

Regional overview on water quality and wastewater situation in the DRB

ICPDR IKSD

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Deuts



Србија



România /// България /// Moldova /// Україна



Česká republi



ag /// Slovenija /// Hrvatska



Elena TUCHIU
Rural Wastewater Treatment Workshop
January 19-20, 2021

Danube River Basin



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- > 800,000 km²
- 19 countries
- 79 million inh.
- Danube River:
2857 km
- Black Sea
receiver

ICPDR

Danube Convention - Transboundary cooperation

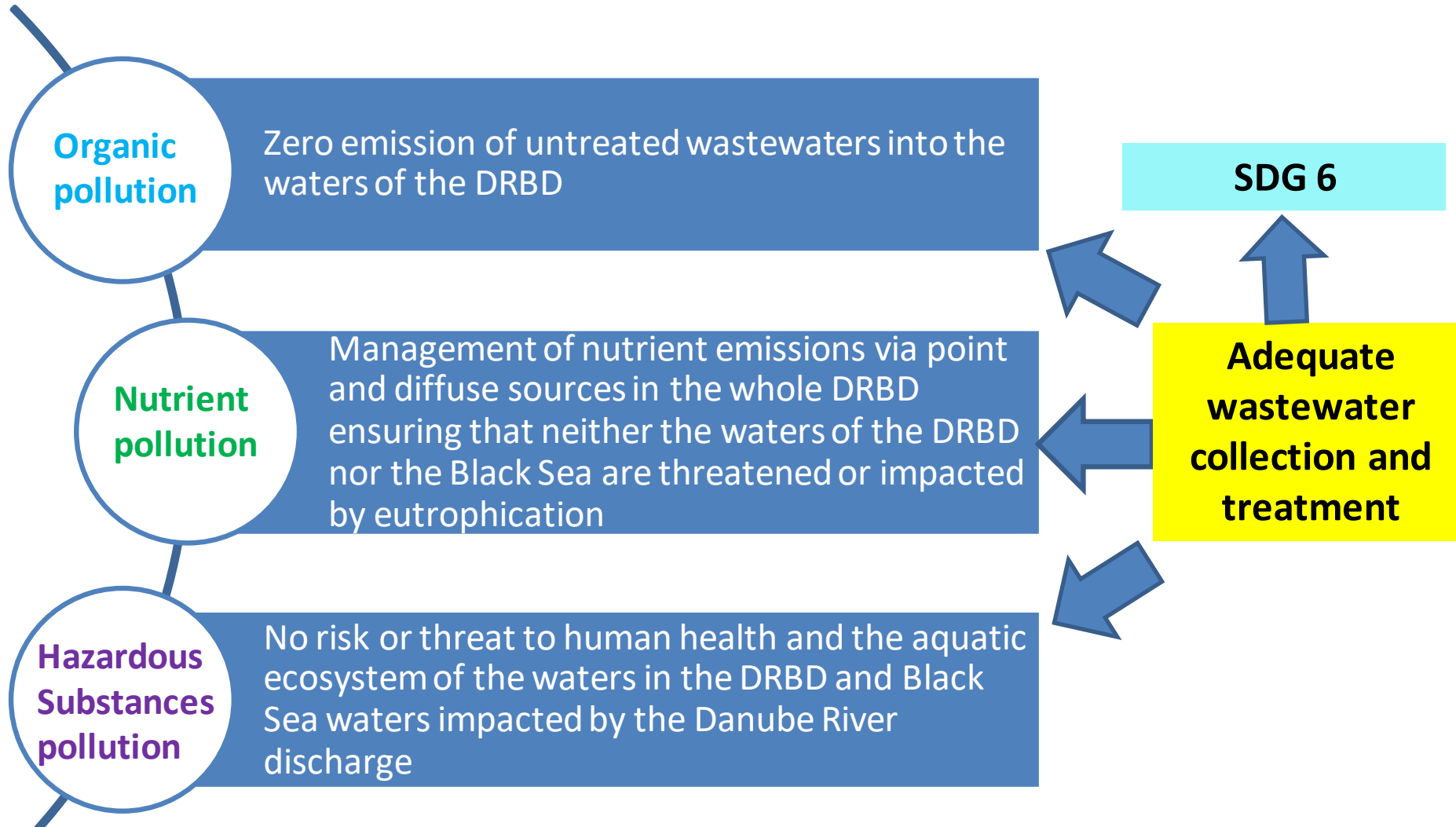
WFD – DRBMP

**Pollution control: pressures and measures (WFD, UWWTD,
NiD, IED)**

Significant Water Management Issues

Pollution related SWMIs – 2019

Visions for CLEANEAR water



Status of the SWBs in the DRB

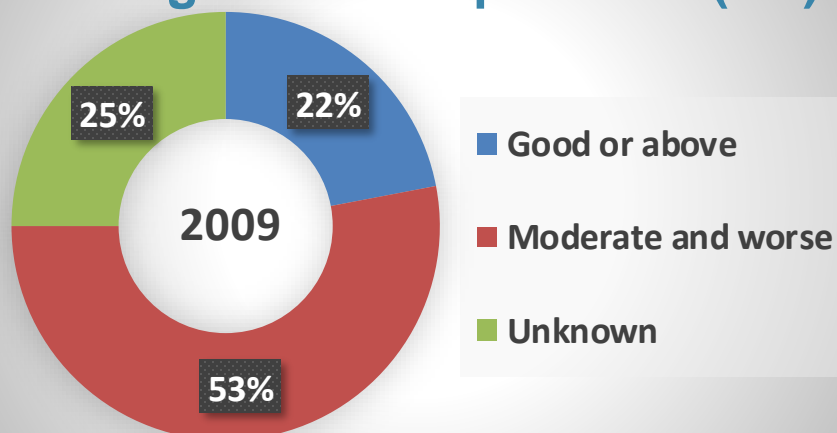
1st and 2nd DRBMP



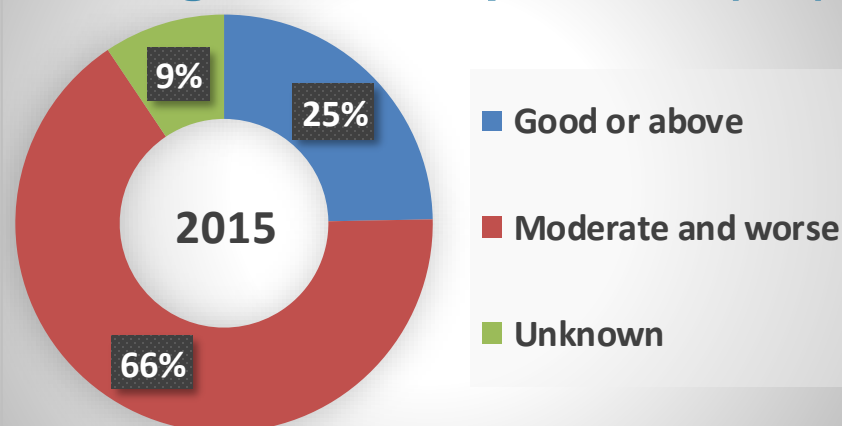
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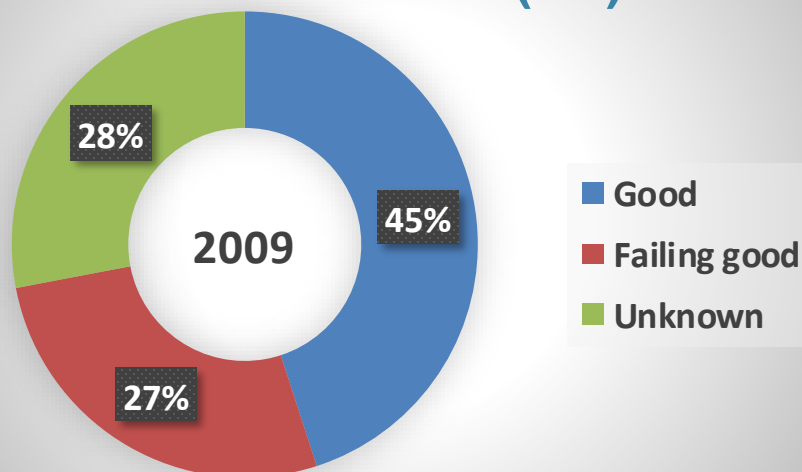
Ecological status/potential (km)



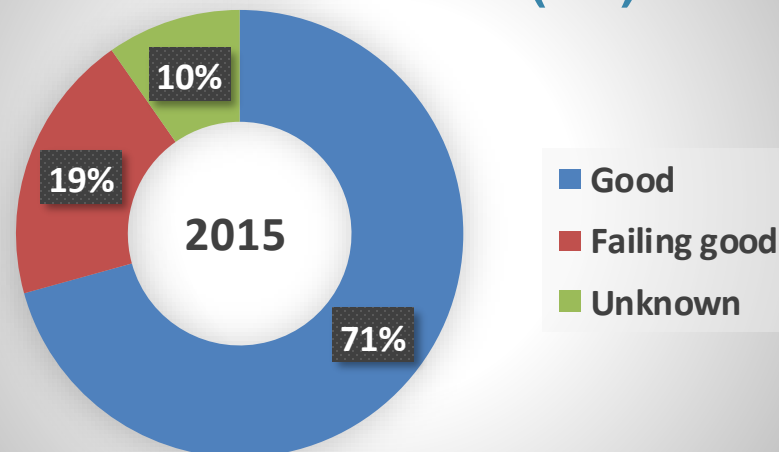
Ecological status/potential (km)



Chemical status (km)

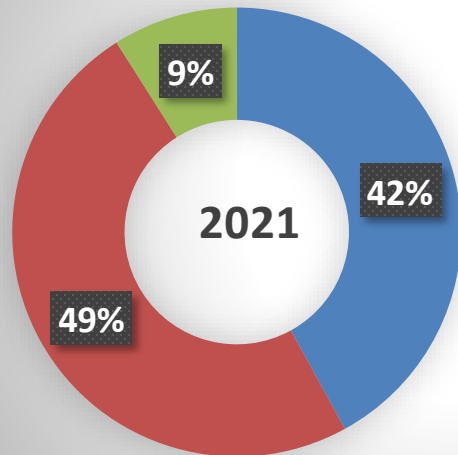


Chemical status (km)



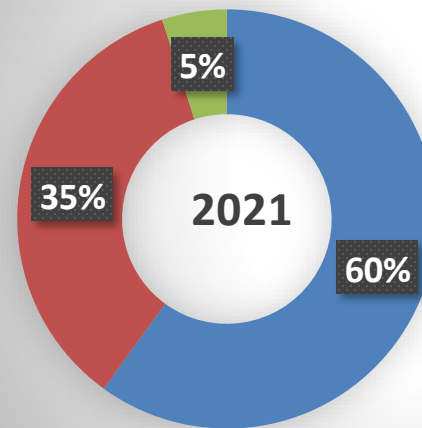
Risk of failing env. objectives SWBs (2nd DRBMP)

Ecological status/potential (km)



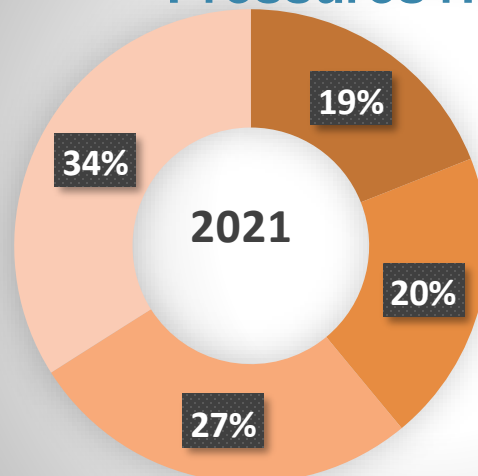
- Not at risk
- At risk or possible at risk
- Unknown

Chemical status (km)



- Not at risk
- At risk or possible at risk
- Unknown

Pressures risks (km)



- Organic pollution
- Nutrient pollution
- HS pollution
- Hymo alterations

UWWTD and agglomerations

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- 68 mil. p.e. - 1,265 agglom. > 10,000 p.e.: tertiary treatment
- 8 mil. p.e. – 1,128 agglom. 5000-10,000 p.e.: secondary treatment
- 10 mil. p.e. – 3,277 agglom. 2000-5000 p.e.: secondary treatment
- ??? Agglom. < 2000 p.e.

UWWTD implementation – great importance for achievement the good status of waters

Attention to smaller agglom.

Risk of failing the env. objectives – rivers WBs (WFD)

WW infrastructure - 2016

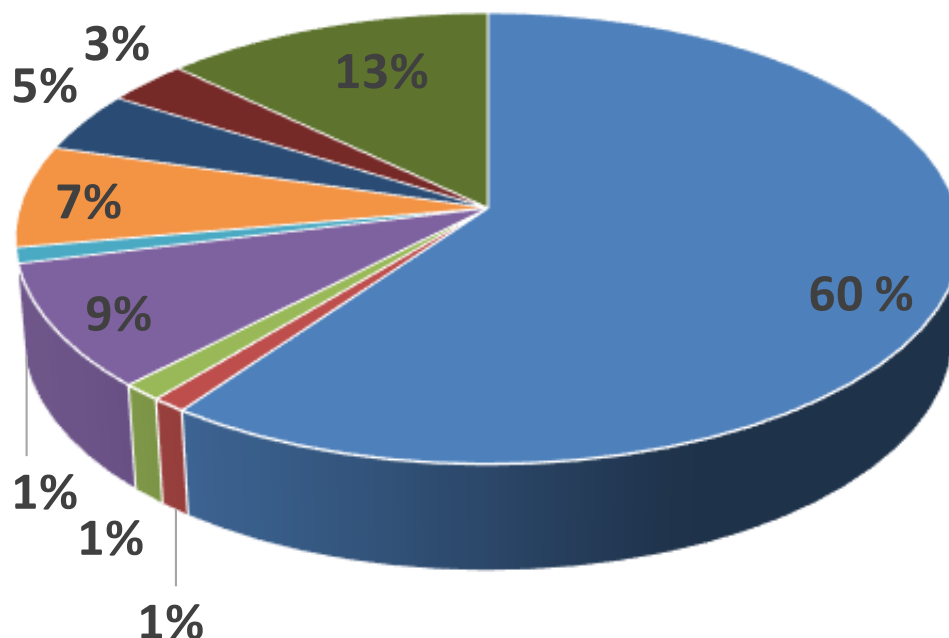
Agglomerations > 2000 p.e.

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p.e. share



- NP-removal
- P-removal
- N-removal
- Secondary treatment
- Primary treatment
- Collected but not treated
- Collected by IAS
- Collected by local systems
- Not collected

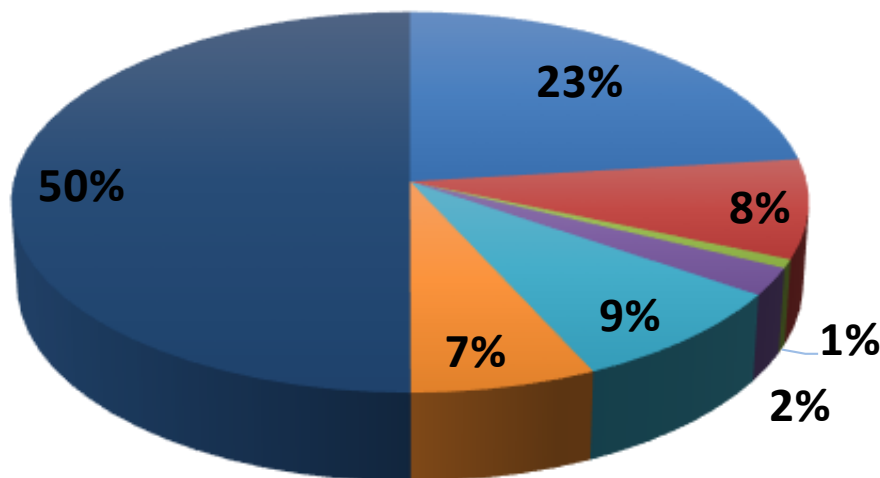
25% (21 mil. p.e.) need basic infrastructure

15% (13 mil. p.e.) need nutrient removal infrastructure

WW infrastructure - 2016

Agglomerations 2000-5000 p.e.

p.e. share



- Tertiary treatment
- Secondary treatment
- Primary treatment
- Collected but not treated
- Collected by IAS
- Collected by local systems
- Not collected

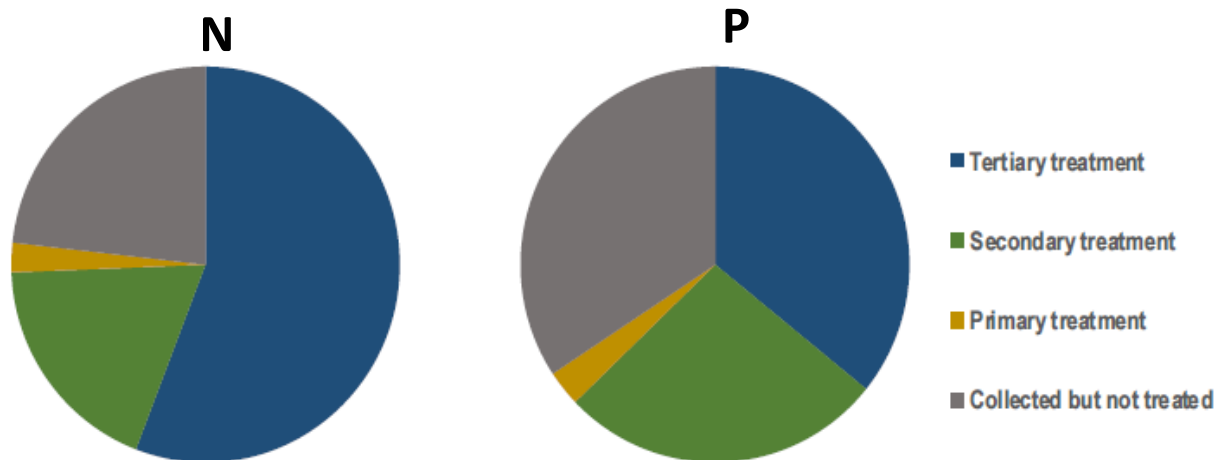
57% (5.6 mil. p.e.) need proper collection

60% (6 mil. p.e.) need proper treatment

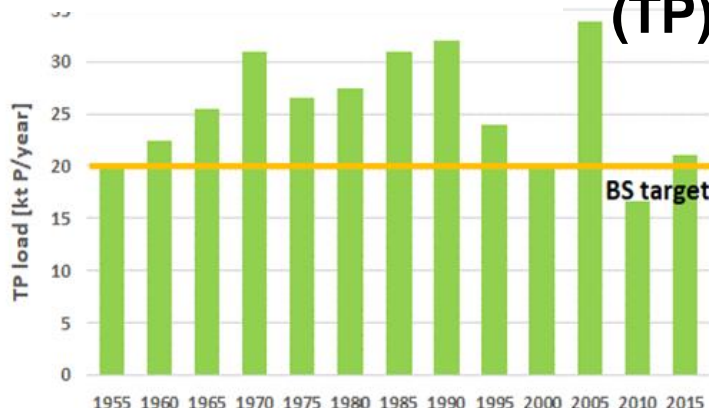
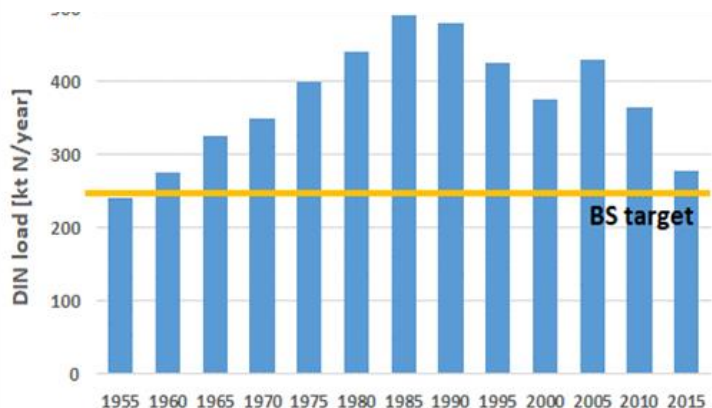
Nutrient pollution

Agglomerations > 2000 p.e.

Black Sea coastal area **sensitive zone** DRB - **catchment** of the sensitive zone



- 68.5 kt N/y and 8.9 kt P/y discharges (2016), of which 6.6 kt N/y and 1.2 kt P/y from agglom. 2000-5000 p.e.
- 2006-2016: decrease by 41% (TN) and 57% (TP)



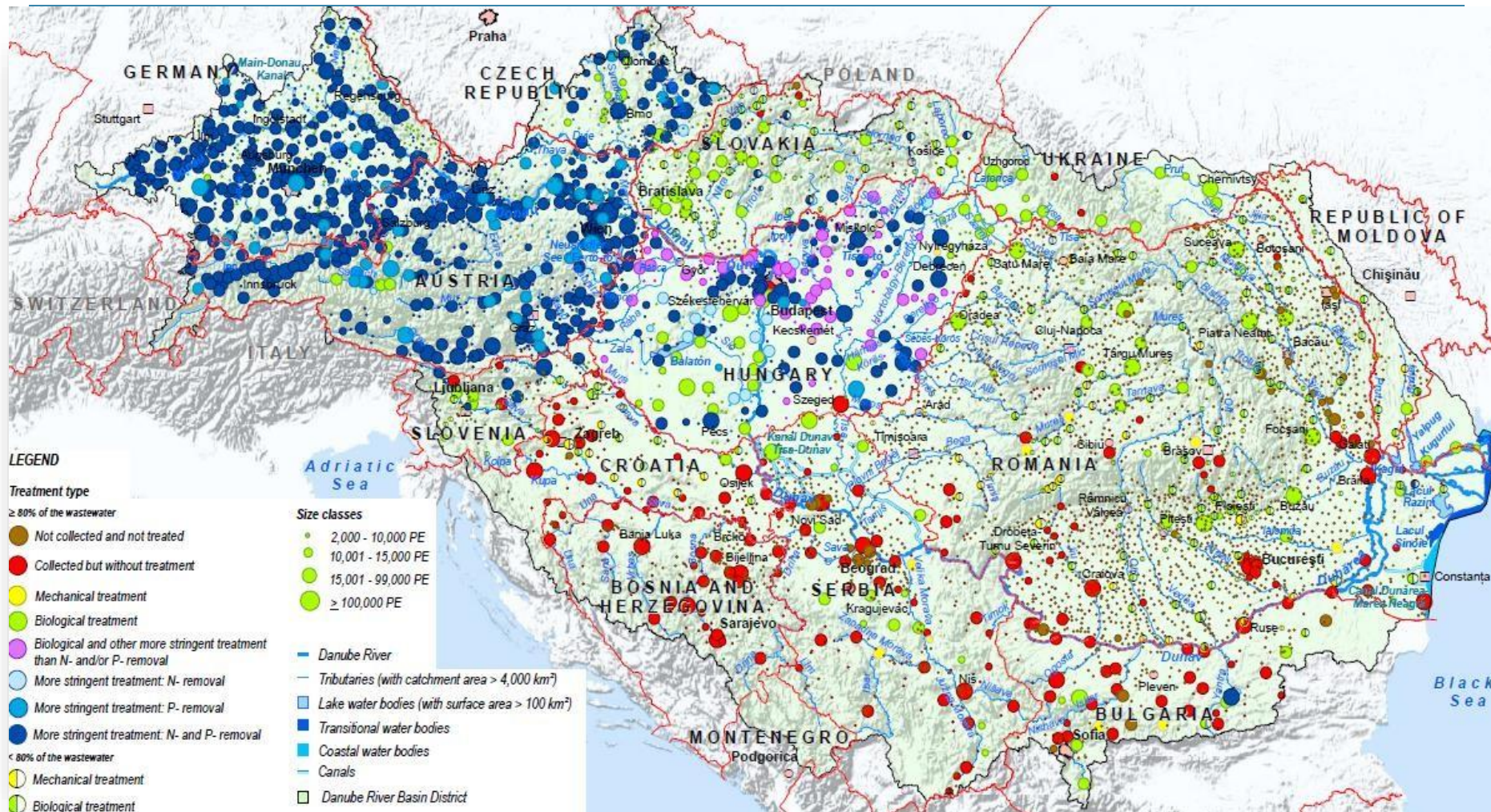
1st DRBMP 2005/2006

Agglomerations > 2000 p.e.

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3rd DRBMP (draft version)

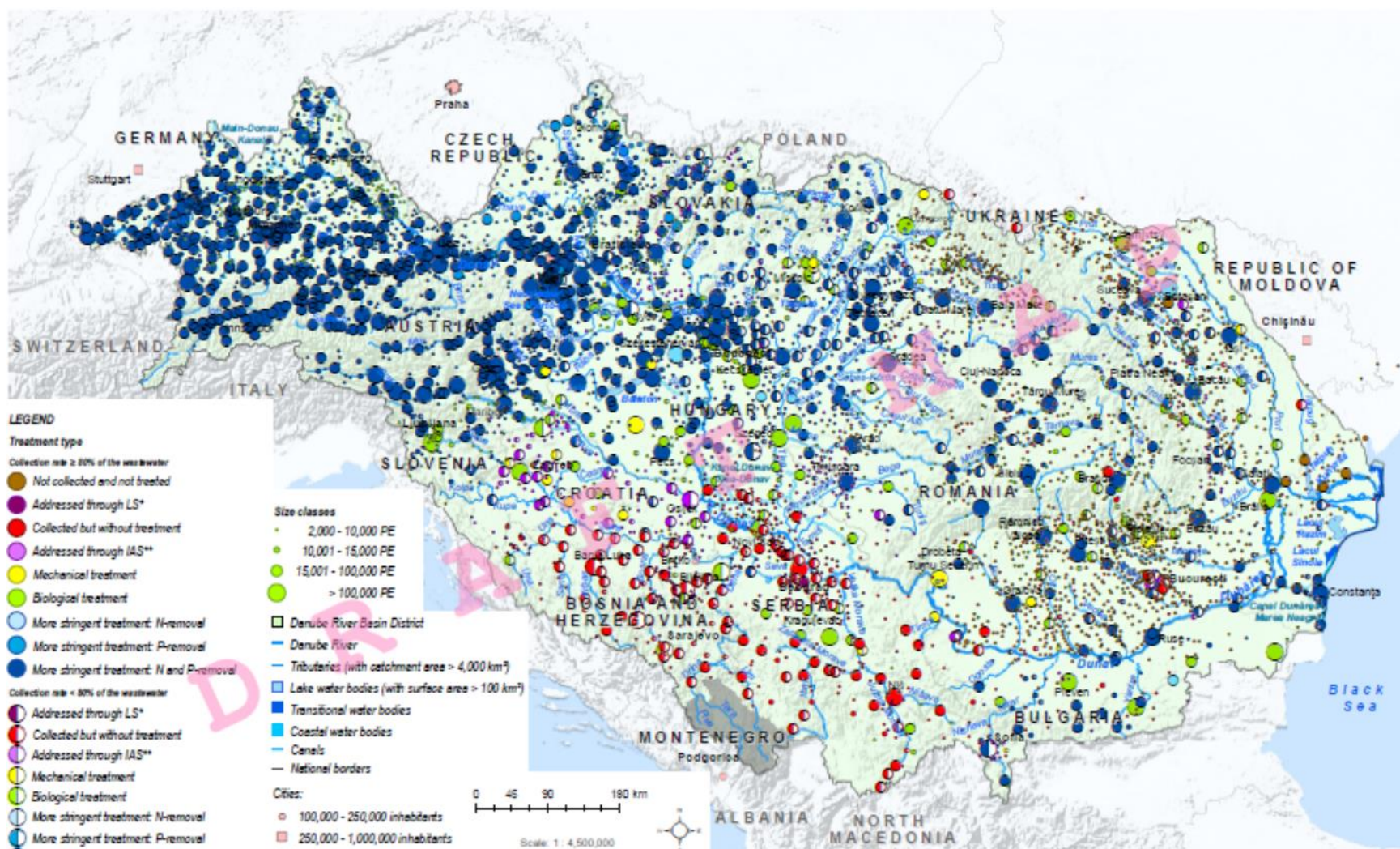
2016

Agglomerations > 2000 p.e.

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Thank you for your attention!

ICPDR website: <http://www.icpdr.org>