

Streamlining Climate Change Adaptation into RBM: European Perspective



6th Sharing & Learning Seminar
Asia Pacific Adaptation Network
Mainstreaming Climate Change Adaptation into RBM
27 June 2011, Bangkok (Thailand)

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Climate Change in Europe

1994: UN Framework Convention on Climate Change

2005 : Stern Review

- ⇒ CC adaptation in developed countries is still at an early stage
- ⇒ Governments take guiding role to adapt in medium and long term

2007: European Commission Green Paper on adaptation

- ⇒ Early reaction needed
- ⇒ Call to integrate CC adaptation into existing EC policy

2009: European Commission White Paper on CC

- ⇒ Two-phase strategic approach to adapting to impacts of CC in EU
- ⇒ EU MS should take integrated & coordinated approach actions
- ⇒ Direct link to river basin management under the EU Water Framework Directive (does not address CC explicitly)

Climate Change in Europe

In Europe regional differences in CC impacts are relatively well understood

South & South-East Europe:

- ⇒ Increased water shortage and drought conditions in summer

Central Europe

- ⇒ Possible decrease in summer precipitation

East and Northern Europe

- ⇒ More frequent flood events

Western Europe:

- ⇒ Increase in flood events in winter
- ⇒ Increased drought events in summer
- ⇒ **Alpine regions** (in particular Alps): loss of snow and ice decrease
- ⇒ **Coastal areas:** sea water level increase

Applied RBM Example: Actions Related to Climate Change Adaptation in the Danube River Basin

//// Deutschland //// Österreich //// Česká republika //// Slovensko //// Magyarország //// Slovenija //// Hrvatska //// Bosna i Hercegovina //// Srbija //// Crna Gora //// România //// България //// Moldova //// Україна ////

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Danube River Basin From the Black Forest to the Black Sea

icpdr iksd

International
Commission
for the Protection
of the Danube River

Internationale
Kommission
zum Schutz
der Donau



ICPDR

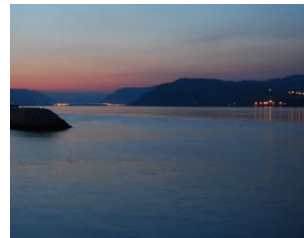
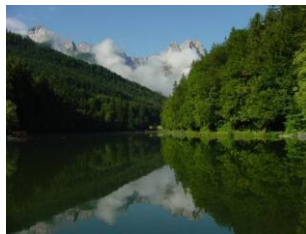
icpdr iksd
International
Commission
for the Protection
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der Donau



International Commission for the Protection of the Danube River = Coordination platform in the Danube River Basin (15 countries)

ICPDR is coordinating body for the implementation of the

- ⇒ **EU Water Framework Directive** and the
- ⇒ **EU Floods Directive**



Flexible & Adaptive Planning Instruments



EU Water Framework Directive (WFD) and EU Floods Directive (EFD) considered as key tools for transboundary cooperation and for the adaptation of the water sector to climate change.

Directives constitute flexible and adaptive planning instruments:

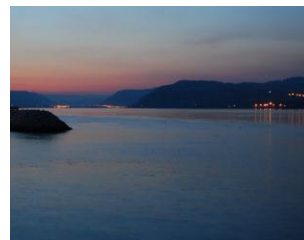
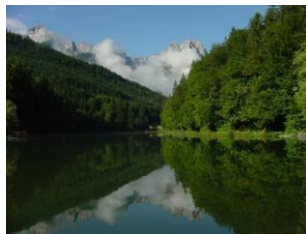
- ⇒ **Integrated approach**
- ⇒ **6 years planning cycles** for the development and update of River Basin Management Plans (WFD) and Flood Risk Management Plans
- ⇒ Legal requirement of international coordination across the whole river basin
- ⇒ Public participation requirements

Different steps and tools towards CC adaptation



Actions of the ICPDR recognising climate change

- ⇒ **December 2007:** Conference on Adaptation of Water Management to Effects of Climate Change in the Danube River Basin (Vienna)
- ⇒ **December 2009:**
Endorsement of the WFD Danube River Basin Management Plan
- ⇒ **February 2010:** ICPDR Ministerial Meeting
- ⇒ EU Danube Strategy

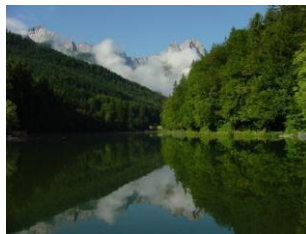


2007 ICPDR Conference Conclusions



Climate change impacts

- ⇒ **are an issue** of Danube River basin-wide significance
- ⇒ will be addressed by a **step-wise approach**
- ⇒ will be addressed respecting all Significant Water Management Issues (organic, nutrient, hazardous substances pollution and hydromorphology) for the Danube River Basin
- ⇒ will address the issues of flood protection, low water discharges, drought and land use



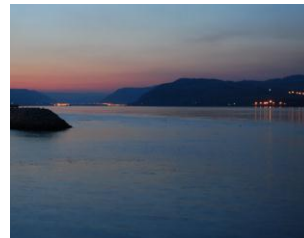
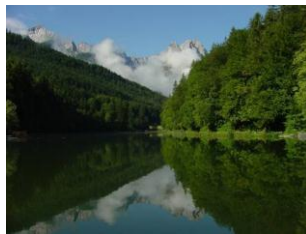
2009

First Danube RBM Plan



**Danube countries will develop approach and strategy to
ensure specified actions regarding
climate change adaptation**

- ⇒ Second and third cycles of DRB planning
 - ⇒ collect and ensure more evidence
 - ⇒ enable greater precision on the impacts of climate change
 - ⇒ fully integrate climate issues within planning



2009

First Danube RBM Plan



Specific **issues** in need for follow-up are **identified**

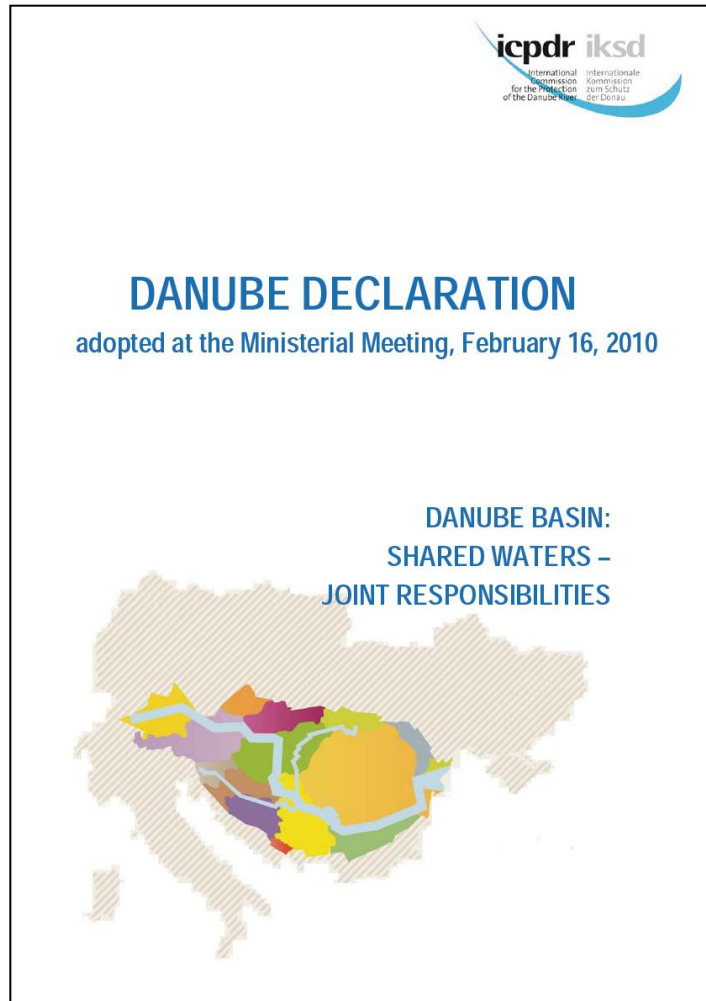
- > **Monitoring systems** ability to detect climate change impacts
- > **Effects** of climate changes on **ecology**
- > Foster the **improvement of models and scenarios**
- > **Effects** of climate change on the various **sectors, indirect impacts** on water status
- > Ensure that scientific **information** is ‘**translated**’ to water managers
- > **Integrate** all knowledge, results and lessons learnt related to climate change threats in the **next Danube River Basin Management Plan**

Way forward?

ICPDR Ministerial Meeting 2010



2010 Danube Declaration



- >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



EU Danube Strategy



Communication accompanied by Action Plan published
by EU Commission in December 2010

Danube Strategy Action Plan:

- > “To foster transnational cooperation via ICPDR in order to develop a **Climate Change Adaptation Strategy** for the Danube Region”

Deadline: End 2012

Implementing the Danube RBM Plan

Climate Change Adaptation



Step 1 (2011)
Danube Climate Change Study

- ➔ Based on existing studies / projects
- ➔ Summarising expected impacts on different sectors and providing proposals for adaptation measures



Step 2 (2012)
Danube CC Adaptation Strategy

- ➔ Adaptation Strategy based on CC study
- ➔ Input from sectors and stakeholders (workshop)



Step 3 (2015)
Implementation of Strategy

- ➔ *"Making Adaptation Strategy operational"*
- ➔ Implementation in 2nd River Basin Management Plan(s) and 1st Flood Risk Management Plan(s)

Next steps

ICPDR Climate Change Adaptation Strategy



Jan/Feb 2011: Establishment of a **Team of Experts**; Lead country: **Germany**

Jan - Dec 2011: **Climate Change Study**, financed by Germany, as basis for the strategy, **summarising information on existing models, scenarios and data on climate change** in the Danube basin

End 2011 / Beginning 2012: **Workshop**, broadly discussing results of the study and further basis for the development of the strategy

Jan – Dec 2012: Development and **finalisation** of **Adaptation Strategy** by the Team of Experts; Endorsement by ICPDR Heads of Delegation

Thereafter: Integration of climate issues in **2nd Danube River Basin Management Plan(s)** and **1st Flood Risk Management Plan(s)** to be finalised by December 2015



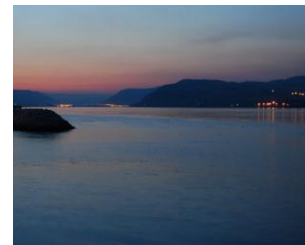
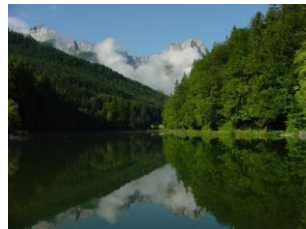
Climate Change Study

January – December 2011



4 work packages:

1. **Summary of existing and ongoing research and development projects** in the Danube River Basin on the adaptation of the water sector to climate change (scenarios, impact studies, risk analyses)
2. **Analysis and assessment of the collected material**
 - > Detection of similarities and overlaps, gap analysis, contradictions
3. Based on 1&2, **deduction of required actions for the adaptation** of the water sector to climate change on local, regional, national and international level

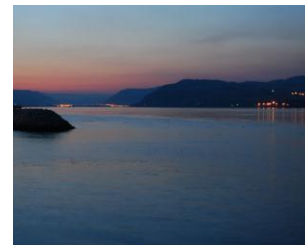
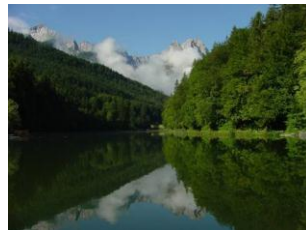


Climate Change Study January – December 2011



4. Development of **integrative concept** for **transboundary actions** for the **development of the Climate Change Adaptation Strategy**

- > On regional and national level
- > Detection of political, administrative and scientific capacities
- > Determination of responsibilities for implementation of strategy
- > Conflicts and solutions



Summary and Conclusions

- ⇒ Climate Change is recognised in Danube River Basin
- ⇒ Preparatory steps have been taken
- ⇒ Way forward is determined and agreed by countries
- ⇒ Climate Change Adaptation Strategy until end 2012
 - ⇒ Based on climate change study for the Danube basin (2011)
- ⇒ Integrate climate change issues in existing adaptive planning instruments by end 2015 and beyond



THANK YOU!

