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IS THE DRAVA RIVER BASIN MANAGEMENT SUSTAINABLE AND WELL ON THE WAY?

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Slovenia

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International Symposium „Drava River Vision“ 23. – 25. September 2008, Maribor Slovenia



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Organisation of River Basin Management in Slovenia

Part of Danube Catchment Area



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Organisation of River Basin Management in Slovenia



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Organisation of River Basin Management in Slovenia

Institutional Structure

Ministry of Environment and Spatial Planning

- Institute for Water

Environmental Agency

- Public services

Inspectorate for the Environment and Spatial Planning



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Organisation of River Basin Management in Slovenia

Institutional Structure

Ministry of Environment and Spatial Planning

- Institute for Water

Environmental Agency

- Commercial public services

Inspectorate for the Environment and Spatial Planning

- • Operation and maintenance of water infrastructure intended for the preservation and adjustment of water quantities
- • Expert, organisational and developmental tasks related to the waters
- • Monitoring
- • Interventions in the case of adverse effects of water
- • Administrative tasks on the national level
- • Acting in the case of sudden water pollution and supervision of the implementation of the provision of the water environmental protection legislation



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Examples of current activities



In accordance
with Natura 2000



Rehabilitation of
consequences of
the adverse
effects of water



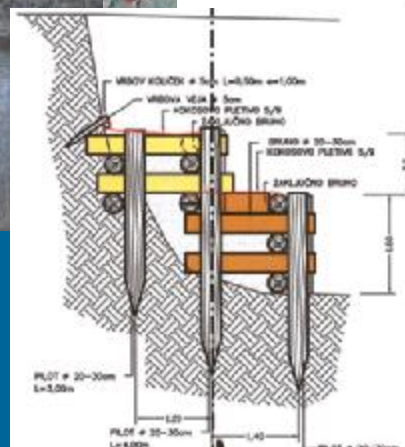
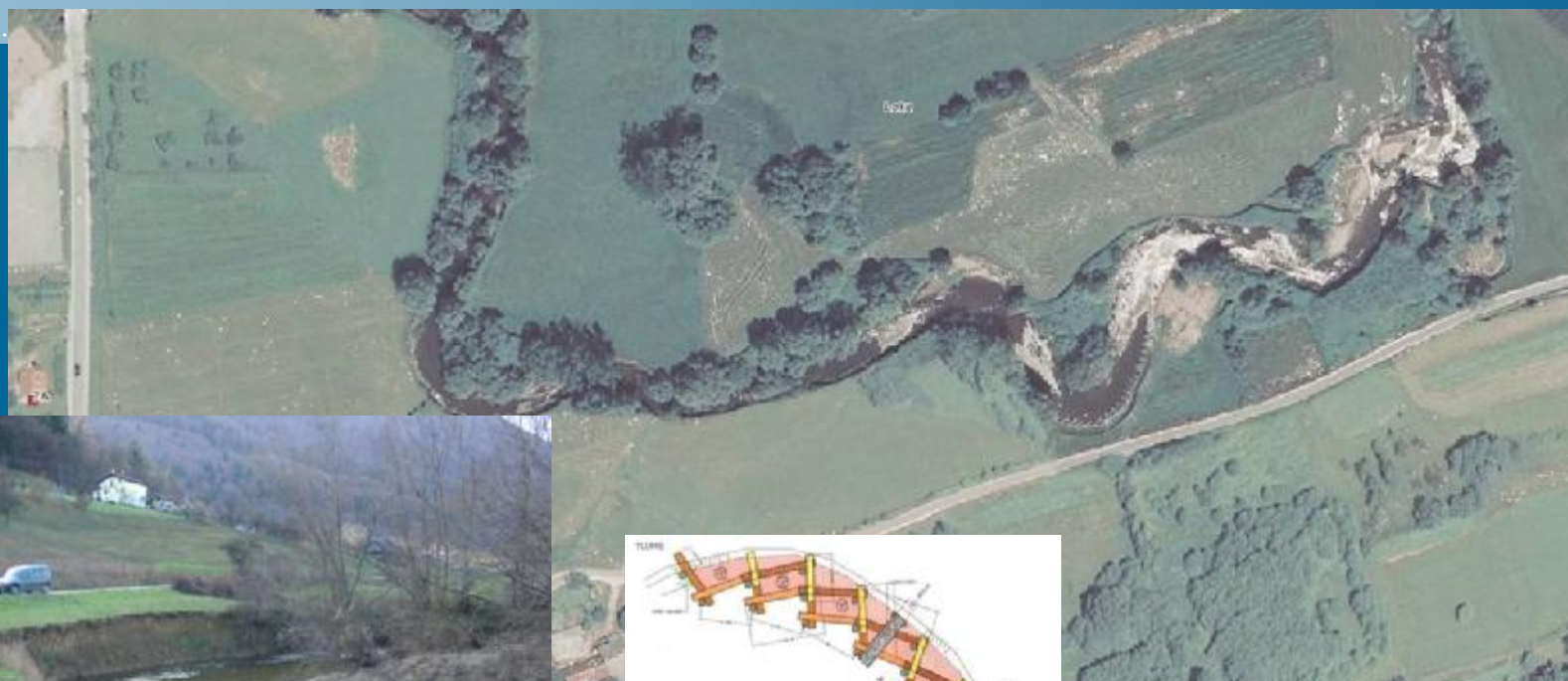
Rehabilitation
of the river bench
damage

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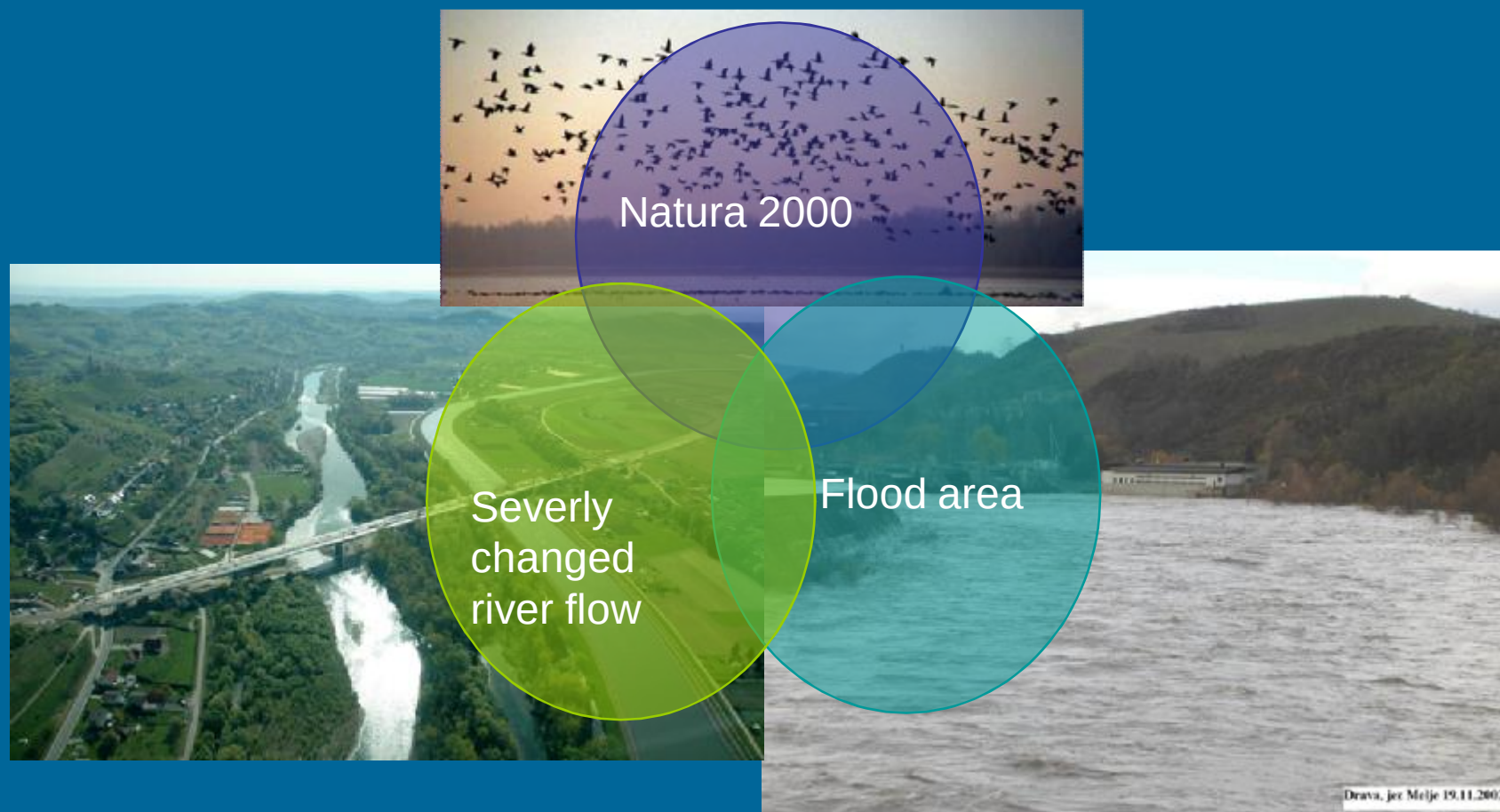
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Examples of current activities

Flood protection measures on Drava river from Vurberk to the Melje dam



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Examples of current activities

Flood protection measures on Drava river from Vurberk to the Melje dam



Re-vitalisation of the stream



Flood protection levee
with retention areas

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3. Main problems and challenges will aggravate with climate changes

Hydrological load

- special use of water
- bypass channels and floodways,
- oscillations in the flow and level of the waters
- melioration,
- discontinued migration paths and sediment transport



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Morphological load



- rigid regulations of river beds,
- degraded river bank and removed vegetation,
- expansion of urbanised areas on water lands



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Water pollution



- pollution by industry, health care, waste water treatment plants etc.
- agriculture by excessive use of fertilisers and fito-pharmaceutical substances,
- biological pollution by invasive alien species

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Institutional problems

- Sectorial planning (nature, agriculture, waters,..)
- Separate treatment use – protection – regulation
- Implementation of regional water management measures during large national projects
- Unordered legal and proprietary status of water lands



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4. Examples of sustainable measures and activities in the Drava river basin management

National level:

Adjustment of the national to the european legislation

Implementation of operative programs

Specification of water protection areas

Specification of endangered areas

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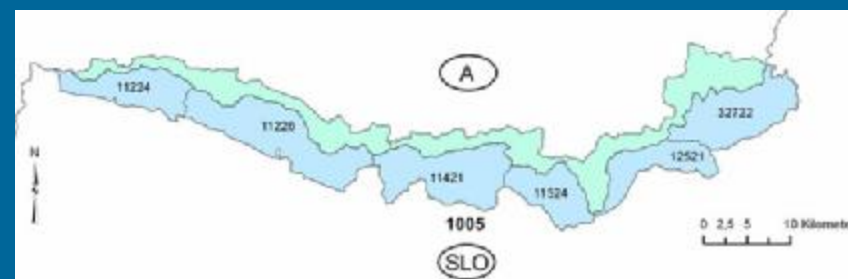


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Example of EU policies implementation: Karavanke

- Underground water bodies do not recognise the political borders
- Subregional cooperation is NECESSARY for sustainable use of water resources
- Physical Planning as a tool for sustainable land use
- Implementing EU policies –WFD, FD



- Established by bilateral SLO/A water management commission
- Result of 15 years of joint hydrogeological research

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Example: Integral management of the Dravinja river basin

- **one of the largest ecological projects in Slovenia**
- **implementation will raise the quality of life while preserving and revitalizing the ecological status of the river**
- **example of successful cooperation between experts, municipalities and the state.**



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Existing and planned wastewater treatment plants (ČN)



- Supply of drinking water
- Waste water treatment
- Waste management
- Flood protection management

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5. EXAMPLES OF SUSTAINABLE ACTIVITIES IN THE FUTURE

Preparation for climate changes

- management of torrent areas (forest management)
- adjustment of water quantities in low lands
- Underground water management – drinking water sources;
- Informing and education of population about trends and adaptation possibilities
- crossborder collaboration of experts for joint learning, exchange of experiences and common planning of measures

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Transborder cooperation on Drava river:

- Karavanke: continuation of subregional transborder cooperation on underground water body
- Continuation of a good practice example: cooperation Slovenia -- Croatia: establishing Hydrographical Atlas of Drava river in the border area
- Application for funding of a crossborder project cooperation between Slovenia and Austria: Dra-mur-ci
- Expressed interest for establishing common crossborder Drava river basin management plan (by CRO/SI water management commission)

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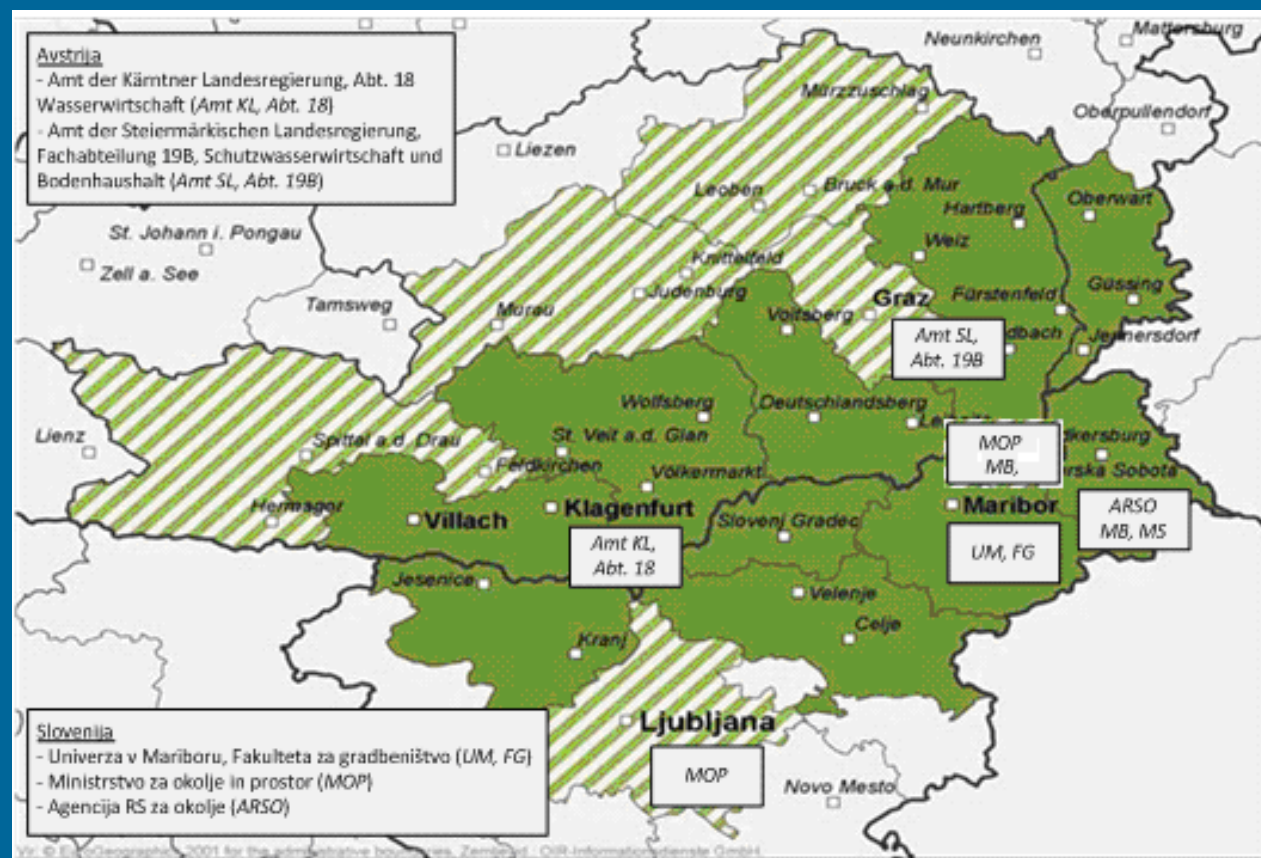


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Dra-Mur-CI: Crossborder cooperation – Slovenia-Austria



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Dra-Mur-CI: Crossborder cooperation – Slovenia-Austria

Main emphasis:

- Flood risk management
- Sediment transport monitoring
- Ecological state of waters and water areas
- Pilot projects – revitalisation of Drava and Mura rivers

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6. CONCLUSION:

OUTLOOK TO IMPLEMENTATION OF EU LEGISLATION

- Common planning of nature, water and land
- Nature does not care for political borders, transboundary cooperation is essential
- Sub-regional specifics must be observed
- Sub-regional units are only succesful by proactive cooperation

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