

Adaptation in an international river basin-Danube case

Workshop on Water and Climate
Adaptation

Amsterdam 1-2 July 2008



- ~9% from Europe
- 81 Mil. inhabitants
- 19 countries

Most international river basin in the world

97.8 % of the Romanian surface are included in the Danube River Basin

30% of the Danube River Basin is in Romania



The Danube River Protection Convention

- **Signed 29. June 1994**
- **Entry into force 22. October 1998**
- **Permanent Secretariat since 1 October 1999**

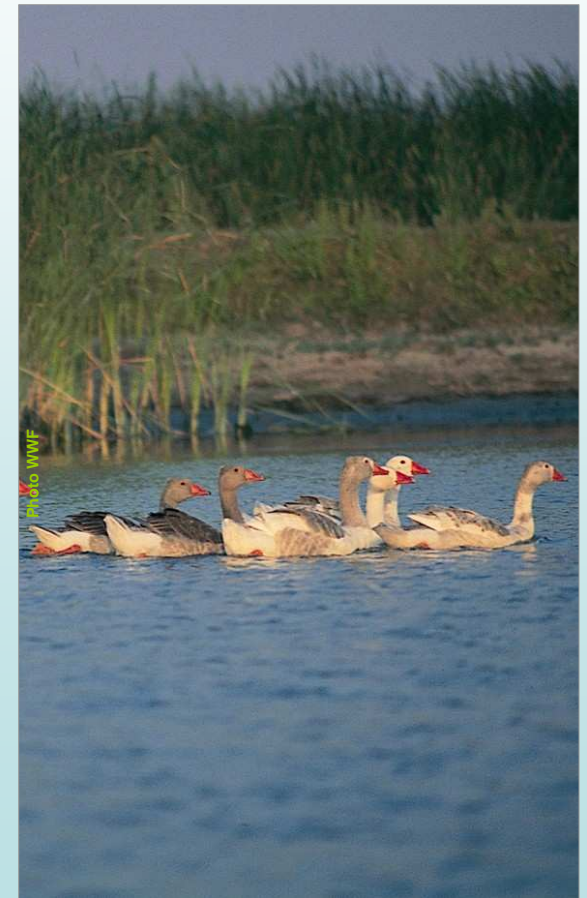
**A legal frame for co-operation to assure
the protection of water and ecological
resources and their sustainable use in the
Danube River Basin**

DRPC - objectives

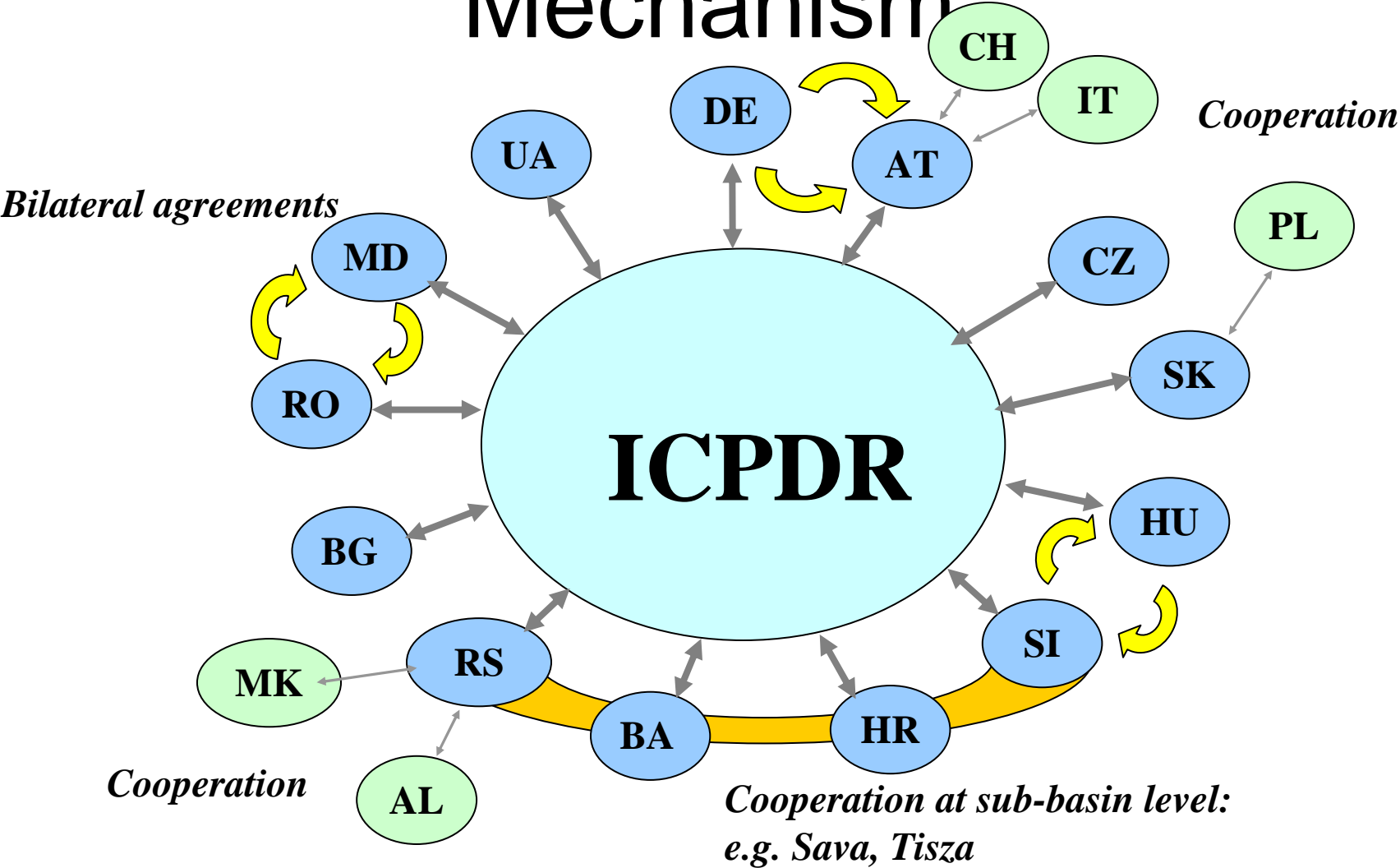
- strengthen international cooperation
- ensure **sustainable water management**
- ensure conservation, improvement and **rational use of** surface waters and ground **water**
- reduce inputs of nutrients and hazardous substances
- **control floods and ice hazards**
- reduce pollution loads of the Black Sea

The International Commission for the Protection of the Danube River (ICPDR)

**has been established to implement the
objectives and provisions and to
achieve the goals of the Danube River
Protection Convention**



Coordination Mechanism





Exemplu concret de rupere a unui dig, ceea ce evidentiaza necesitatea implementarii noului mod de amenajare a raurilor



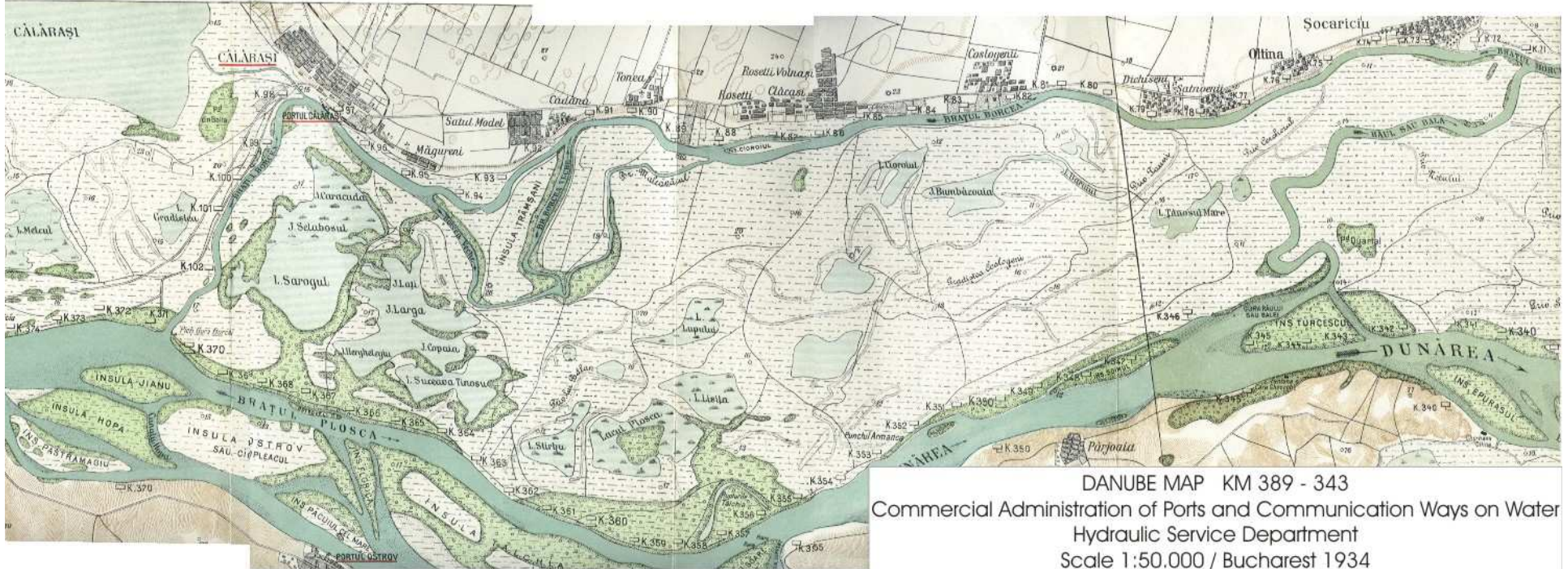
*Bazinul hidrografic Timis
20-21 aprilie 2005*









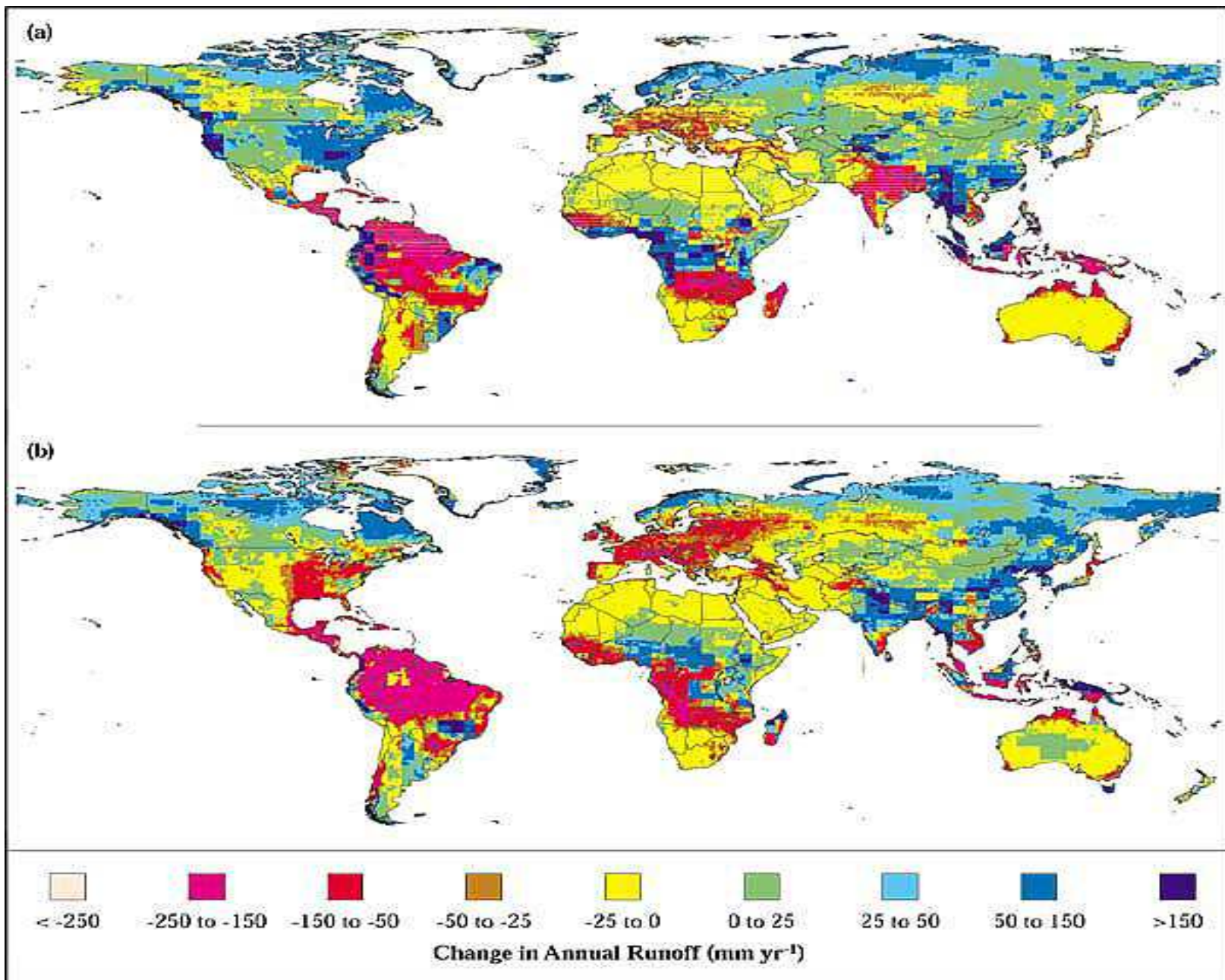


DANUBE MAP KM 389 - 343
 Commercial Administration of Ports and Communication Ways on Water
 Hydraulic Service Department
 Scale 1:50.000 / Bucharest 1934









Effects

- Loss of human lives
- Threatened water supplies and human health
- Damage on the economy (agriculture, energy, industry, transport communications) **Food shortage ?**
- Impact on the environment

ICPDR Response

- Joint Action Programme
- Action Programme on Sustainable Flood Protection in the Danube River Basin
- Danube River Basin Management Plan

Conditions for success

- Willingness to cooperate
- Political commitment at the national level
- Good coordination
- Good scientific support
- Common agreed targets
- River basin approach

First results-2009

- Draft Danube River Basin Management Plan
- Harmonized legislation on floods assessment and management
- Development of the flood risk map for the Danube (project proposal)

Cooperation with the Black Sea



“Towards stronger partnership in water management
Danube Black Sea countries”, Feb 23, Bucharest

National approach

- Strengthening institutional framework
- Improving legislative framework
- Developing a long term strategy
- Increase research and development activities
- Establishing and implement adaptation measures

Developing a long term strategy

- to reduce vulnerability of the local communities and natural ecosystems
- to reduce effects on social and economic activities
- to provide a sustainable framework for further development
- to increase public awareness and public involvement

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Questions

- Which will be the extent of the climate change phenomena ?
- How rapid will be the changes?
- How to change the people behaviour on the short term ?
- How to change the economic development patterns ?
- How to avoid water conflicts ?

Dilemmas

- Economic instruments versus command and control legislation
- Structural versus non-structural measures
- Governmental decision versus public participation
- Dams and dykes versus wetlands restoration
- Economic and social development versus environmental protection



Thank you for your
attention!