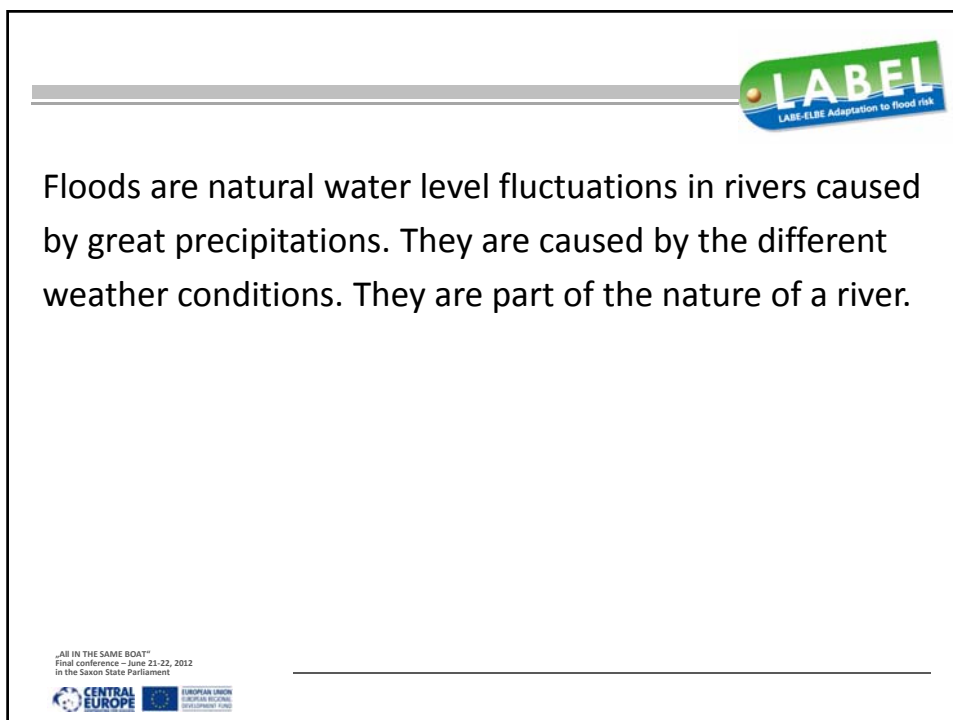




Elbe flood in 2002 and 2006 in terms of emergency management





Ing. Jaroslav Pikal, Regional Authority of the Usti Region

„All IN THE SAME BOAT“
 10 Years of Transnational Cooperation
 in Flood Risk Management at the LABE-ELbe
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Floods are natural water level fluctuations in rivers caused by great precipitations. They are caused by the different weather conditions. They are part of the nature of a river.

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Flood 2002



- Nature as casual agent – „too much rain“.
- The catastrophic flooding in Austria, the Czech Republic, and Germany.
- Result of two periods of intense rainfall. The first period of rain on August 6 and 7 in the southwestern Czech Republic and northeastern Austria; second more expansive and intense period of rain fell from August 11 and 13.

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- Rainfall was focused in two areas:
 - 1) near the Czech/German border in the Ore Mountains,
 - 2) in south Bohemia and northern Austria.

The rainfall triggered flood waves of the Vltava catchments. Catastrophic flood wave progressed down the Vltava through Prague and down the Elbe through north Bohemia and Germany.

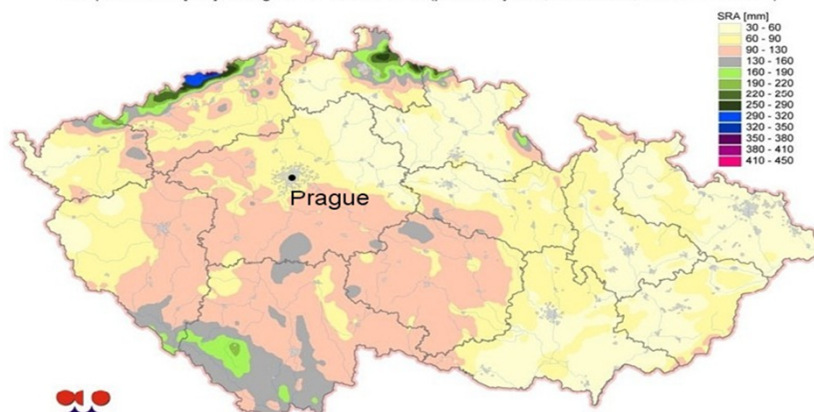
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Rainfall totals (mm) between August 11 and 13 (CHMI)



Precipitation total [mm] on August 2002 from 11 to 13 (preliminary data, 2nd version, release 23. 8. 2002)



ČHMÚ 2002

© CHMI, CLIDATA www.cldata.cz

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Major rivers and cities affected by the August 2002 flood



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Děčín (Tetschen)



Kopisty (Kopitz)



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Litoměřice (Leitmeritz)



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16.8.2002 Roudnice nad Labem

The legislative framework for flood management



- Act of 28 June 2001 on Water and Amendments to Some Acts (The Water Act), which defines flood prevention, floodplain zones, flood activity degrees, flood plans, flood inspections, flood prediction services, rescue activities etc.
- Protection itself is secured according to Flood Plans.

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Evaluation of the response to August 2002 flood



Lessons learned from floods over the past few years have induced all involved entities in flood protection in the Usti region to review the region's existing flood protection system and create measures to improve its operation.

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Flood forecast service



Precipitation forecasting

- designed a set of measures for its improvement which – finance permitting – will be gradually implemented in the areas of meteorology, hydrology, dissemination of information and forecasts.

Dissemination of information

- necessary to plan the alternative information systems that do not require electricity, including systems for notifying the general public.

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Flood risk management plan



- Flood Plans are sources of information dealing with the flood prevention and response.
- Based on the flood hazard maps and the flood risk maps on river basin in different district levels.
- The flood risk management plan contains common aims for flood risk management (prevention, protection and preparedness, including flood forecast and early warning systems).

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Basic essentials of flood emergency plans



- Hazard analyses - determination of possible threats.
- Identification of weakpoints and definition of disaster scenarios.
- Hazard mapping based on specified flooded areas.
- Planning of flood protection measures and evacuation zones based on calculated water depths and flow velocity.
- Definition of warning and alert threshold.
- Preparation of communication channels.

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The system of the Crisis Management - CENTRAL



Central Crisis Staff

- working body of the government for handling emergency situations,
- submits proposals for handling emergency situations to the National Security Council or directly to the government,
- ensures coordination, monitoring and evaluation of the taken measures,
- declaration of the state of Emergency.

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The system of the Crisis Management - REGIONAL



Regional Crises Staffs – RCS

- deal with the crises on the regional level (floods, big transport accidents, epidemic, fires, ecological disasters...),
- declaration of the state of Emergency for the region,
- chaired by the head of the region.

Composition of RCS:

- - the Governor of Region (hejtman),
- - the Chief of Fire Rescue Service,
- - the Chief of Regional Police Authority,
- - others.

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The system of the Crisis Management - LOCAL



Local Crisis Staffs - LCS

- on the level of the municipalities,
- chaired by the mayor,
- deal with the crises situations on the local level,
- Members of LCS appointed by the local government (firefighters unit, head of Police unit, Municipality Police, Rapid Health Service....),
- declaration of the State of Emergency on the local level.

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Integrated Rescue System - IRS



- The system of coordination of security bodies of the state.
- Chaired by the head of Fire Rescue Service (the Deputy of the Minister of the Interior).
- Deployed during the crises within the territory of the state or abroad (with approval by the government).
- Special Budget for IRS within the State Budget (about 3, 5 mil EUR).
- The components of IRS are trained to respond to all the kind of crises situations (elaborating the operational plans for those situations).

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Integrated Rescue System - IRS



The basic components of IRS:

- Fire Rescue Service,
- Police units,
- Rapid Medical Service,
- specialized units of Czech Army (anti-chemical unit....).

Other components:

- - specialised rescue services (mine rescue service, mountain rescue services, speleologists).

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Tasks that were carried out



- Digitalisation of maps based on GIS.
- Covering the local plans with flood hazard zones.
- Spatial planning tools to limit unsuitable buildings.
- Flood protection concept for municipalities.
- Technical solutions for flood protection (HQ 20/HQ100).

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Flood portal



- Flood portal provides a single location for all flood risk information. It is accessed via a „web portal“ where data can be easily, captured, updated and reported. It provides an efficient means of sharing information across risk management authorities and other stakeholders.
- <http://cosmod.kr-ustecky.cz>

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Flood protection measures in Usti nad Labem



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Thank you for your attention!

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