

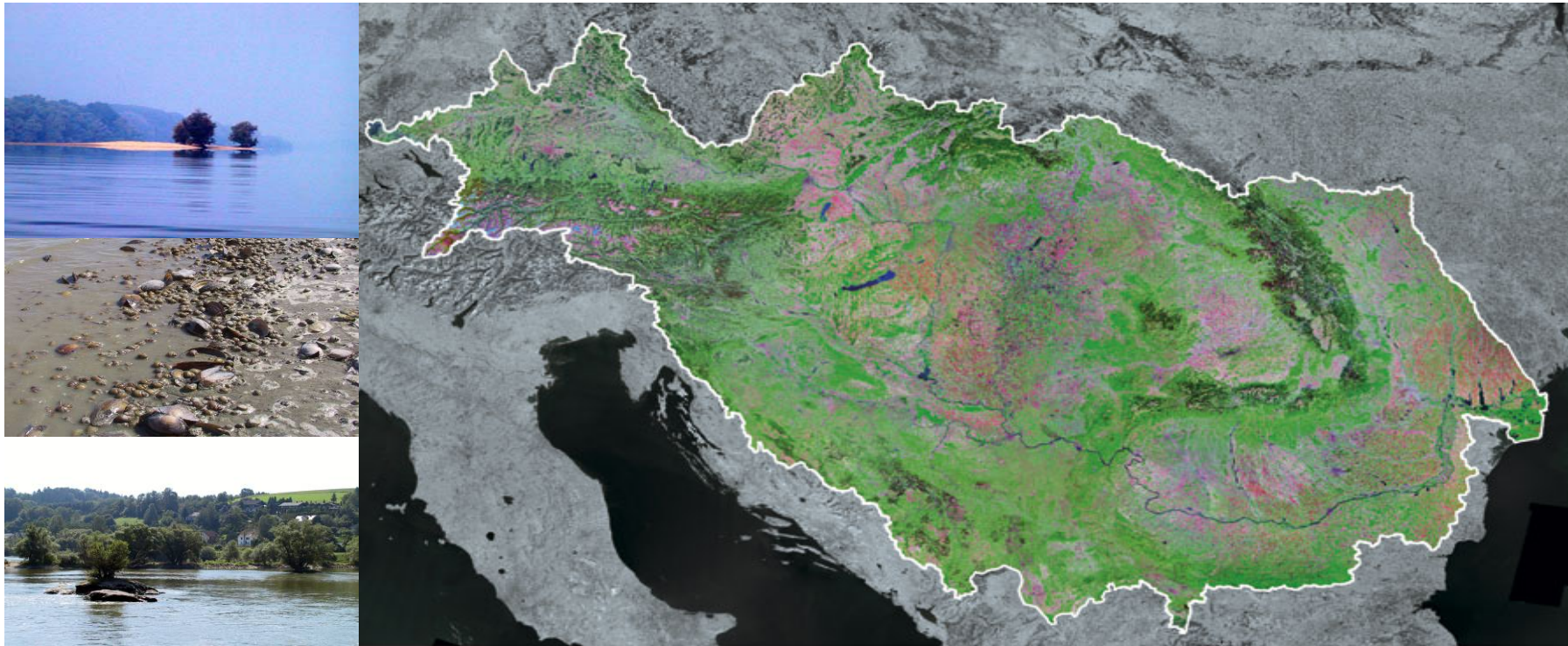
Overview on the Draft

icpdr ikzd

International
Commission
for the Protection
of the Danube River

Internationale
Kommission
zum Schutz
der Donau

Danube River Basin Management Plan



2nd ICPDR Stakeholder Forum

29 – 30 June 2009

Bratislava (SK)

Marieke van Nood (EC)

Knut Beyer (DE Environment Ministry)

Co-Chairpersons of the RBM EG

Content



- ⇒ The EU Water Framework Directive and the DRB
- ⇒ Basis of the Danube River Basin Management Plan
- ⇒ Draft DRBM Plan
 - ⇒ Structure and content
- ⇒ Overview on key results of the DRBM Plan

ICPDR – River Basin Management



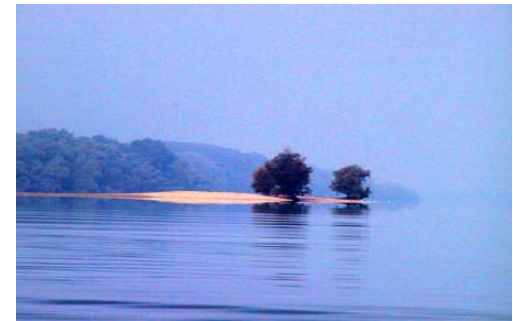
EU Water Framework Directive

⇒ implementation = highest priority for the ICPDR

⇒ obligatory for all EU MS

⇒ all other Danube states committed themselves

to implement (Sofia, December 2000)



EU WFD



Key Objectives

⇒ Achievement of good status/good potential for all

EU waters (surface and groundwater)

⇒ No deterioration of water status

⇒ Elaboration of international RBM Plans



DRBM Plan – 4 Phases



⇒ PHASE I: Identify Competent authorities

⇒ PHASE II: Danube River Basin Analysis

COMPLETED

⇒ PHASE III: WFD compliant monitoring network

COMPLETED

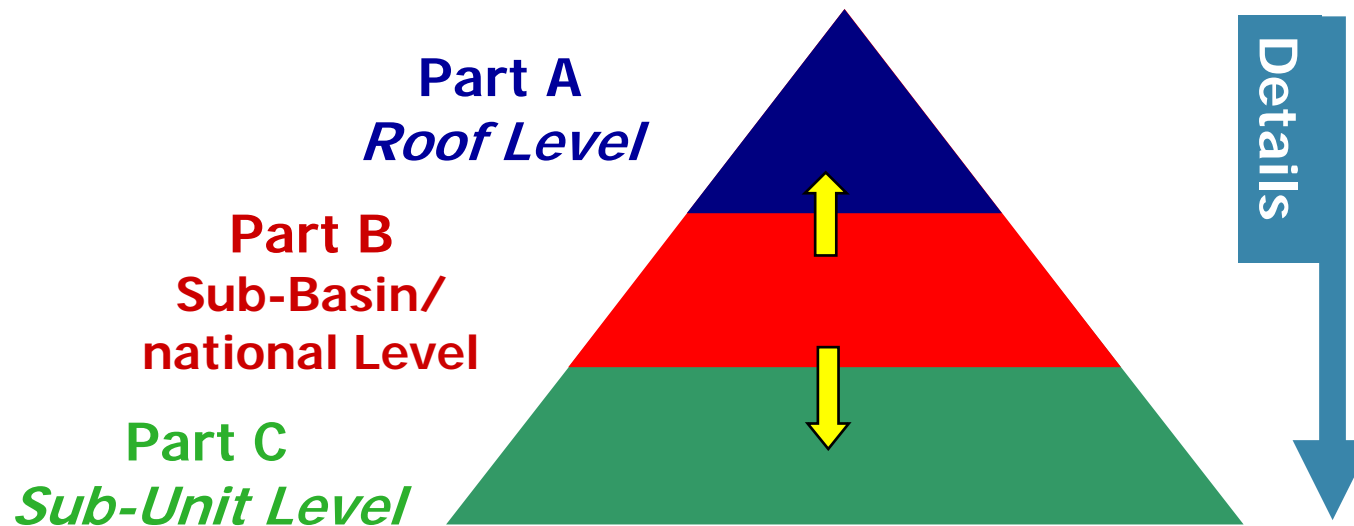
⇒ PHASE IV: Final RBM Plan

**CURRENTLY PERFORMED
TO BE COMPLETED 12/2009**

Danube River Basin Management Plan



1.has to be compiled by end 2009
2. good coordination mechanisms and a clear strategy including timelines are needed



Status of Draft DRBM Plan



- ⇒ The Draft Danube River Basin Management Plan has been adopted by the ICPDR Standing Working Group
14 May 2009
- ⇒ DRBM Plan Public Consultation Process until
end July 2009
- ⇒ Final Draft DRBM Plan by December 2009



DRBM Plan Genesis

The Basis



Identification

Significant Water Management Issues



Organic
Pollution



Nutrient
Pollution



Hazardous
Substances
Pollution



Hydromorphological
Alterations

- ⇒ Plus: Transboundary GW bodies of basin-wide importance
- ⇒ Identification enabled through Danube Basin Analysis 2004
 - ⇒ Basis for the development of the DRBM Plan

DRBM Plan

Visions and Management Objectives



Developed for each
Significant Water Management Issue
(outlined in draft DRBM Plan)

Innovative RBM approach for basin-wide issues to

- ⇒ guide toward joint aims in the DRB
- ⇒ have a coherent approach

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der Donau

DRBM Plan

Draft Key Results



DRBM Plan

Current Draft 6.0



⇒ **Discussed and elaborated by the ICPDR**

⇒ Dynamic process involving all Danube countries
via ICPDR Expert and Task Groups

⇒ **Structure according to the SWMIs and EU WFD**

⇒ **90 Pages**

⇒ **9 Chapters**

⇒ **19 Annexes**

⇒ **29 Maps**

DRBM Plan

Current Draft 6.0



⇒ **First time and unique overview on basin-wide issues**

- ⇒ Transboundary WFD implementation for largest international river basin district
- ⇒ Pressures/impacts for all SWMIs
- ⇒ Basin-wide analysis on wastewater treatment
- ⇒ Nutrient management on a large scale
- ⇒ HYMO alterations – first time overview

⇒ **Large scale data collection based on DanubeGIS**

Investigated surface waters:

Danube River Basin District : Overview

MAP 1

**Working map
status on 10 May 2009**

This draft map is part of the draft Danube River Basin Management Plan (May 2009) and might be revised after the public consultation process on DRBM Plan



DRBM Plan

Basic Results



- ⇒ **738 Water bodies**
 - ⇒ **728 River WBs / 61 River Danube River WBs**
 - ⇒ **5 Lake WBs (one of it transitional)**
 - ⇒ **2 Transitional WBs**
 - ⇒ **4 Coastal WBs**
- ⇒ **River WB network >4,000 km² = 20,882 river km**
- ⇒ **11 transboundary groundwater bodies of basin-wide importance**

DRBM Plan

Issues reflected



- ⇒ Revised basic characterisation (river and lake typology)
- ⇒ Pressure analysis
- ⇒ DRB status assessment
 - ⇒ validation of the former risk assessment
- ⇒ Overview on exemptions (WFD Article 4)
- ⇒ Economic analysis of water uses
- ⇒ Joint Programme of Measures
- ⇒ Climate changes and water quantity issues in DRB
- ⇒ Inventory of protected areas

DRBM Plan

Joint Programme of Measures



Is a 'heartpiece' of the DRBM Plan that outlines

- ⇒ Visions and management objectives for each SWMI
- ⇒ Way toward the management/environmental objective 2015
- ⇒ Measures that need to/will be taken on basin-wide scale
- ⇒ Financing aspects

The JPM includes (preliminary) key conclusions

DRBM Plan

SWMIs – Key Results



Organic Pollution



Nutrient Pollution



Hazardous Substances Pollution



Hydromorphological Alterations

Detailed results to be presented in following presentations



Organic
Pollution

Basic Facts



Reference Situation:

- ⇒ **6,224 agglomerations > 2,000 PE** in the DRB:
 - ⇒ 2,000 – 10,000 PE: 4,969 agglomerations
 - ⇒ > 10,000 PE: 1,255 agglomerations
- ⇒ Many agglomerations without wastewater treatment or sewerage connection
 - ⇒ No wastewater collection: more than 2,600 aggl.
= 11% of the generated load

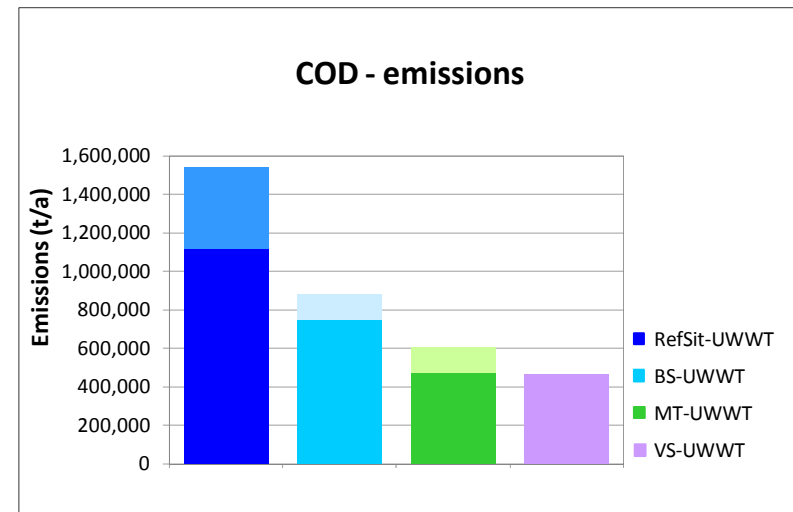
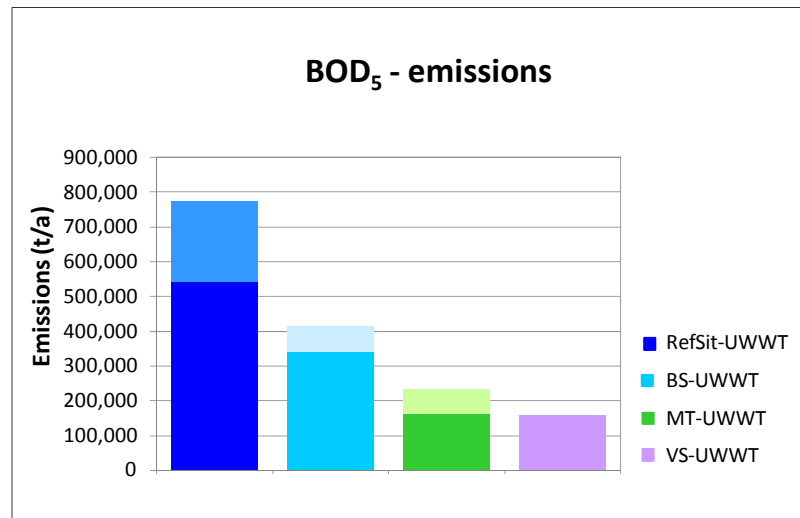
Scenarios used as tool for indication 2015 and beyond



Organic
Pollution

BOD₅ and COD emissions

- ⇒ BOD₅ and COD emissions – different scenarios
 - ⇒ Reference situation
 - ⇒ Baseline Scenario-UWWT 2015
 - ⇒ Midterm Scenario-UWWT (beyond 2015)
 - ⇒ Vision Scenario-UWWT (beyond 2015)





Organic
Pollution

Key Conclusions



- ⇒ **Considerable reduction** through measures of
Baseline Scenario-UWWT to be implemented by 2015 but
achievement of WFD environmental objectives on the
basin-wide scale 2015 not ensured
- ⇒ Significant efforts still need to be undertaken
for next RBM cycles



Nutrient
Pollution

Different Scenarios - Nutrients



- **Overall Baseline Scenario – Nutrients 2015**
- **Baseline Scenario Agriculture – Nutrients 2015**
 - Moderate agricultural development
 - Agreed measures to reduce nutrients
 - Future NO_x deposition
- **Agricultural Scenarios-Nutrient 2015 1 & 2**
 - Intensified agricultural development
- **Phosphate Ban Scenario**
 - Considers P ban in laundry detergents and dishwashers

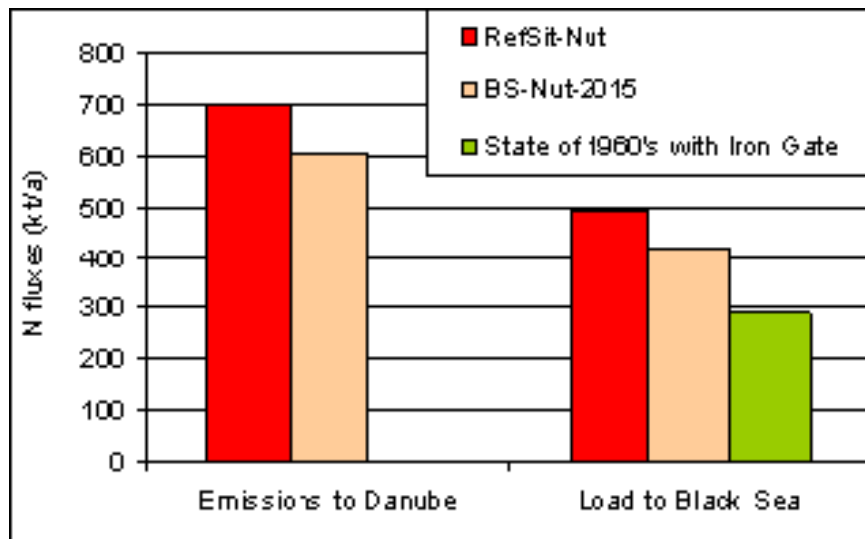


Nutrient
Pollution

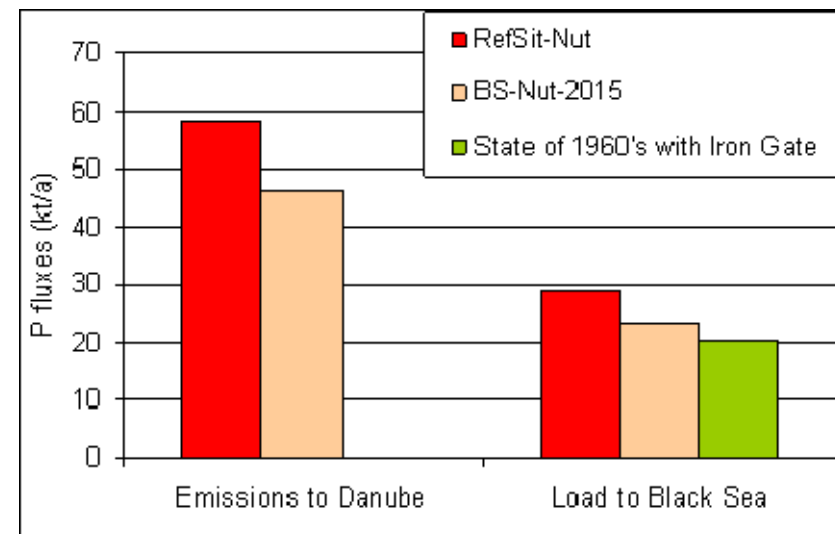
Different Scenarios N & P Emissions and Loads Reference – Baseline 2015



Nitrogen



Phosphorous



Overview



Nutrient
Pollution

Key Conclusions



- **N emissions** to surface waters in 2015: 12% lower.
- Load to the Black Sea: Below present state but still far above (40%) that of the 1960's.
- Management objectives and EU WFD objectives not ensured by 2015
- **P emissions** to surface waters in 2015: 25 % lower
- Load to the Black Sea: Below present state but still above (15%) that of the 1960's
- Management objective will not be achieved by 2015 and this is most likely also the case for the WFD environmental objectives
- Introduction of limitations on P in detergents is seen as a cost effective and necessary measure



Hazardous
Substances Pollution



- ⇒ Based on EPER (EU MS) and ICPDR Emission Inventory data
 - ⇒ to be improved end 2009 (but not part of DRBM Plan)
- ⇒ EU IPPC and other Directives key instruments for reduction
- ⇒ Lack of knowledge on sources , pathways and losses of hazardous substances on the basin-wide scale
- ⇒ Estimation that management objectives and EU WFD environmental objectives will not be achieved in 2015
- ⇒ Further measures needed
- ⇒ There is a need for more monitoring data and information on sources of hazardous substances



Hydromorphological
Alterations

4 HYMO Components



Hydromorphological
Alterations

River and Habitat Continuity Interruption

Disconnection of Adjacent Wetlands/Floodplains

Hydrological Alterations

Future Infrastructure Projects

Key Drivers

⇒ Navigation

⇒ Hydropower generation

⇒ Flood protection

⇒ Water supply

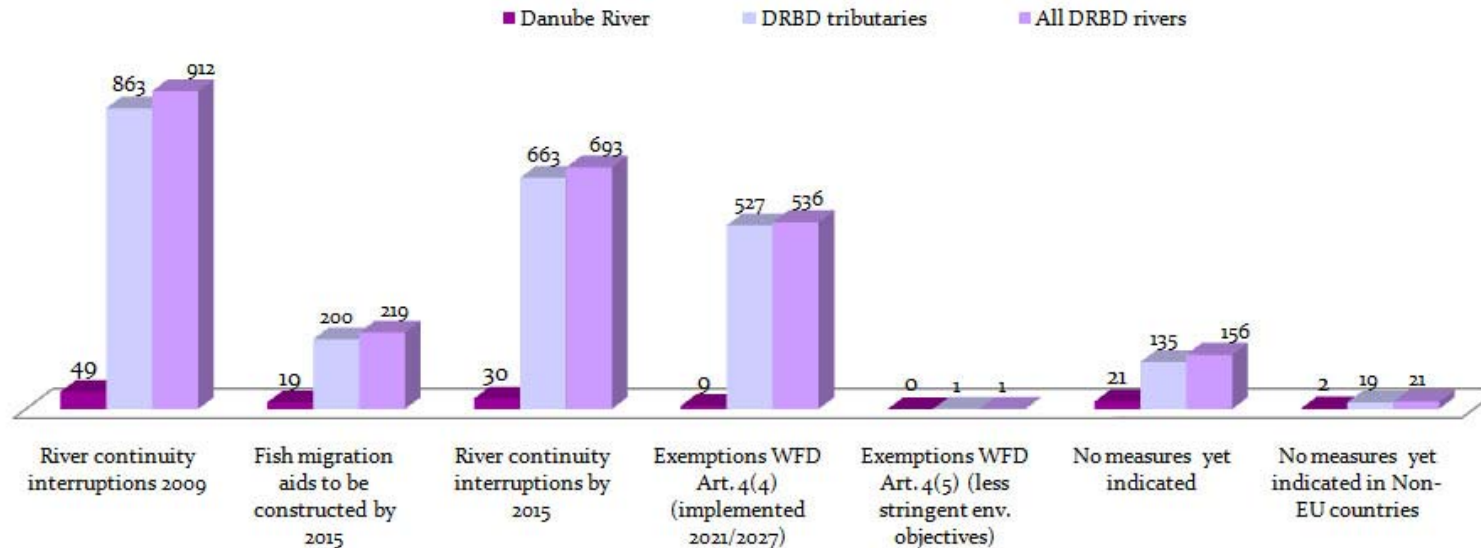


Hydromorphological Alterations

River and Habitat Continuity Interruption

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International Commission for the Protection of the Danube River
Internationale Kommission zum Schutz der Donau



- 219 barriers passable for fish; 693 remain continuity interruptions in 2015
- Remaining continuity interruptions will be addressed by 2021/2027
- Achieve the WFD environmental objectives in an ecologically effective way: initial measures should focus on the defined ecological priority river stretches.
- Perform feasibility study on the re-opening of the Iron Gate Dams



Groundwater
Quality & Quantity

Key Conclusions

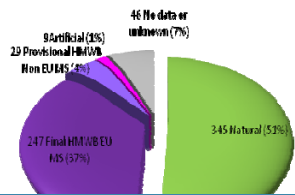


GW Quality

- Findings show: nitrate contamination is key hindrance of achieving a good chemical status
- Key Measures: Implementation EU Nitrates Directive and EU UWWT Directive

GW Quantity

- Some GW-Bodies show poor quantitative status
- Appropriate controls over the abstraction of fresh water and groundwater and impoundment of surface waters (including abstraction registers) must be put in place

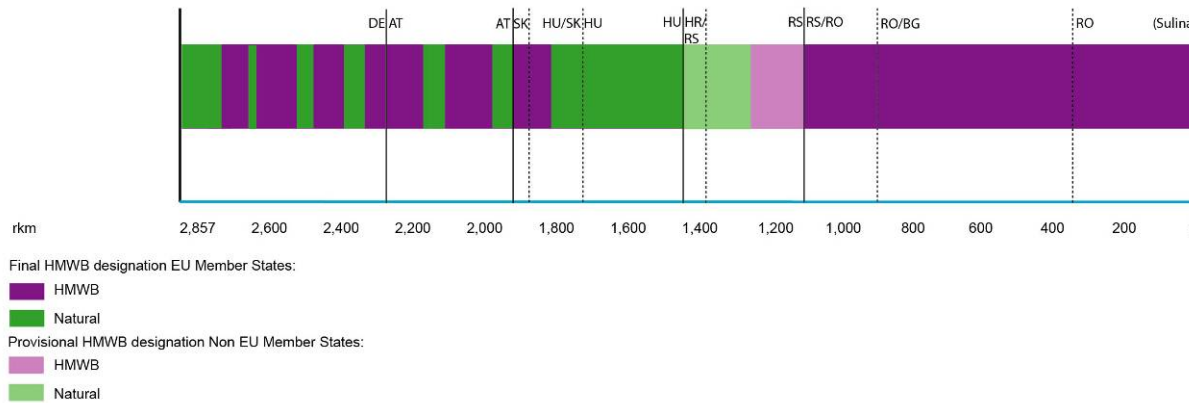


Water Status

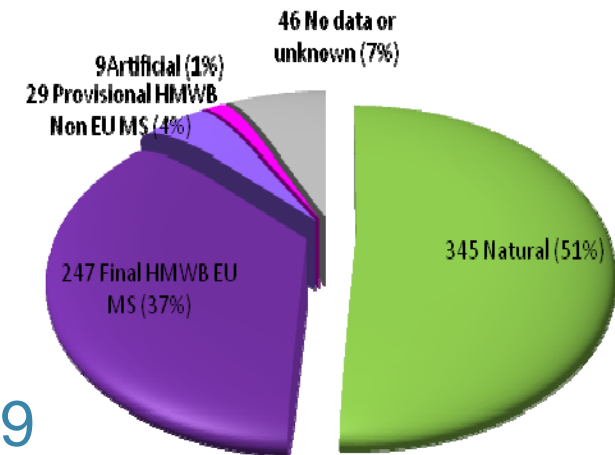
Preliminary Results: HMWB / Artificial WBs



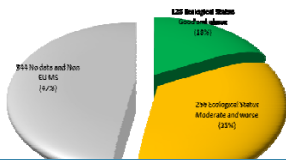
Danube River



All DRBD Rivers



- Data gaps still exist
- Update/revision during second half of 2009

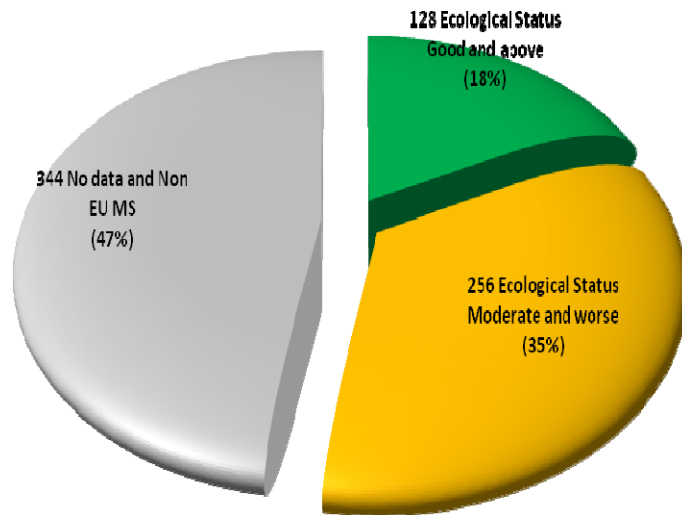


Water Status

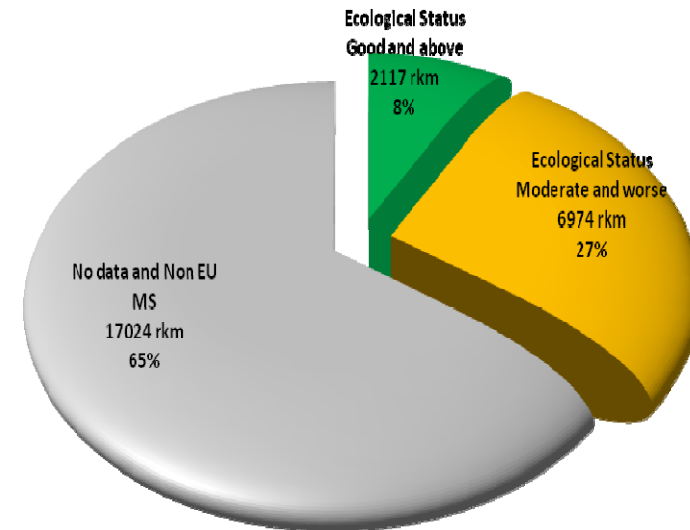
Preliminary Results: Ecological Status 2009 - Rivers



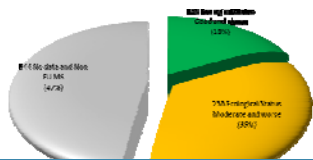
WB Number



WB Length



- Significant data gaps still do exist
- Update/revision during second half of 2009

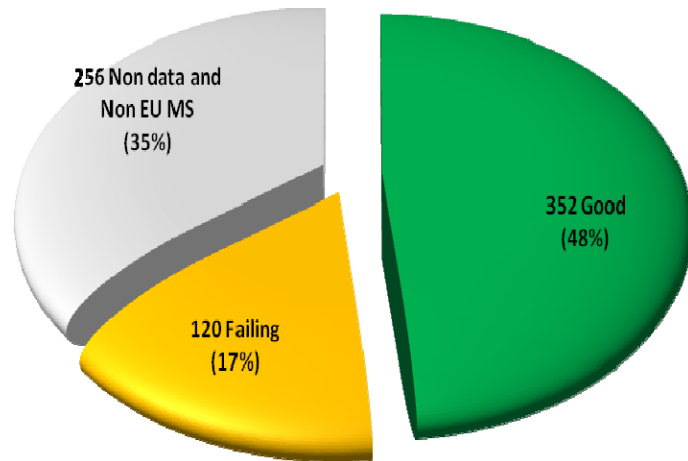


Water Status

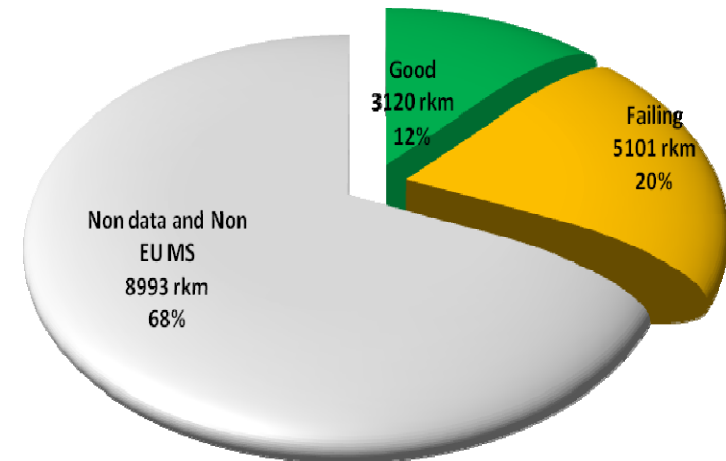
Preliminary Results: Chemical Status 2009 - Rivers



WB Number



WB Length



- Significant data gaps still do exist
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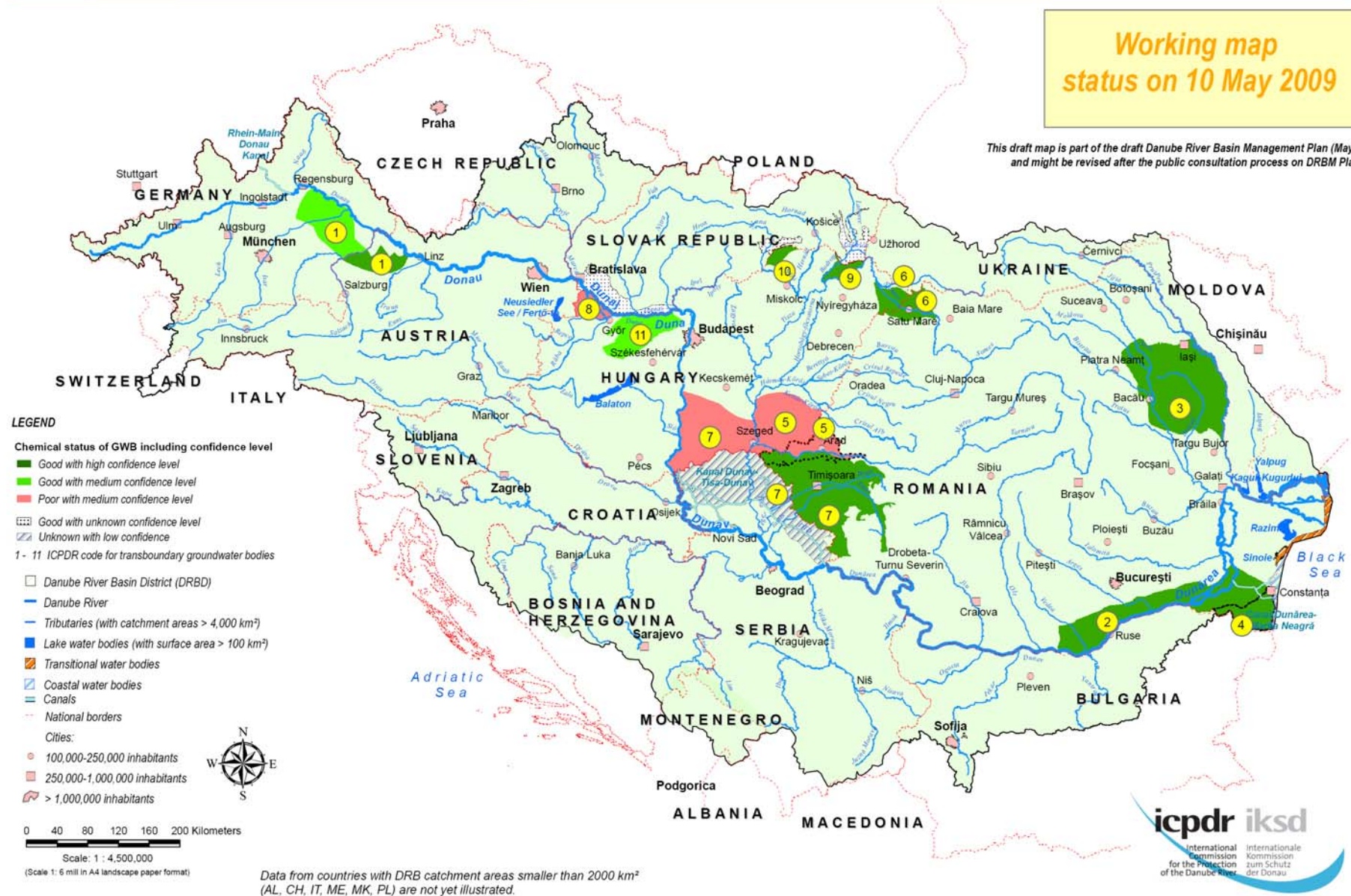
Danube River Basin District : Chemical status - Groundwater

Transboundary GWBs of basin-wide importance

MAP 15

**Working map
status on 10 May 2009**

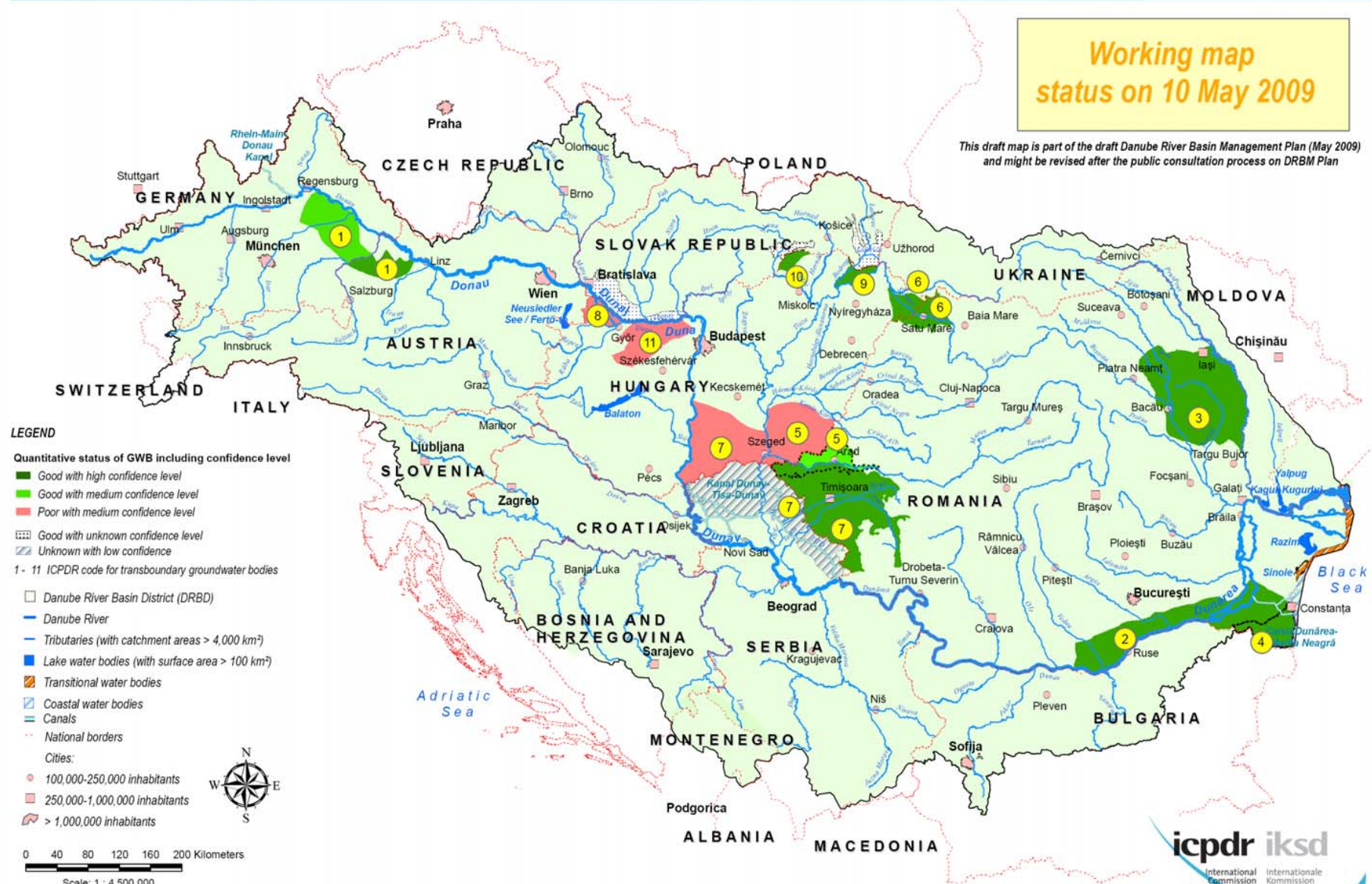
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Danube River Basin District : Quantitative status - Groundwater Transboundary GWBs of basin-wide importance

**Working map
status on 10 May 2009**

This draft map is part of the draft Danube River Basin Management Plan (May 2009) and might be revised after the public consultation process on DRBM Plan



Data from countries with DRB catchment areas smaller than 2000 km² (AL, CH, IT, MK, PL) are not yet illustrated.

Working map
status on 10 May 2009

No data provided : MD

This draft map is part of the draft Danube River Basin Management Plan (May 2009) and might be revised after the public consultation process on DRBM Plan



⇒ 28 % of the 728 River WBs: Exemption according to WFD Article 4(4)

⇒ < 1% of the 728 River WBs: Exemption according to WFD Article 4(5)

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