


Implementation of the Floods Directive Czech Republic

Cooperation in the project LABEL

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Ministry of the Environment
of the Czech Republic


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Objectives of the presentation

1. Transposition and Implementation
2. Financial support of implementation
3. Current status of works
4. PFRA
5. APSFR
6. Flood hazard & flood risk maps
7. Process of planning
8. Outputs in the project LABEL



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Transposition and Implementation

- **Fully transposed in February 2011 by:**
 - Act. No 150/2010 Coll., amendment of the Act No. 254/2001 Coll., on Waters
 - Public Notice No 24/2011 on RBMPs and FRMPs
 - CZ do not use Art. 13 of the Directive
- **3 units of management, same for WFD:**
 - Danube, Elbe, Oder
- **2 competent authorities:**
 - Ministry of the Environment,
 - Ministry of Agriculture

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Main river basins in the Czech Republic



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Financial support of implementation

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- Research and assessment
- PFRA / APSFR
- Methodology of mapping
- Methodology of planning
- Reporting to EU COM



EVROPSKÁ UNIE
Fond soudržnosti

- Flood hazard and risk maps
- Standardization of mapping and planning
- Documentation of APSFR
- FRMPs
- Communication and information



EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND



- Research and assessment
- Pilot projects
- Harmonization on international river basins

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Current status of works

PFRA

- **done:** methodology, reporting test
- **under preparation:** report, general maps

APSFR

- **done:** methodology, reporting test
- **under preparation:** report, general maps

FHMs & FRMs

- **done:** methodology, pilot projects, standardization
- **under preparation:** map preparation (public procedures or laser scanning already)
central data storage for publication (POVIS)
- **plan:** reporting test

FRMPs

- **under preparation:** methodology and pilot project (I. 2012)
- **plan:** standardization, reporting test, preparation of FRMPs

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PFRA

- **Assessment covered whole country area**
- **Spatial analyses used**
- **Based on available information – standard databases provided in the Czech Republic**
 - Reports on the assessments of significant floods
 - Designed floods (5, 20, 100 years return period and 10 000 yrs for dams)
 - Fundamental Base of Geographic Data (map scale 1:10 000)
 - Data of the Czech Statistical Institute: inhabitants, economic activities
 - National Culture Heritage Database
 - IRZ Integrated Register of Pollution (under IPPC)
 - Extent of past floods in 1997, 2002, 2006, 2009
 - Flood protection priorities of Regions (prepared for the 1st RBMPs)
 - Consultation and experiences of River Basin Authorities



Defining of APSFR



1. **Main aspects:** number of permanent residents & value of properties affected by designed floods of 5, 20, 100 years return period
2. Matrix of variants APSFR
3. A year loss functions
4. Set up thresholds:
5. 25 inhabitants affected /year & 3 million EUR affected properties /year
6. Other aspects
 - potential sources of pollution
 - significant culture monuments
 - affected by designed flood of 100 years return period
7. Passed flood extent control & Regional priorities control
8. **Finalization of river sections defining the APSFR**



River sections defining the APSFR

apxt. 3 000 km



Flood hazard & flood risk maps

Maps of Flood hazard - Q5yr, Q20yr, Q100yr, Q500yr

map of flooding / inundation

map of depths

map of water flow velocity

⇒ **intensity of flood**

3 x 4 = 12
maps

Map of Flood Danger

Method of Risk Matrix (Beffa, Switzerland)

no need for quantification of flood damages

1 map

Map of Flood Risk

⇒ **danger + vulnerability of objects**

(integration of spatial and development)

1 map

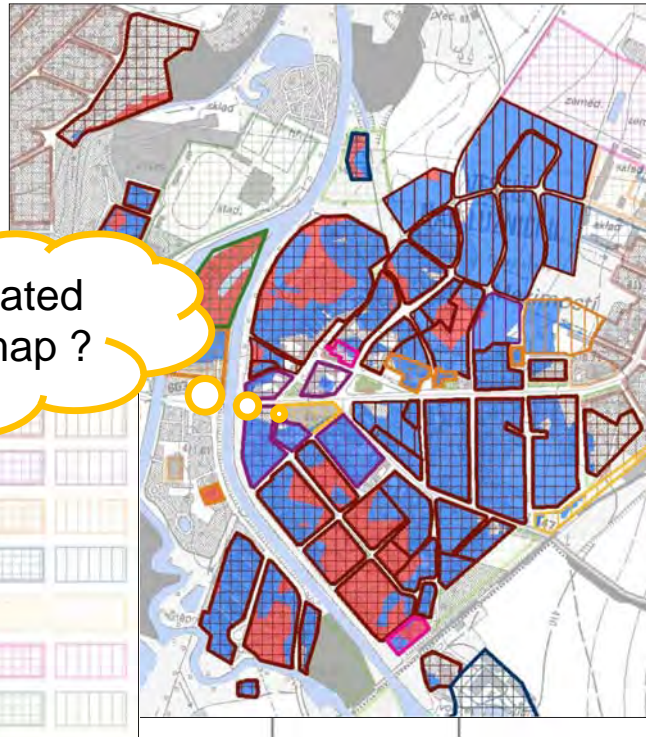
Example of flood risk map

Result

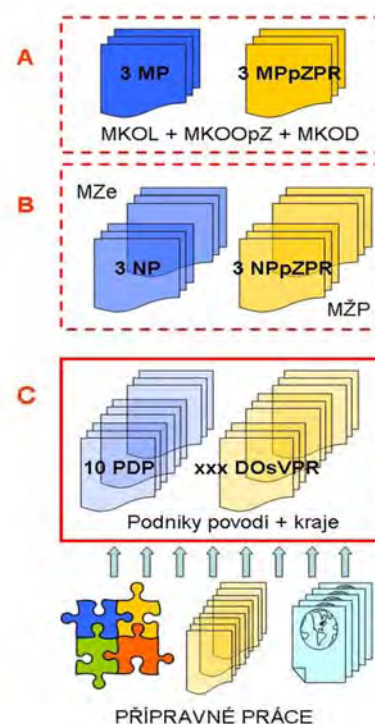
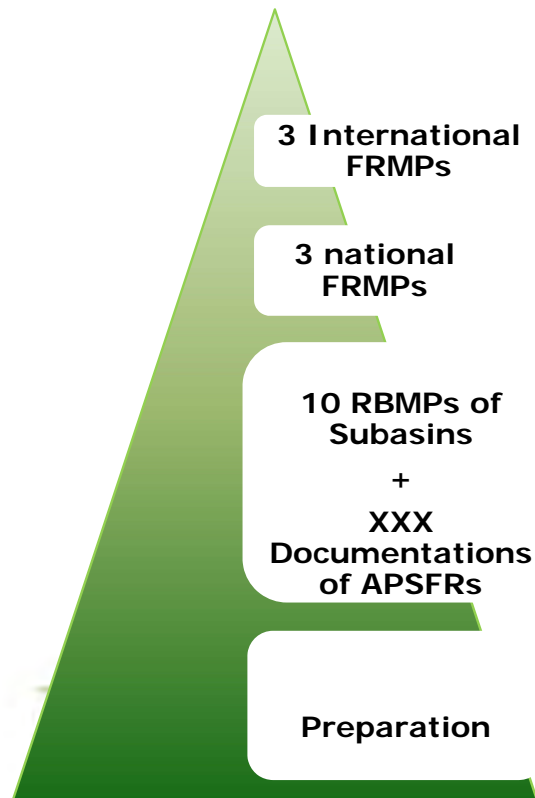
- areas beyond the limits of maximal acceptable risk (present, future)

IN RISK		
present	proposal	
		Housing
		Housing and service
		Civic amenities
		Technical amenities
		Transport
		Manufacturing and warehouses
		Recreation and sport

Q: 1 integrated flood risk map ?



Flood risk management plans



Outputs in the project LABEL

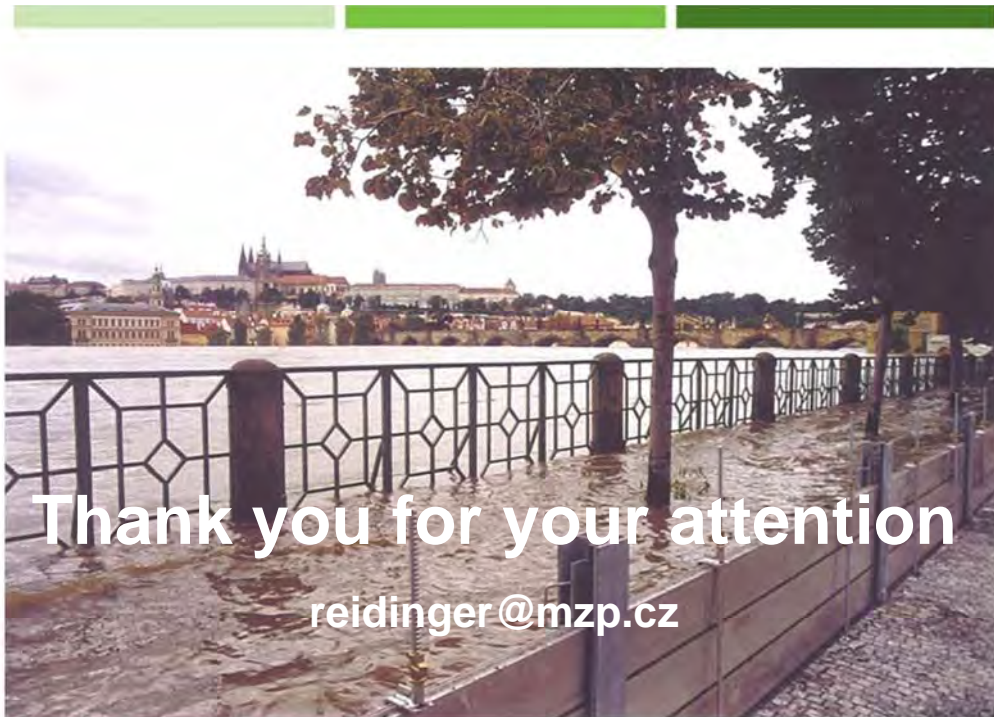


- PFRA methodology in the Czech Republic and proposed APSFR
- Test data reporting of PFRA, FHMs and FRMs for the Czech part of the international Elbe River Basin
- Standardization minimum processing FHMs and FRMs
- FRMP – pilot project (Jizera river) – now preparing

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