PFRA for the Danube RBD

Igor Liska
ICPDR Secretariat
Flood Protection: Danger of floods in DRB

In the last decade the Danube River Basin suffered from massive floods in 2002, 2005, 2006 and 2010.
Danube River Basin District: Flood Events in 2010

LEGEND
- Flood Event
- No data provided
- Danube River Basin District (DRBD)
  - Danube River
  - Tributaries (with catchment area > 4,000 km²)
  - Lake water bodies (with surface area > 100 km²)
  - Transitional water bodies
  - Coastal water bodies
  - Canals
- National borders

Cities:
- 100,000 - 250,000 inhabitants
- 250,000 - 1,000,000 inhabitants
- > 1,000,000 inhabitants

Vienna, September 2011
ICPDR response to floods: Flood Action Programme

Action Programme on Sustainable Flood Protection in the Danube River Basin adopted in 2004

Igor Liska (ICPDR)
Action Programme – Basin-wide targets

- Improvement of flood forecasting and early flood warning systems (linking of national/regional systems, EFAS)
- Preparation and coordination of sub-basin flood action plans
- Creating forums for exchange of expert knowledge
- Recommendation for a common approach in assessment of flood prone areas and evaluation of flood risk

Igor Liska (ICPDR)
Action plans for sub-basins

17 flood action plans for the sub-basins prepared in 2009;

First comprehensive overview of hundreds of measures to reduce flood risks ever prepared in DRB.
Danube Declaration 2010

- Adopted by the Danube ministers;
- Flood protection is not short-term task but permanent task of highest priority;
- Commitment to implement EFD and develop flood risk management plan(s) for DRBD.

Igor Liska (ICPDR)
EFD implementation

Preliminary flood risk assessment Art 4 (1)

- MS shall undertake PFRA according to Art 4(2)
- Maps of the RBD;
- Description of past floods having significant adverse impacts on human health, the environment, cultural heritage and economic activity (including their flood extent and conveyance routes and an assessment of the adverse impacts they have entailed);
- Assessment of the potential adverse consequences of future floods

Igor Liska (ICPDR)
EFD implementation

Areas of potential significant flood risk Art 5

- On the basis of PFRA, MS shall, for each RBD, identify those areas for which they conclude that potential significant flood risks exist or might be considered likely to occur.
- The identification of areas belonging to an international river basin district, or to a unit of management referred to in EFD Article 3(2)(b) shared with another MS, shall be coordinated between the Member States concerned.
Basic understanding of „coordination“: between information and harmonisation

- Preliminary flood risk assessment *(FRMD Art. 4(3))*
  - *exchange of information*

- Potential significant flood risk areas *(FRM Directive, Art. 5(2))*
  - *coordination*

- Flood hazard maps (FHMs) and flood risk maps (FRMs) *(FRM Directive, Art. 6(2))*
  - *prior exchange of information*

- Flood risk management plans *(FRM Directive, Article 8(2))*
  - *coordination*
The FP EG agreed on ToC of PFRA report on the level A, definition of transboundary APSFR and in cooperation with the IM/GIS EG on the content and geometry types for the APSFR map;

The report and map have been prepared by the Secretariat using the contributions by countries;

The report has been approved by the ICPDR via a written procedure and was sent to EC as an informal communication by 22 March 2012.

Igor Liska (ICPDR)
PFRA report

- Introduction;
- Overall approach and methodology of PFRA;
- Historical floods in the Danube River Basin;
- Potential adverse consequences of future floods;
- APSFR (national/DRBD);
- Addressing the impacts of climate change;
- Transboundary coordination & information exchange;
- Supporting transboundary activities;
- Conclusions.

Igor Liska (ICPDR)
Transboundary APSFR

Transboundary APSFR is any area (in the transboundary reach of a river) which has been assigned as transboundary APSFR by at least one country and this assignment was discussed at the bilateral level.

If the transboundary character of an APSFR is regarded as not yet agreed by one country, this will be shown on the map.

For a river crossing a border, the area of common interest will be assigned as transboundary APSFR. The extent of this area of common interest has to be agreed by the neighbouring countries.

Igor Liska (ICPDR)
PFRA data geometry types

- **Polygon:** Recommended for areas $\geq 100\text{km}^2$
- **Line:** Recommended for river stretches $\geq 50\text{km}$.
- **Point:** Recommended for areas $<100\text{km}^2$ and river stretches $<50\text{km}$.
# APSFR map

<table>
<thead>
<tr>
<th>Description in legend</th>
<th>Colour on map</th>
</tr>
</thead>
<tbody>
<tr>
<td>National APSFR</td>
<td>red</td>
</tr>
<tr>
<td>Transboundary APSFR (agreed)</td>
<td>orange</td>
</tr>
<tr>
<td>Transboundary APSFR (under discussion)</td>
<td>purple</td>
</tr>
</tbody>
</table>
The APSFR map sent to the EC in March shows the status as of 31 January 2012 with some data missing or having a preliminary character;

Missing data were agreed to be submitted by 31 July 2012;

Slovakia updated the APSFR map but further data are needed from Slovenia, Bulgaria and Croatia;

FP EG urged the countries to update the map so that the final version can be sent to EC.
Thank you for your attention!

www.icpdr.org
icpdr@unvienna.org

Igor Liska (ICPDR)