ICPDR Strategy on Adaptation to Climate Change for the Danube River Basin

Raimund MAIR
International Commission for the Protection of the Danube River (ICPDR)
Raimund.MAIR@unvienna.org | www.icpdr.org
Catchment Area: 800,000 km² | 80 Mio. People | 19 Countries | Most international River Basin in the World
Danube River Protection Convention

signed 29 June 1994, Sofia (Bulgaria)

Protection of water & ecological resources
Sustainable use of water
Reduce nutrients & hazardous substances
Manage floods & ice hazards

ICPDR coordinates implementation of EU Water Framework Directive & EU Floods Directive on basin-wide level
Climate change adaptation
Starting point

CLEAR POLITICAL MANDATE
to get active on climate change adaptation!

- (...) impacts of climate change will increase and develop into a significant threat in the Danube River Basin
- ask the ICPDR to develop until 2012 a Climate Adaptation Strategy in the Danube River Basin (...) and ensure that climate adaptation issues are fully integrated in the second Danube River Basin Management Plan in 2015
Climate Change Adaptation

Main steps

**Step 1** (during 2011)
Danube Climate Adaptation **STUDY**

- Creation of common knowledge base
- Summary of existing information on expected impacts and possible adaptation measures

**Step 2** (March 2012)
Climate Adaptation **WORKSHOP**

- Presentation and discussion of Study results
- What is relevant for basin-wide level?
- First discussions on contents of Strategy

**Step 3** (December 2012)
Danube Climate Adaptation **STRATEGY**

- Elaboration of Strategy developed with input from different experts
- Adopted in December 2012

**Step 4** (until 2015)
Implementation of Strategy

- Making Strategy operational
- Implementation in 2nd Danube River Basin Management Plan and 1st Danube Flood Risk Management Plan
Danube Climate Adaptation Strategy

Main elements

ICPDR Strategy on Adaptation to Climate Change

Chapters:

1. Introduction
2. Framework conditions
3. Climate change scenarios
4. Water-related impacts
5. Vulnerability
6. Overview of possible adaptation measures
7. Guiding principles on adaptation and integration into ICPDR activities
8. Next steps
Some key challenges and ICPDR approach (1/4)

Challenge: Heterogenic knowledge base

Approach:

- STUDY, summarising and assessing all existing information on climate change and adaptation for the whole basin
- Discussion in international workshop with interdisciplinary team for creation of common understanding on basin-wide scale and acceptance of results
- Basis for elaboration of STRATEGY

Example: Scenario for precipitation for the Danube River Basin
Some key challenges and ICPDR approach (2/4)

Challenge: What is relevant to be coordinated on basin-wide level?

Approach:

- Based on study results, discussion on issues relevant to be coordinated on basin-wide scale or national level

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<thead>
<tr>
<th>Result</th>
<th>Working Group 2</th>
<th>Working Group 1</th>
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Discussion at workshop on issues relevant for basin-wide or national level
Some key challenges and ICPDR approach (3/4)

Challenge: Coordination between different sectors and different levels of management

Approach:

- Making use of existing structures and water management instruments for coordination already required by IWRM and incorporation of climate change

Coordination between international, national and sub-national level

Mainstreaming of adaptation in different expert bodies and working groups
Some key challenges and ICPDR approach (4/4)

**Challenge:** What can be achieved in first step under existing uncertainty?

**Approach:**

- Step-wise and cyclic approach - 6-years planning cycle according to Management Plans of EU Water Framework and EU Floods Directive
- Update of Strategy in 2018 (2012 + 6 years)

Incorporation of climate adaptation measures in cyclic Management Plans according to EU Water Framework and EU Floods Directive for the Danube basin

Next (updated) management plans → 2015
Lessons learned

- Clear **political commitment crucial** for working on the issue
- **Joint understanding** (i.e. on scenarios and related impacts) and shared knowledge base is essential for **joint decision making** in a trans-boundary basin
- Making best use of **existing structures** and water management instruments
- Coordination requirements – climate change is cross-cutting issue (like IWRM), requiring **interdisciplinary approach**
- **Decision making process** on adaptation measures to be **embedded** in different (water management) disciplines but **exchange and coordination** has to be ensured
- Not all problems can be solved immediately (uncertainties, knowledge gaps, etc.), suggesting a **step-wise and adaptive approach**
Thank you for your kind attention!

ICPDR Climate Adaptation Strategy available at

http://www.icpdr.org/main/activities-projects/climate-adaptation

Raimund.MAIR@unvienna.org

“Water and its availability and quality will be the main pressures on, and issues for, societies and the environment under climate change”

(IPCC Technical paper “Climate Change and water”, June 2008)