



Von der Elbe lernen? *Learning from the Elbe* Herausforderungen an der Theiß *Challenges on the Tisza River*

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„All IN THE SAME BOAT“

10 Years of Transnational Cooperation
in Flood Risk Management at the LABE-ELbe

Final conference – June 21-22, 2012
Saxon State Parliament, Dresden

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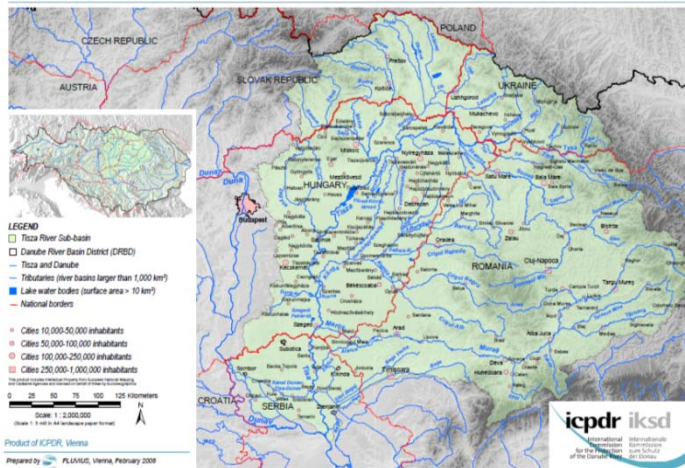
- Der Fluss Tisza/Theiss im Donau Tal
- Leben mit Hochwässer - Beispiele von der Theiss
- Herausforderungen und Lösungen
- Erfahrungen aus der nationalen Risikomanagementstrategie
- Der Weg von der WRRL bis HWMRL / Qualität oder Quantität
- Erfahrungen und Ergebnisse aus der Kooperation in LABEL.
- Lösungen der Zukunft der HWM
- *River Tisza/Theiss in the Danube Basin*
- *Life with floods – examples from the Tisza valley*
- *Challenges and solutions*
- *Experiences from the national risk management strategy*
- *The way from WFD to FD / Quality or Quantity*
- *Experiences and results from the LABEL cooperation*
- *Solutions of the future of FD*

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Tisza valley in the Danube basin

Tisza River Sub-basin: Overview



similarities

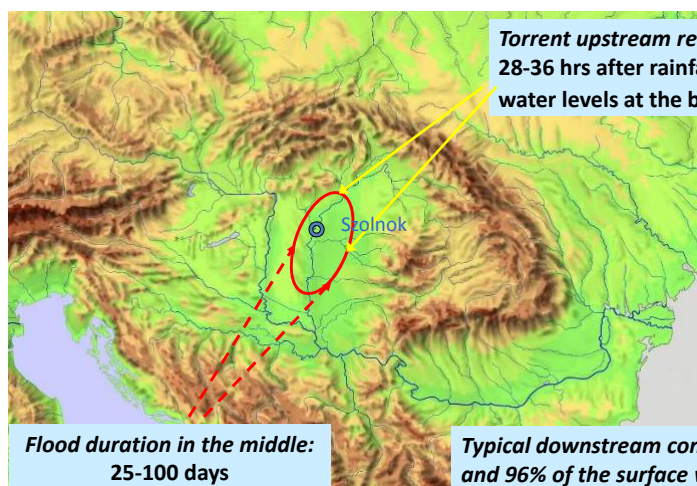
Tisza
157 200 km²
945,8 km
5 countries

Elbe
148 268 km²
1 094,3 km
4 countries
10 federal states

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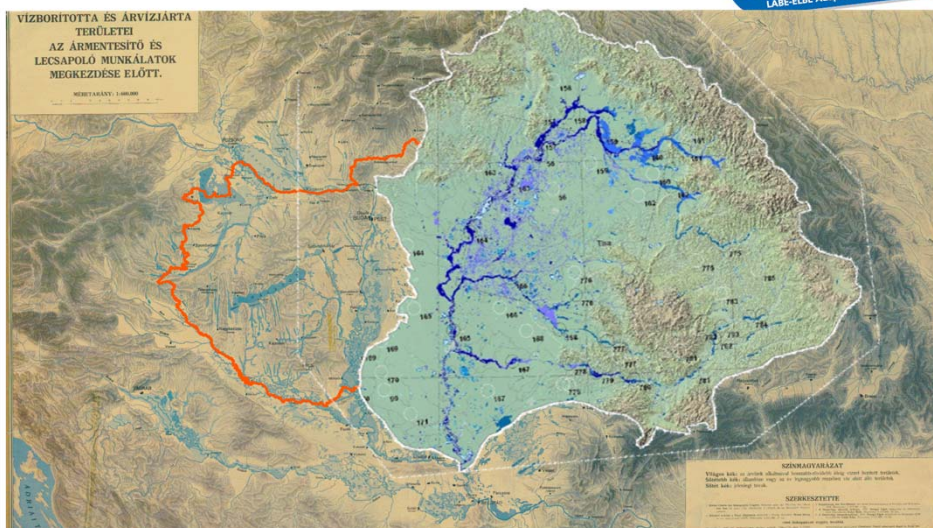
Where we are ?



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Life with floods – waterworld ?



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SURROUNDINGS OF SZOLNOK ... THEN AND NOW



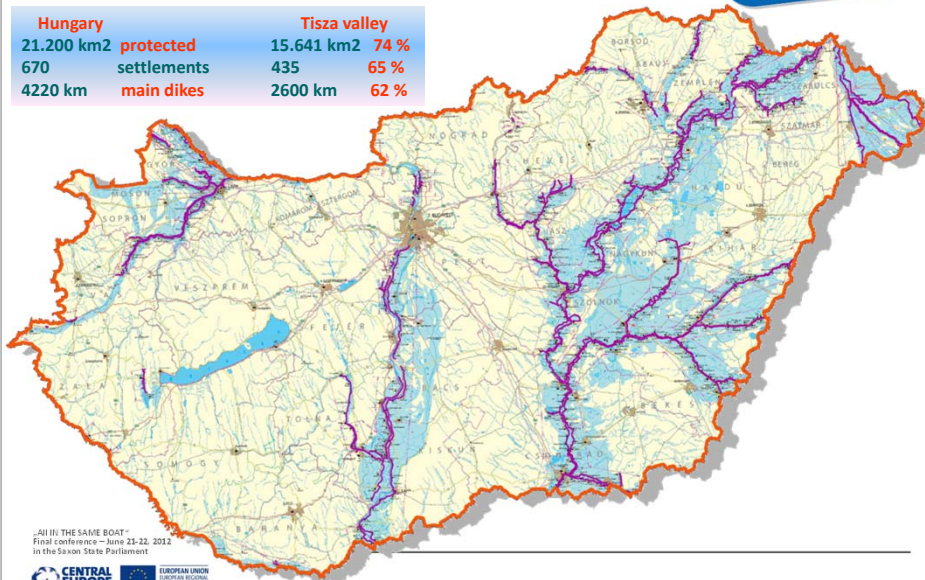
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Flood defence lines of Hungary



Hungary		Tisza valley	
21.200 km2	protected	15.641 km2	74 %
670	settlements	435	65 %
4220 km	main dikes	2600 km	62 %



Strategic challenges of the water management



Utilization of water resources and the environmental constraints

CLIMATE CHANGE

WATER PHENOMENA LIKE FLOODS AND DROUGHTS

Water utilization in agriculture

Urban water management

Water quality

Harmonise the ecological and engineering approach

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What have been done after the floods in 2000?



Decreasing the water level

Flood reservoirs

Improving flood flow conditions of the river bed

Tisza Action Plan

(Development of the Vásárhelyi Plan VTT)

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Main investments in the Tisza Action Plan



Completed

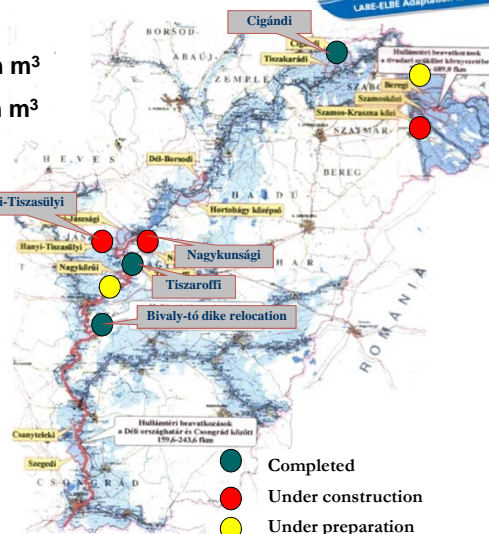
Cigándi FRB	100 million m ³
Tiszaroffi FRB	97 million m ³
Bivalytó dike relocation	~500 ha

Under construction

Hanyi-Tiszasüly FRB	247 million m ³
Nagykunsági FRB	99 million m ³
Szamos-Kraszna FRB	126 million m ³

Under preparation

Beregi FRB	60 million m ³
Relocating dikes on the downstream of Kiskore	~600 ha

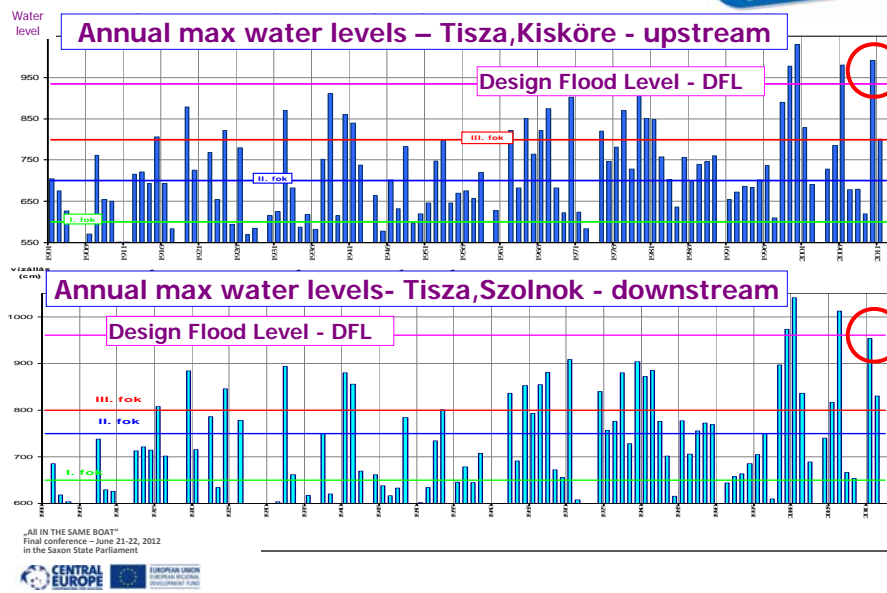


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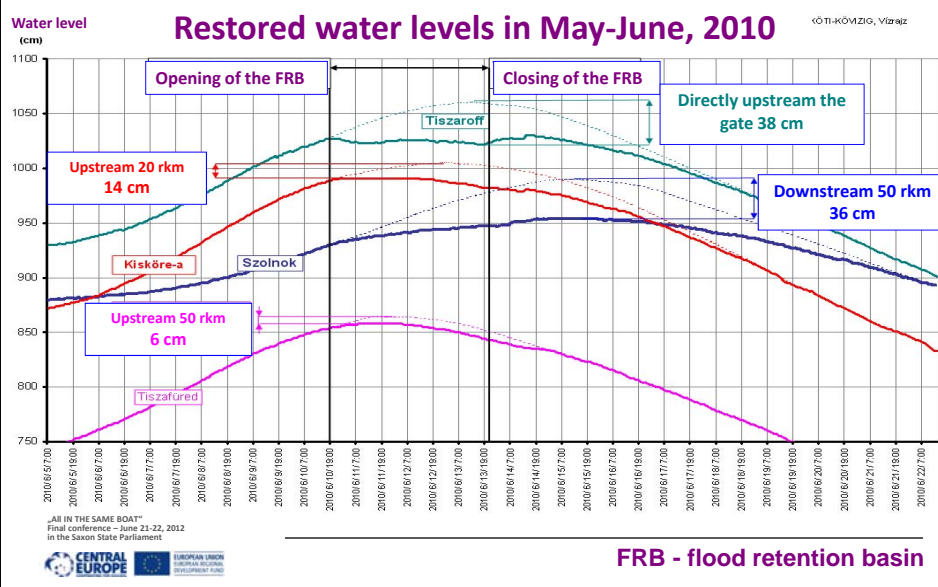


FRB - flood retention basin

Result of first opening of Tiszaroff FRB



Results of the Tiszaroff FRB's first opening



The way from WFD to FD



- Water Framework Directive 60/2000/EC (10.23)
- ICPDR Tisza Group 2004
- Tisza River Basin Integrated Water Management Plan 2010
- Flood Directive 60/2007/EC (10.23)

Could one directive be more important than the others?

NO, it is possible to harmonise WFD and FD, and it is also important to quantify the effect of WFD measures to flood situation !

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Features of the floods in Hungary



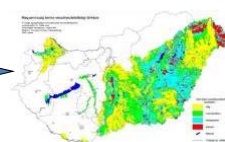
Overviewing existing
methodics/methods?

Preliminary regional
assessment

Overviewing existing
maps



Flood
24%



Inland waters
45%



Small watercourses
45%

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Experiences and results from the →



- Right after the flood in 2002, the work has been started!
- The cooperation works !

We have started to implement the FD before its adoption!

- The solutions need to be suited to the possibilities and demands / Die Lösungen müssen den Möglichkeiten und den Ansprüchen angepasst werden
 - Do not make it more complicated than it can be treated!
Nicht komplizierter als behandelt werden kann

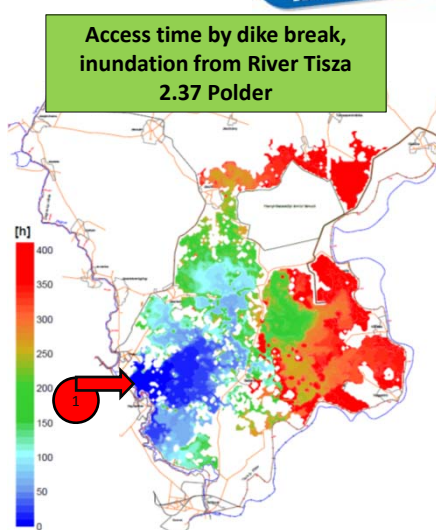
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Results of Label



- Elements of your hazard and risk mapping have been established into the Hungarian methodology
- Modelling, hazard mapping, risk management plans have co-financed by the project
 - 3 flood polders,
(1015; 85,3; 224,2 km²)
altogether 1.324,5 km²



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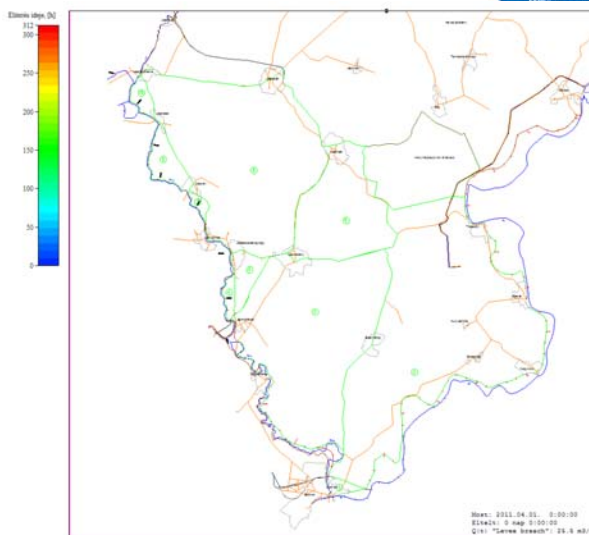
Dike break version – 2D modellrunning



2.37. Polder
Laskó-Tisza-
Zagyva-Tarna
Polder

1015 km²

Inundation
process lasts
for more than
two weeks



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Solutions of the future of FD



- Public involvement is becoming more important
- Both hazard and risk can be treated
 - Treating of hazards
 - Treating of inundation risks
 - Treating of damages risks
 - Decreasing the flood level
 - Flood defence
 - Spatial planning
- Cooperation is needed in the whole river basin
- Upstream – downstream :
Everyone can be both – it just needs to be understood !

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Treating of the inundation risks



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The problems should be addressed !

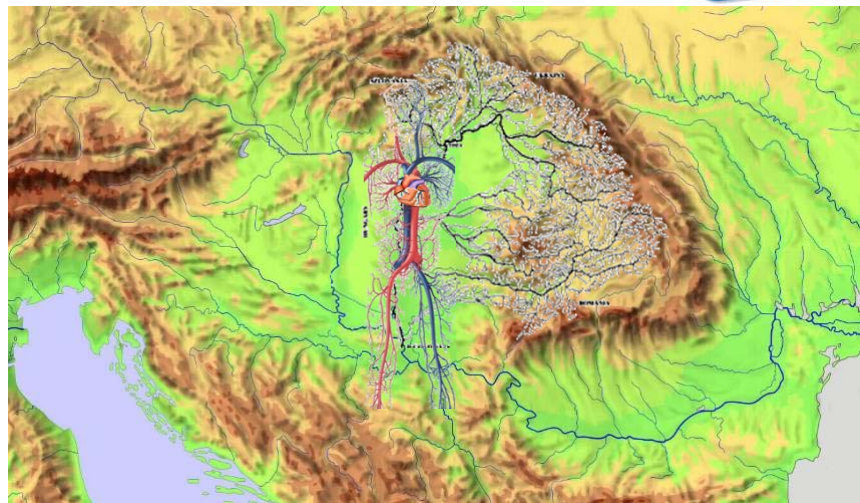


- International collaboration is essential for joint action, harmonize the central and local governance, economic, business sector, local communities, civil society
- Elimination of downstream vulnerability
- Floods without causing flood damages, flood retention, forecast, spatial planning
- More modern, rational rivers, land and water management
- Ecological justice - wetland protection, biodiversity
- Storage, polder water management
- Climate change and response options

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The Tisza Valley – a living catchment



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The need to work together – international cooperation

