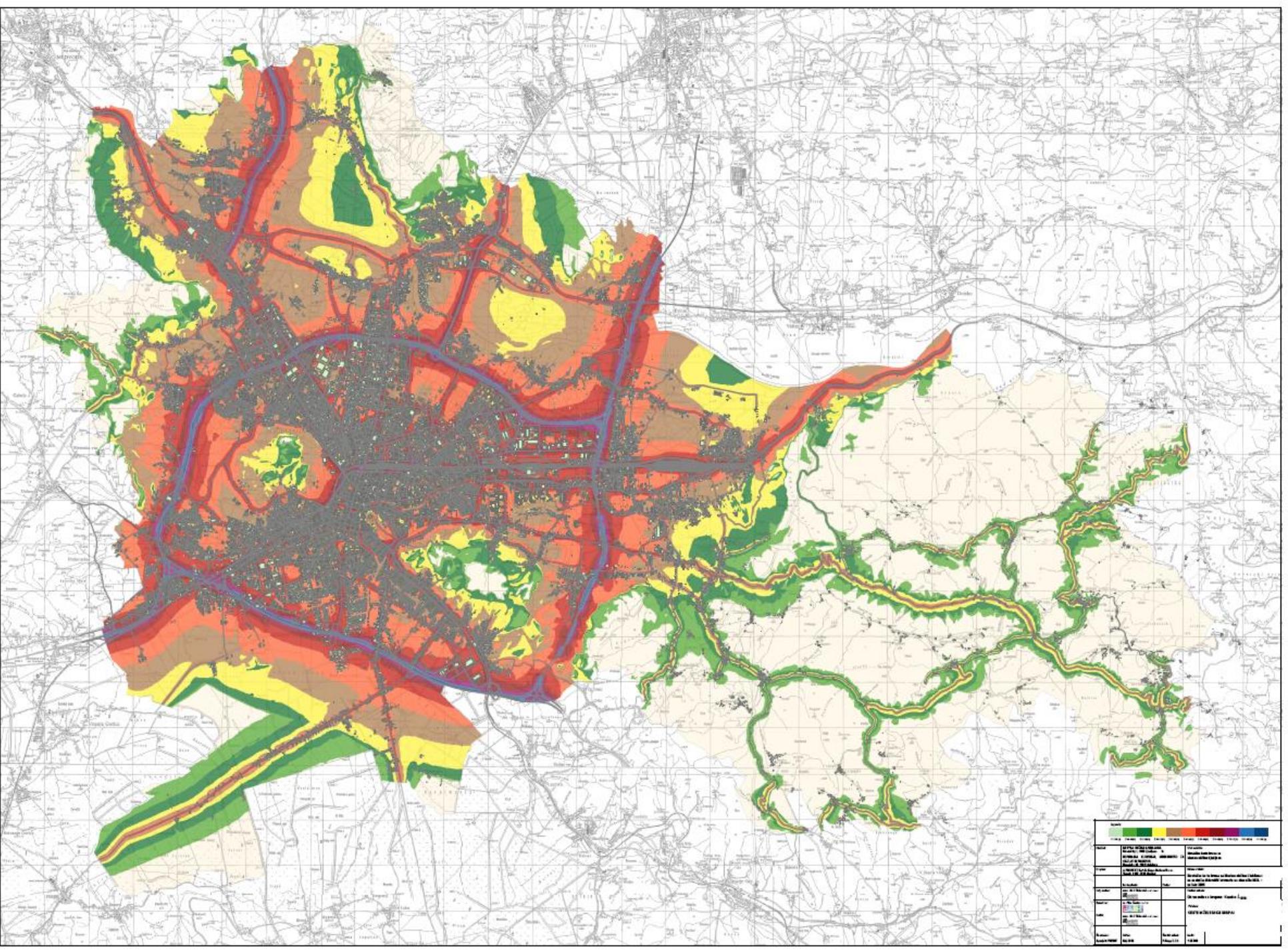


SO₂ emissions



NO_x emissions





Scale	
1:50,000	1:50,000

Symbol	Description
[Red Area]	High Flow / Inundation
[Orange Area]	Medium-High Flow / Inundation
[Yellow Area]	Medium Flow / Inundation
[Green Area]	Low Flow / Inundation
[Blue Line]	Major River
[Grey Area]	Urban Area
[Black Line]	Road
[Brown Line]	Contour
[Dotted Area]	Water Body

Author	Year
USGS	2000

Project	Client
Water Resource Assessment	USGS

Map Title	Map No.
Water Resource Assessment	1000

Practical tips

- **Use expertise within environmental and health authorities** and key stakeholders to identify and interpret relevant data and predict trends.
- When assessing future trends, **consider impacts of other future projects and development plans that have been approved but not implemented yet** – these may often significantly alter the existing environmental situation
- Share information with the planning team.
- **Keep the focus** when collecting information.
- Do not collect excessive details or use information just because it is there.

Topics for discussion

- Would you consider the baseline trend analysis as a useful part of analysis?
- If not, what other approach you would apply to get a basis for further evaluation of likely impacts?
- Are there any analyses usually carried out within physical plan preparation which could be used also in SEA?
- Would you consider the questions posed above as sufficient for guiding the analysis or are they too detailed?
- Would you suggest any additional questions or modification of formulated ones?

Topics for discussion

- Can data and information usually available provide enough inputs enabling preparation of baseline analysis?
- What difficulties would you foreseen when working on this task?
- How time demanding it can be in practice (how many working days would be needed)?
- Whom would you consult in this stage?

Concluding remarks

- **Description** vs. **Analysis**
 - quite often the lack of data is not a major problem, but analyses are poorly targeted and focused on irrelevant issues
 - it is important to focus on **analysis of information** and avoid extensive description of non-relevant facts
- Concentrate on issues identified in scoping
- It is important to identify **driving forces behind the apparent trends**...although some impacts may not be visible yet
- **Where relevant, likely effects of climate changes** should be considered
- **Targeted consultations** can be very efficient way to establish baseline
- **Uncertainties** have to be acknowledged

Thank you!

Michal Musil