

# WFD Implementation in the Danube River Basin

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# Danube River Basin

- 10% of Europe
- 81 mill. inhabitants
- 18 countries

**most international  
river basin  
in the world**



# Danube River Basin

## - some facts -

- Length of the Danube River: 2,780 km
- Size of the Danube River Basin: 801,463 km<sup>2</sup>
- Average discharge at its mouth: 6,500 m<sup>3</sup>/sec
- Largest tributaries:
  - Tisza River (ca. 157,186 km<sup>2</sup>)
  - Sava River (ca. 95,419 km<sup>2</sup>)

# Countries in the Danube River Basin

 Austria

 Bulgaria

 Croatia

 Czech Republic

 Germany

 Hungary

 Moldova

 Romania

 Serbia i Montenegro

 Slovakia

 Slovenia

 Ukraine

 Bosnia i Herzegovina

## Countries with territories < 2000 km<sup>2</sup>:

 Albania  Italy  Macedonia  Poland  Switzerland

# Danube River Protection Convention

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

*signed on June 29, 1994 in Sofia  
entered into force on October 22, 1998*

## 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

*Since October 1, 1999*



# CONFERENCE OF THE PARTIES

**Standing Working Group**

- co-ordinate the ICPDR work between meetings
- prepare main strategic issues for the ICPDR
- guide the activity of the Expert Groups

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

- Implementation of Danube River Protection Convention (DRPC)
- Decision making, management and coordination of regional cooperation
- Approval of the budget and annual work programme
- Follow up of activities and evaluation of results from Expert Groups
- Joint Action Programme

**UNDP/GEF  
Danube Regional Project**

- Creation of sustainable ecological conditions for land use and water mgmt
- Capacity building and reinforcement of trans-boundary cooperation
- Strengthening public involvement in environmental decision making
- Reinforcement of monitoring, evaluation and Information System

**Legal and Administrative issues (ad-hoc S EG)**

- Legal issues
- Administrative issues
- Financial issues

**Permanent Secretariat (PS)**

- Supporting the ICPDR sessions
- Supporting the Expert Groups
- Coordinating the work programme
- Supporting project development and implementation
- Maintenance of the Information System

**River Basin Management (RBM EG)**

- Integrated river basin management
- Implementation of the EU Water Framework Directive

**Emissions (EMIS EG)**

- Emissions from point sources
- Emissions from diffuse sources
- Guidelines on BAT

**Monitoring, Laboratory and Information Mgmt (MLIM EG)**

- Trans-National Monitoring Network
- Laboratory Quality Assurance

**Accident Prevention and Control (APC EG)**

- Accidental pollution incidents
- AEWS operation
- Accident prevention

**Flood Protection (FP EG)**

- Preparation and implementation of Action Plan for Sustainable Flood Protection

**Analysis (RBM / ECON ESG)**

**Danube – Black Sea Joint Technical Working Group**



# 3rd Plenary Session of the ICPDR - November 2000 -

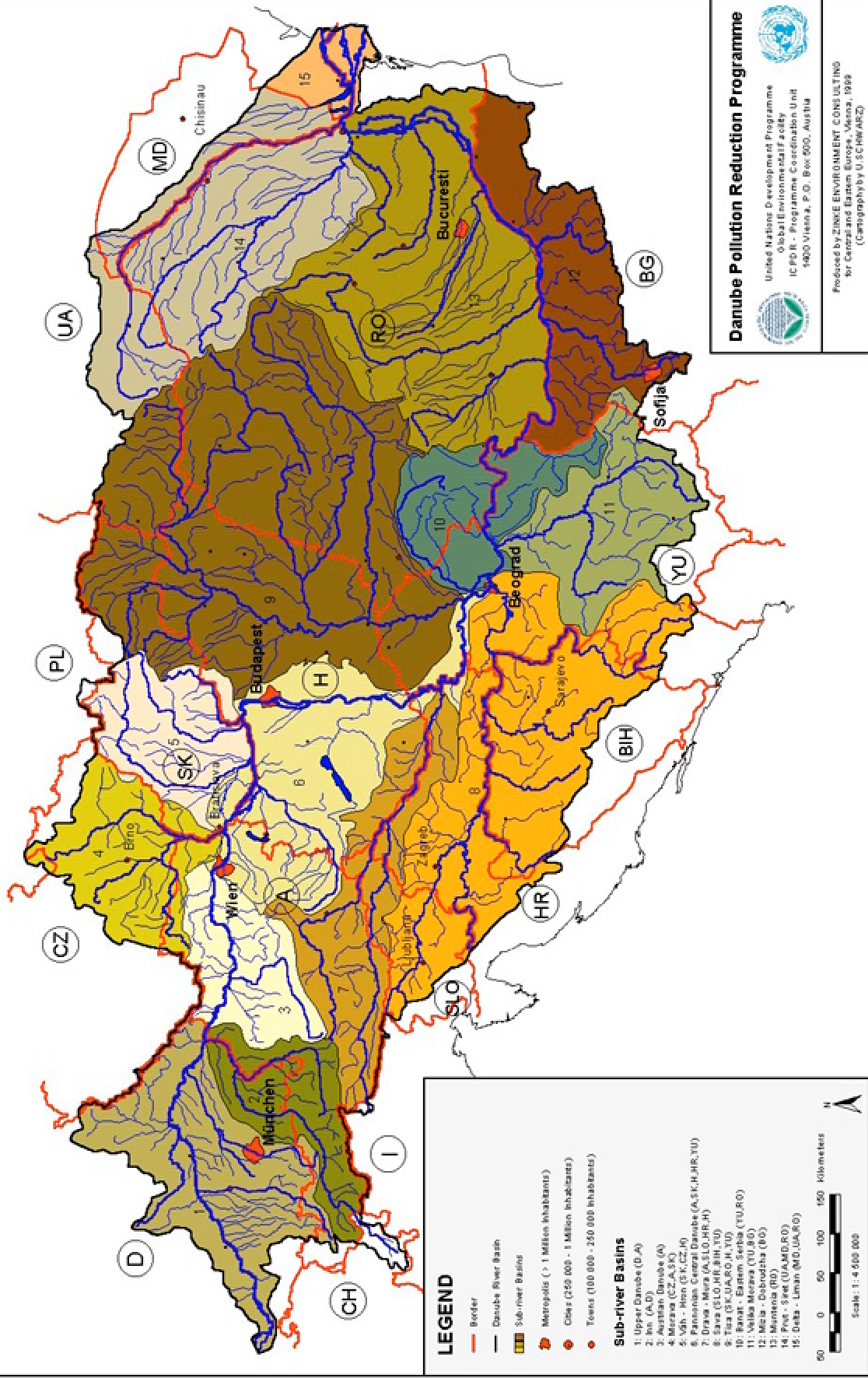
- Implementation of **WFD has highest priority** for ICPDR
- **ICPDR is platform for coordination**
- **Contracting Parties will make all efforts** to achieve a coordinated river basin management plan for the Danube River Basin





# Map 2: Sub-river Basins

Based on Transboundary Analysis Workshop 1999



# Levels of coordination

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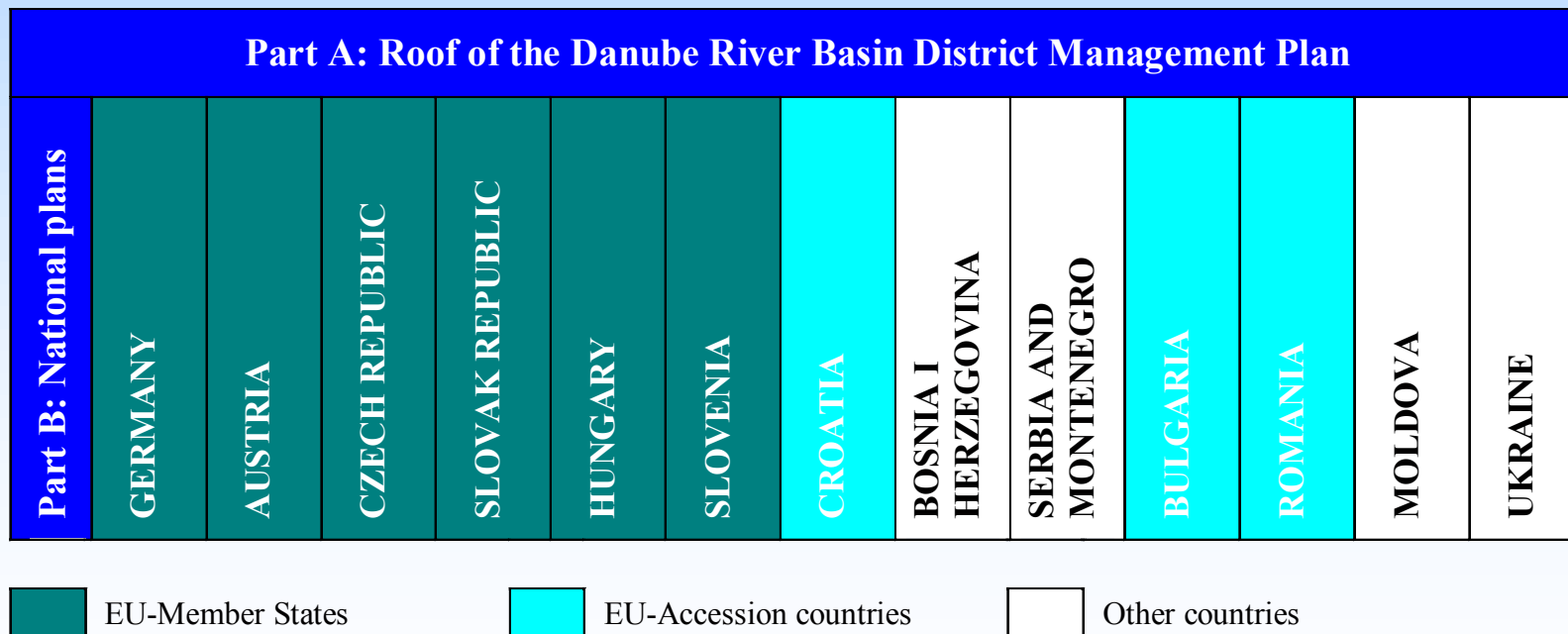
<b>Level</b>	<b>Amount of coordination</b>
• <b>Danube river basin level</b>	<b>limit to the absolutely necessary</b> <i>(issues relevant on the basin-wide scale)</i>
• <b>Bilateral/multilateral level</b>	<b>a lot</b> <i>(transboundary effects with mainly bilateral or sub-basin relevance)</i>
• <b>National level</b>	<b>a lot</b> <i>(for all issues regarding implementation)</i>

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# Structure of the report

Part A – Basin-wide overview (WFD Roof report)

Part B – Detailed national reports



# Danube Basin Analysis Report

responds to reporting requirements under WFD

Art. 5, Annex II and III WFD

- river basin characteristics
- impacts of human activities
- economic analysis of water uses

Art. 6 and Annex IV WFD

- inventory for protected areas

 Reporting deadline: 22 March 2005



# Part A: Basin-wide overview

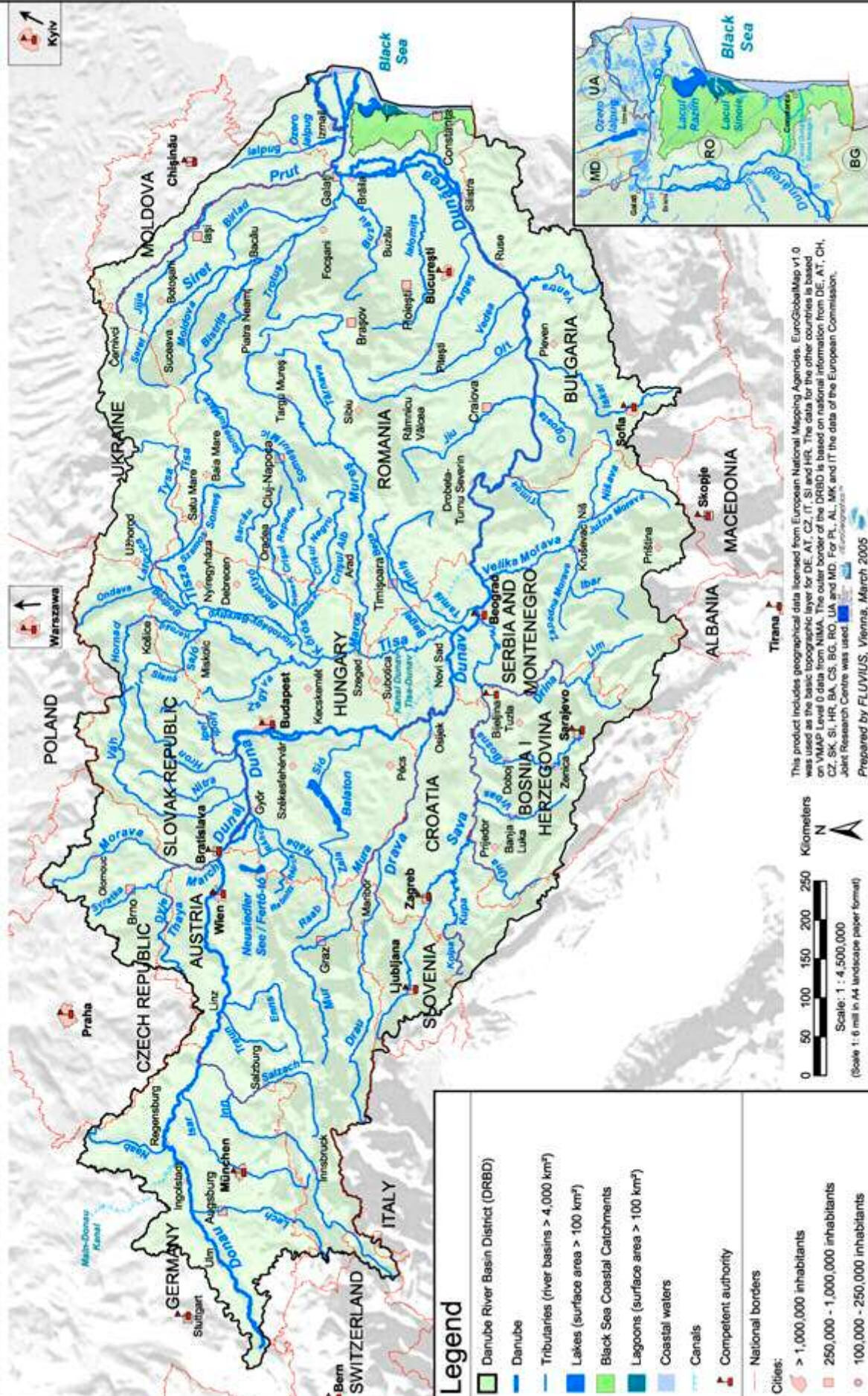
## The Roof report deals with

- all rivers with catchments of  $> 4000 \text{ km}^2$
- all lakes with an area of  $> 100 \text{ km}^2$
- transitional and coastal waters (overview)
- the main navigation canals
- all transboundary groundwater bodies with an area of  $> 4000 \text{ km}^2$

# Danube River Basin District

## Map 1: Overview

Product of:  
**icpdr** ikcsd  
 International Commission for the Protection of the Danube River, Vienna



### Legend

- Danube River Basin District (DRBD)
- Danube
- Tributaries (river basins > 4,000 km²)
- Lakes (surface area > 100 km²)
- Black Sea Coastal Catchments
- Lagoons (surface area > 100 km²)
- Coastal waters
- Canals
- Competent authority
- National borders

Cities:

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

This product includes geographical data licensed from European National Mapping Agencies. EuroGlobeMap v1.0 was used as the basic topographic layer for DE, AT, CZ, IT, SI and HR. The data for the other countries is based on VMAP Level 0 data from NIMA. The outer border of the DRBD is based on national information from DE, AT, CH, CZ, SK, SI, HR, BA, CS, BG, RO, UA and MD. For PL, AL, MK and IT the data of the European Commission Joint Research Centre was used.

Prepared by FLUVIUS, Vienna, March 2005

# Contents of the report

- The Danube River Basin District and its international coordination arrangements
- **Characterisation of surface waters**
- Characterisation of groundwaters
- Inventories of protected areas
- Economic analysis
- **Public information and consultation**
- Key conclusions and outlook

## **Key objective: to achieve comparable results throughout the basin**

### **Information used:**

- data and information officially delivered by the competent authorities of the Danube countries for the purpose of this report based on agreed criteria,
- published data from basin-wide studies, or
- modelled data (in particular for nutrient emissions) where comparable data was not available

 **in agreement with the Danube countries**



# Results of the pressure and impact analysis

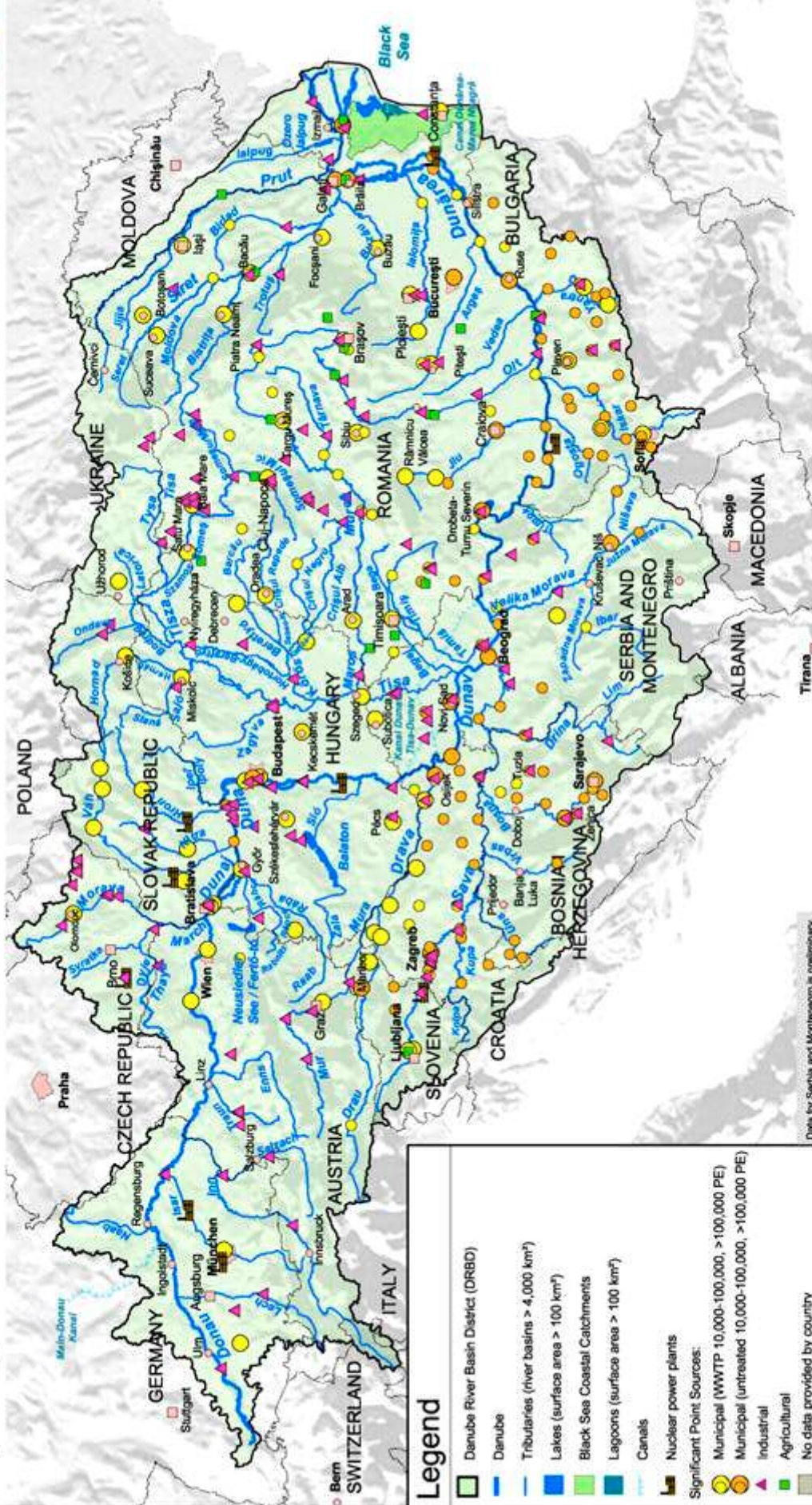
## Main pressures on the basin-wide scale:

- Organic pollution
- Nutrient pollution
- Hazardous substances
- Hydromorphological alterations

# Danube River Basin District

## Map 5: Significant Point Sources of Pollution

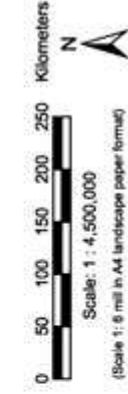
Product of:  
**icpdr** ikcsd  
 International Commission for the Protection of the Danube River, Vienna



Data for Serbia and Montenegro is preliminary.

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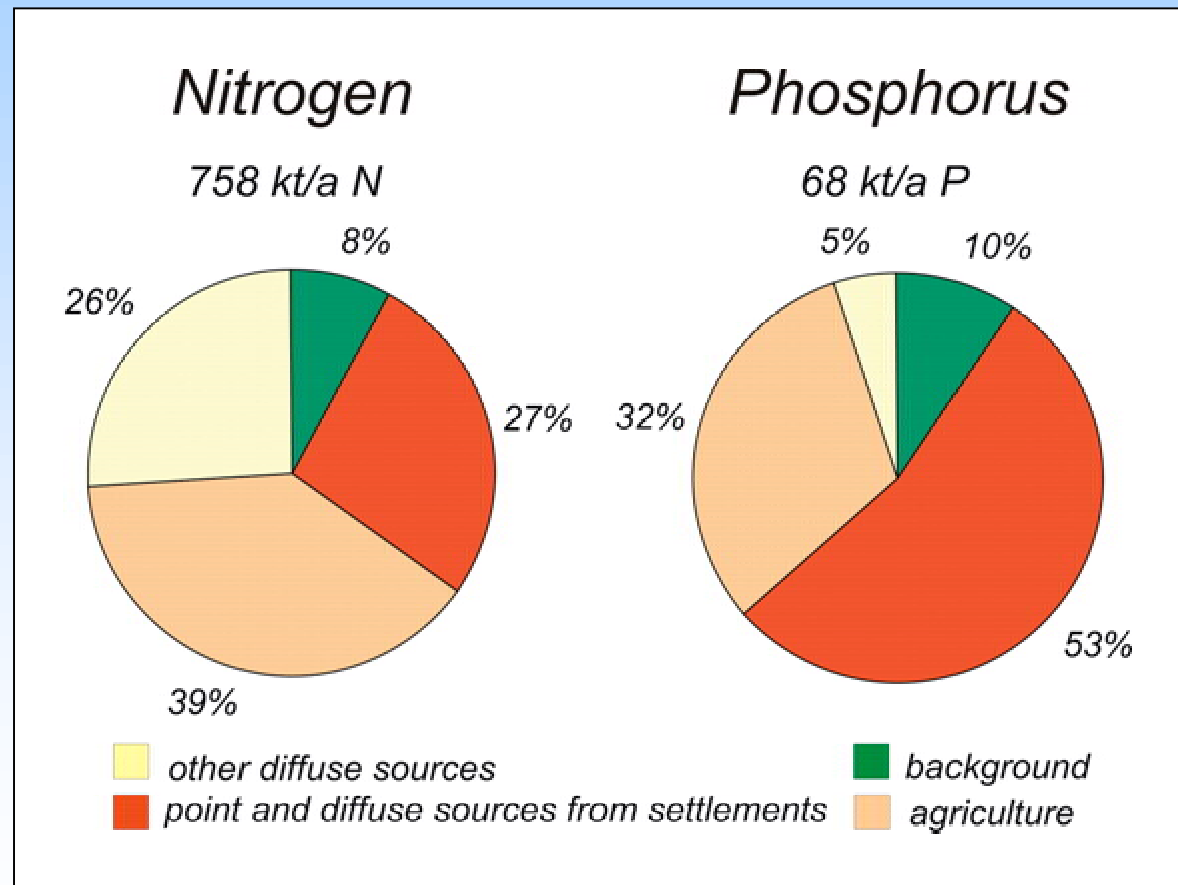
Prepared by FLUVIUS, Vienna, March 2005



Legend	
	Danube River Basin District (DRBD)
	Danube
	Tributaries (river basins > 4,000 km²)
	Lakes (surface area > 100 km²)
	Black Sea Coastal Catchments
	Lagoons (surface area > 100 km²)
	Canals
	Nuclear power plants
Significant Point Sources:	
	Municipal (WWTP 10,000-100,000, > 100,000 PE)
	Municipal (untreated 10,000-100,000, > 100,000 PE)
	Industrial
	Agricultural
	No data provided by country
National borders	
Cities:	
	> 1,000,000 inhabitants
	250,000 - 1,000,000 inhabitants
	100,000 - 250,000 inhabitants

# Diffuse sources of pollution

Nutrient emissions based on modelling for 1998-2000





# Risk of failure to reach the environmental objectives with regard to nutrients





# Hydromorphological alterations

## Identification of

- significant water abstraction for urban, industrial, agricultural and other uses
- the impact of significant flow regulation, incl. water transfer and diversion on overall flow characteristics and water balances
- significant morphological alterations to water bodies

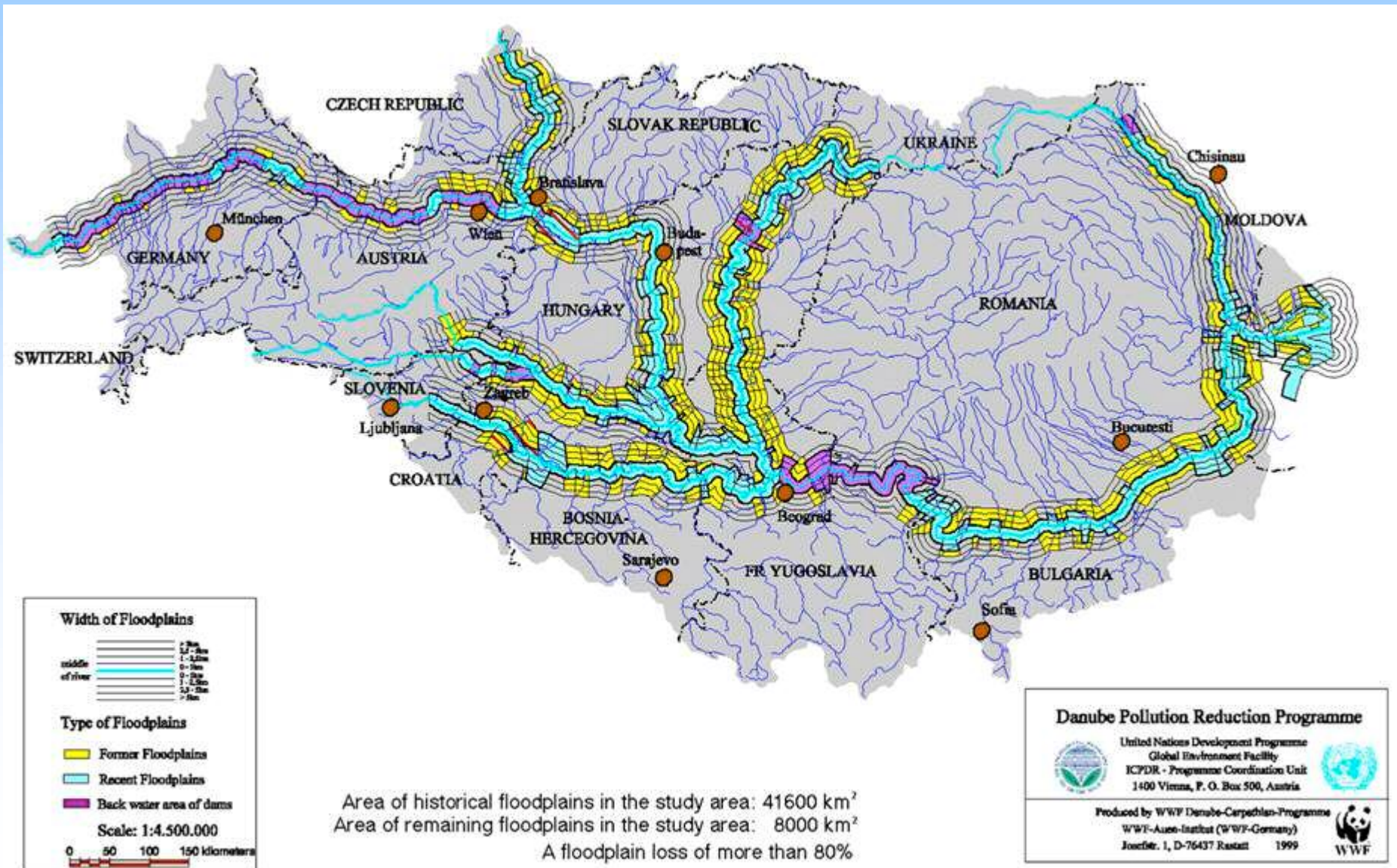
# Hydromorphological alterations

## Main driving forces

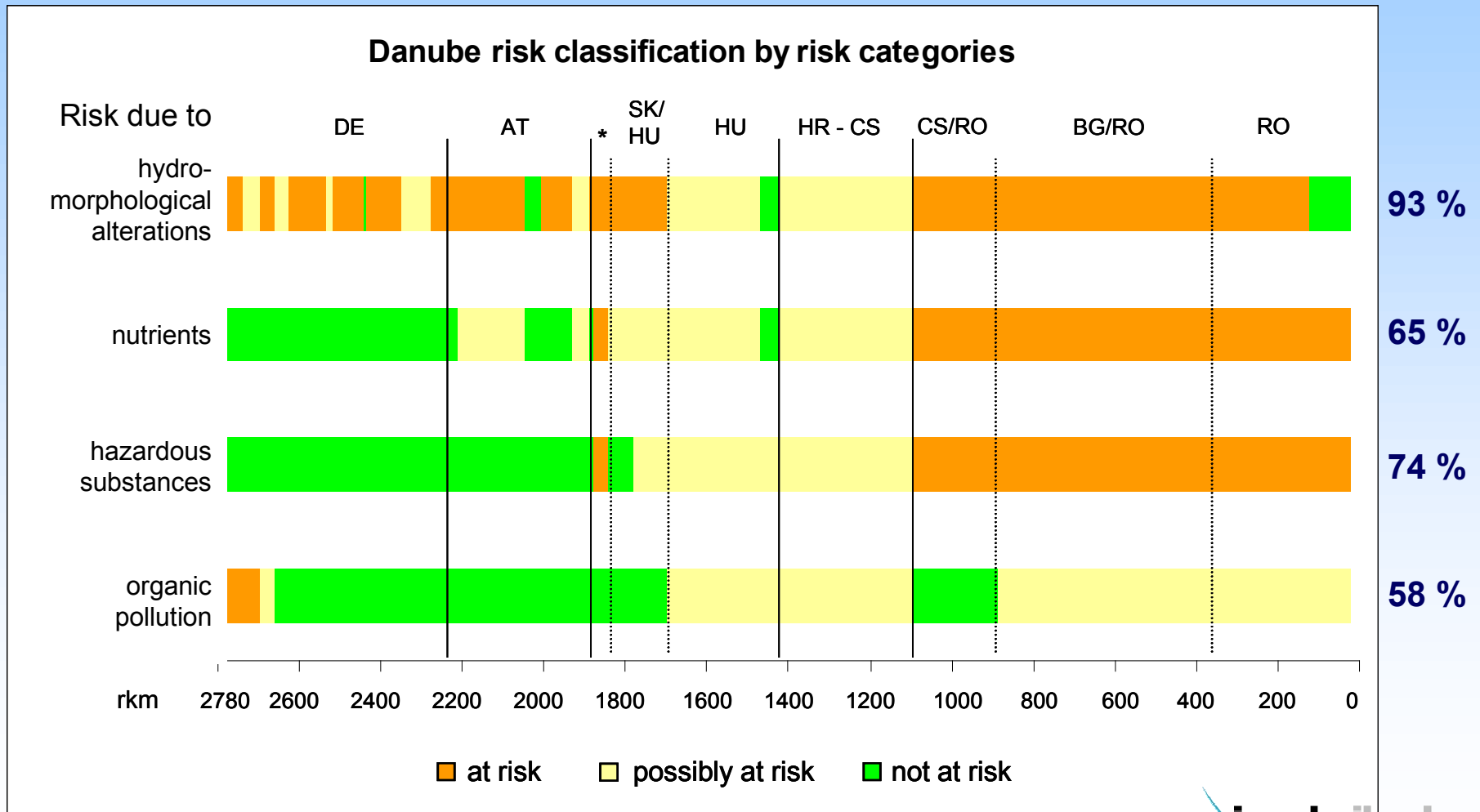
- Hydropower generation (mainly dams)
- Flood defense measures (river regulation works)
- Navigation and channel maintenance
- Future infrastructure projects

# Impacts from hydromorphological alterations

## Symbolised view of the loss of floodplains



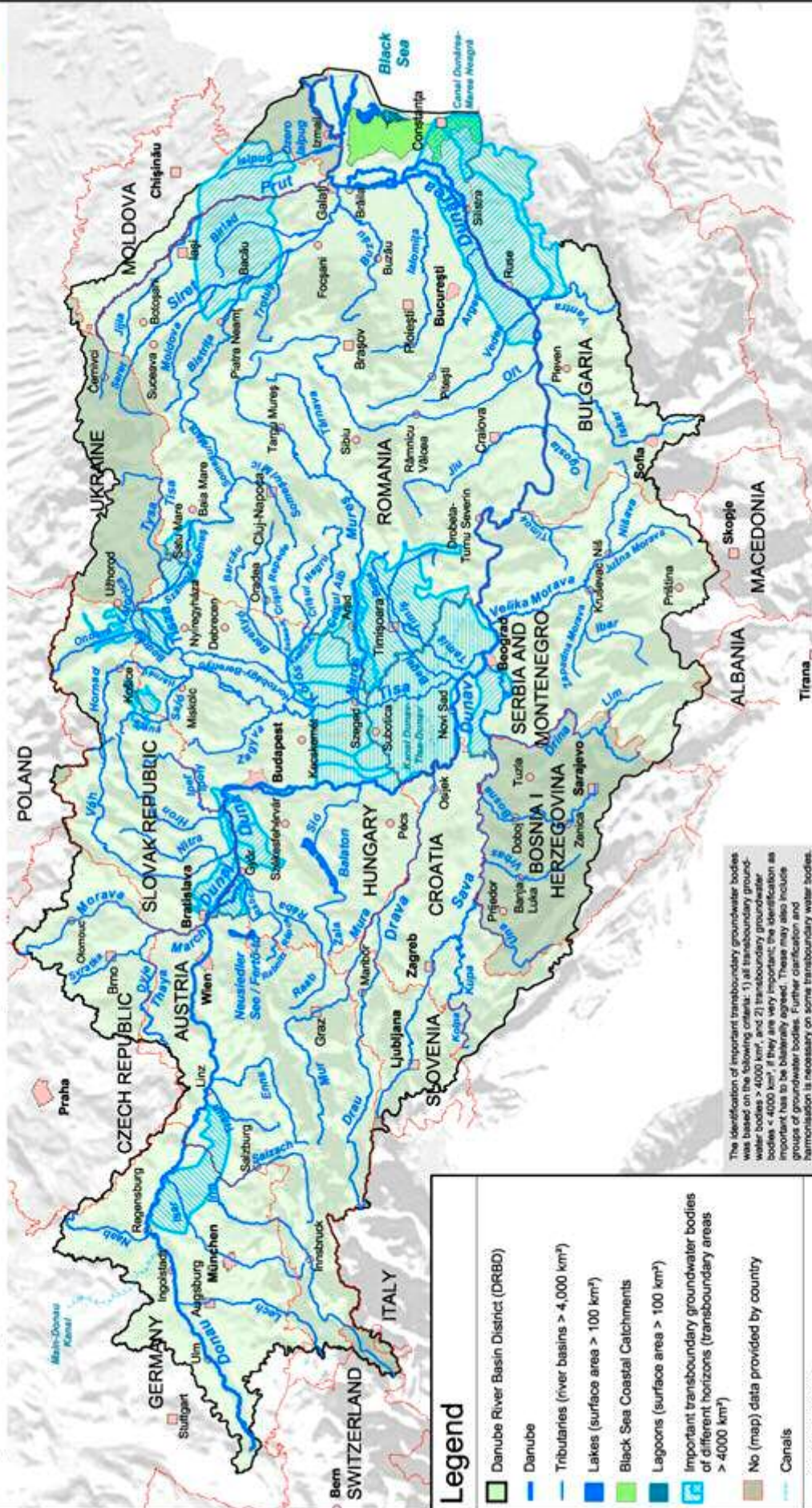
# Risk of failure to reach the environmental objectives on the Danube





# Danube River Basin District

## Map 15: Important Transboundary Groundwater Bodies



**Legend**

- Danube River Basin District (DRBD)
- Danube
- Tributaries (river basins > 4,000 km<sup>2</sup>)
- Lakes (surface area > 100 km<sup>2</sup>)
- Black Sea Coastal Catchments
- Lagoons (surface area > 100 km<sup>2</sup>)
- Important transboundary groundwater bodies of different horizons (transboundary areas > 4000 km<sup>2</sup>)
- No (map) data provided by country
- Canals
- National borders

**Cities:**

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

The identification of important transboundary groundwater bodies was based on the following criteria: 1) all transboundary groundwater bodies > 4000 km<sup>2</sup>, and 2) transboundary groundwater bodies < 4000 km<sup>2</sup>, if they are very important; the identification as important has to be bilaterally agreed. These may also include groups of groundwater bodies. Further identification and harmonisation is necessary on some transboundary water bodies.

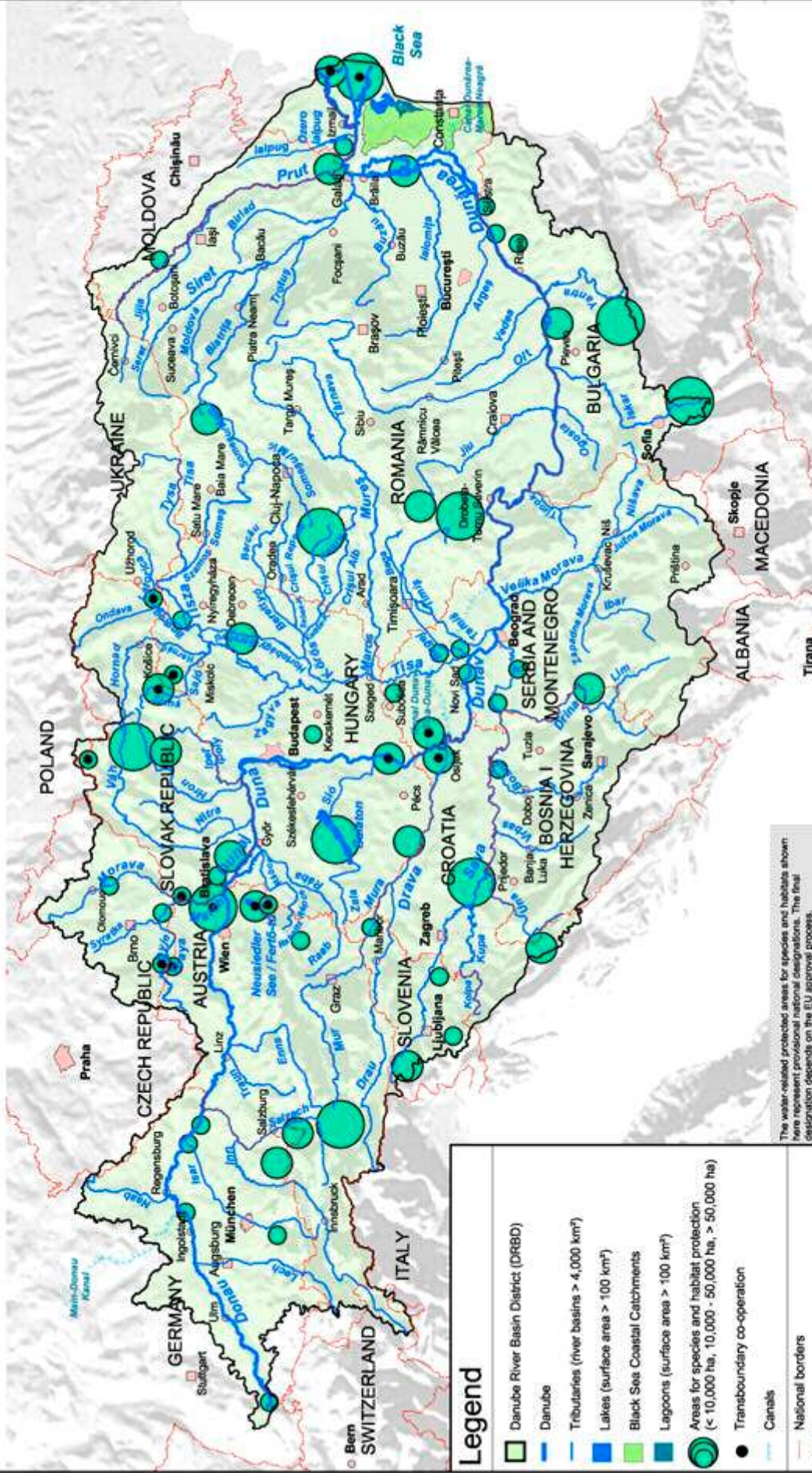
This product includes geographical data licensed from European National Mapping Agencies, EuroGlobalMap v1.0, as well as the basic topographic layer for DE, AT, CZ, IT, SI and HR. The data for the other countries is based on NADAP (vino) data from HR. The outer border of the DRBD is based on national information from DE, AT, CH, CZ, SK, SI, HR, BA, CS, BG, RO, UA and MD. For PL, AL, MK and IT the data of the European Commission, Joint Research Centre was used.

Prepared by FLUVIUS, Vienna, March 2005



# Danube River Basin District

## Map 16: Important Water-related Protected Areas for Species and Habitat Protection



**Legend**

- Danube River Basin District (DRBD)
- Danube
- Tributaries (river basins > 4,000 km<sup>2</sup>)
- Lakes (surface area > 100 km<sup>2</sup>)
- Black Sea Coastal Catchments
- Lagoons (surface area > 100 km<sup>2</sup>)
- Areas for species and habitat protection (< 10,000 ha, 10,000 - 50,000 ha, > 50,000 ha)
- Transboundary co-operation
- Canals
- National borders

**Cities:**

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

The water-related protected areas for species and habitats shown here represent provisional national designations. The final designation depends on the EU approval process.

0 50 100 150 200 250 Kilometers

Scale: 1 : 4,500,000

(Scale 1: 6 mil in A4 landscape paper format)

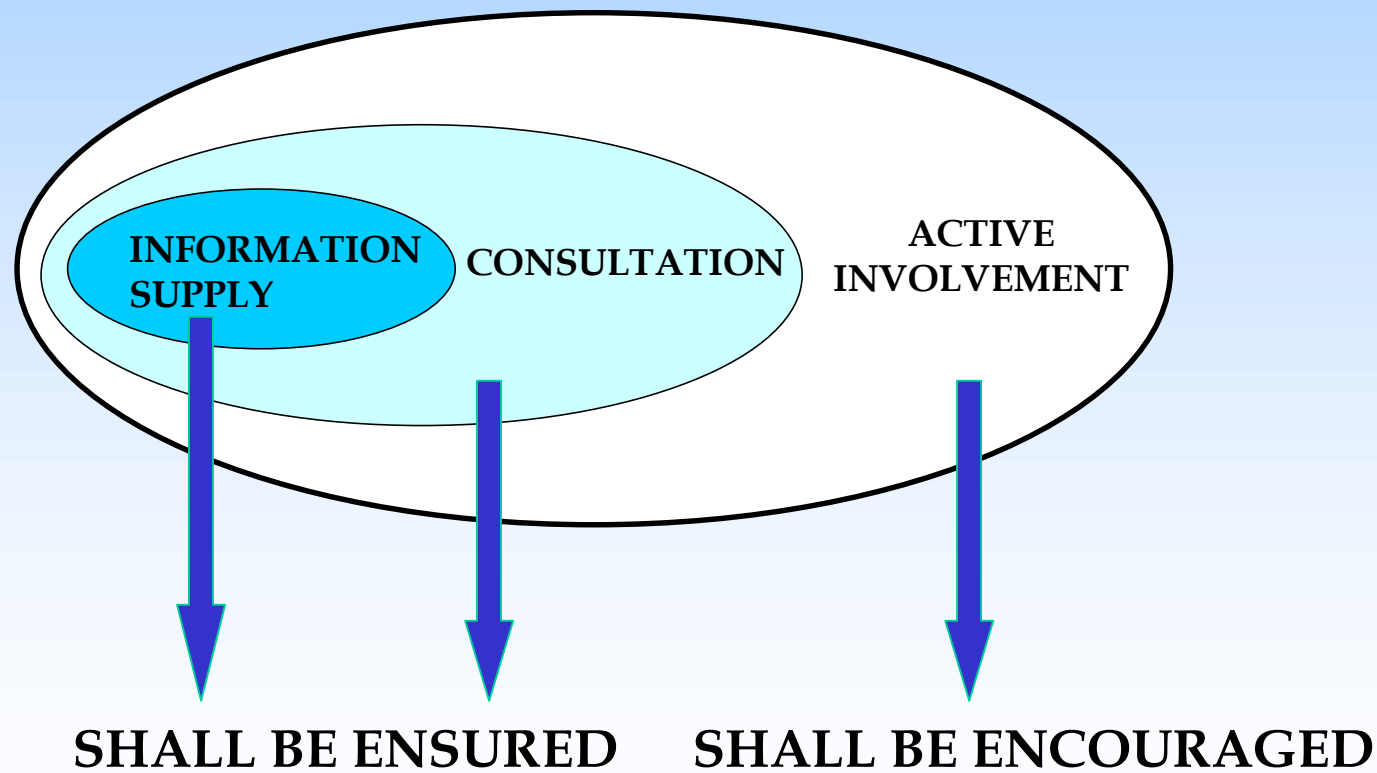
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This product includes geographical data licensed from European National Mapping Agencies, EuroGlobalMap v1.0 was used as the basic topographic layer for DE, AT, CZ, IT, SI and HR. The data for the other countries is based on VMAP Level 0 data from NINA. The outer border of the DRBD is based on national information from DE, AT, CH, CZ, SK, SI, HR, BA, CS, BG, RO, UA and MD. For PL, AL, MK and IT the data of the European Commission, Joint Research Centre was used. [www.icpdr.org](http://www.icpdr.org)

Prepared by FLUVIUS, Vienna, March 2005

# Public Participation

Levels of participation:



# What is Public Participation?

Allowing the public to influence the outcome of plans and working processes.

## **It IS NOT about:**

- everybody joining
- always participating
- everybody deciding
- losing control
- achieving consensus at all costs

## **It IS about:**

- management of expectations
- two-way communication
- no pre-determined outcome
- tailor-made (no blue print)
- feedback to participants

# Observers to the ICPDR



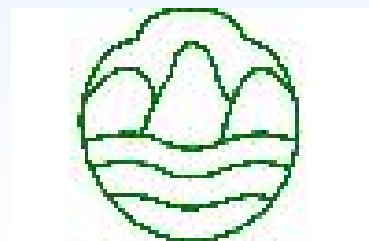
Black Sea Commission



UNESCO-IHP



Navigation Commission



REC



Danube Tourist  
Commission



# Stakeholder Conference

Date: 28-29 June 2005

Venue: Budapest

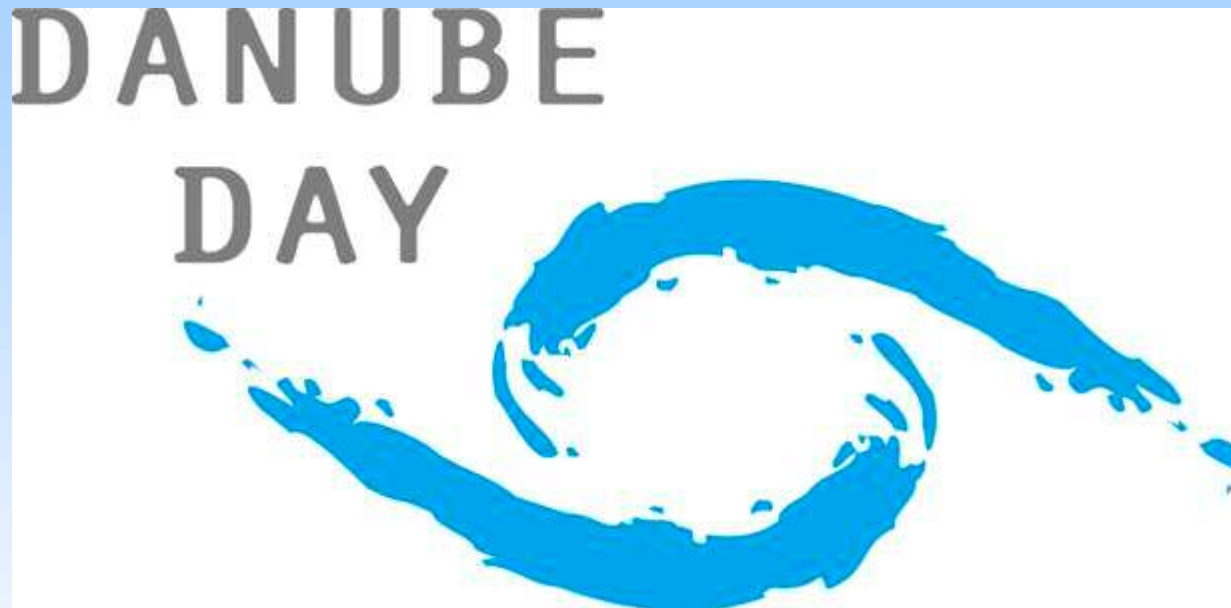
Participants: ca. 100

Goals:

- Provide an overview of the work of the ICPDR
- Present and discuss the ICPDR Public Participation Concept
- Present and discuss the Danube Basin Analysis Report
- Present and discuss the ICPDR Action Programme on Sustainable Flood Protection



# **Danube Day, June 29**



- **10<sup>th</sup> anniversary of signing the DRPC**
- **Events in all Danube Basin Countries**
- **Involvement of GOs, NGOs, private sector and others**



More than 100 events throughout the Danube with wide participation







For more information,  
please visit [www.icpdr.org](http://www.icpdr.org)