

30 Years of Cooperation in the Danube River Basin



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Europe

The Danube Basin



The Danube has always been one of Europe's most important river



Lifeline for people and countries

Ecological richness & biodiversity



Danube is a connector with the Black Sea: Important regarding many aspects

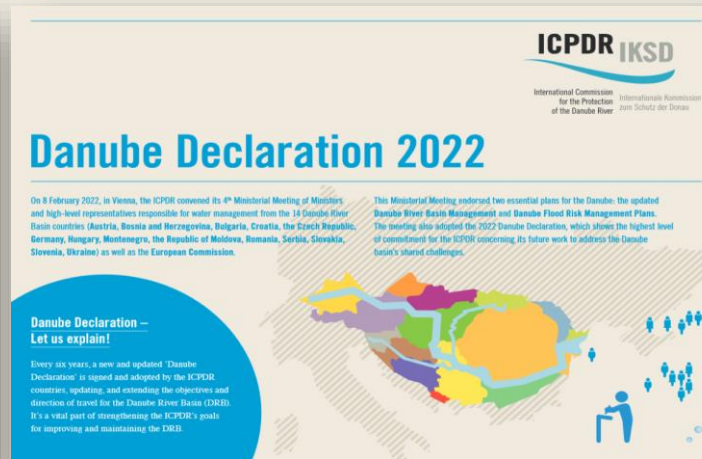
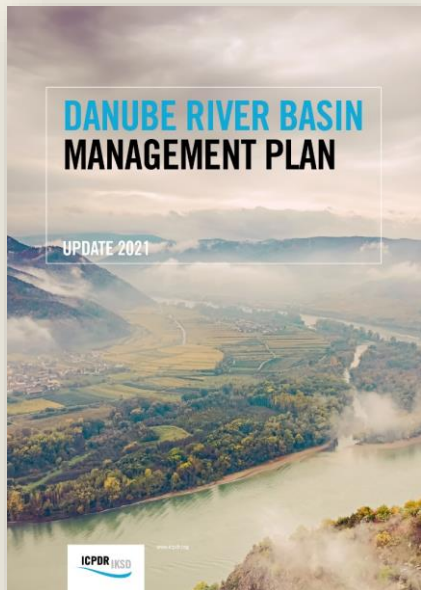
International cooperation plays a key role in the DRB

ICPDR Implementation Responsibilities

- ✓ Cooperation under 1994 Danube River Protection Convention



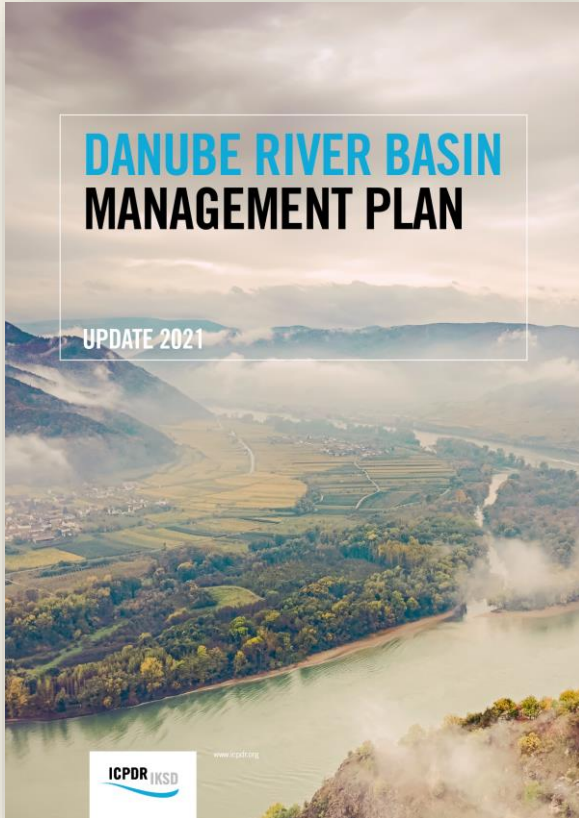
- ✓ Transboundary coordination of EU WFD & FD



Key Challenges Towards Solutions



5 Significant Water Management Issues



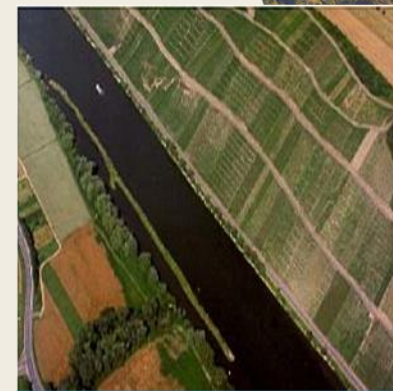
**Organic
Pollution**



**Nutrient
Pollution**



**Hazardous Subst
Pollution**



**Hydromorphological
Alterations**



**Effects of Climate
Change (drought,
water scarcity,
extreme hydrological
phenomena and other
impacts)**



Transforming Alterations into *Good Status* through Monitoring



Monitoring, sharing information and warning system
were first joint actions in the DRB also protecting Black Sea

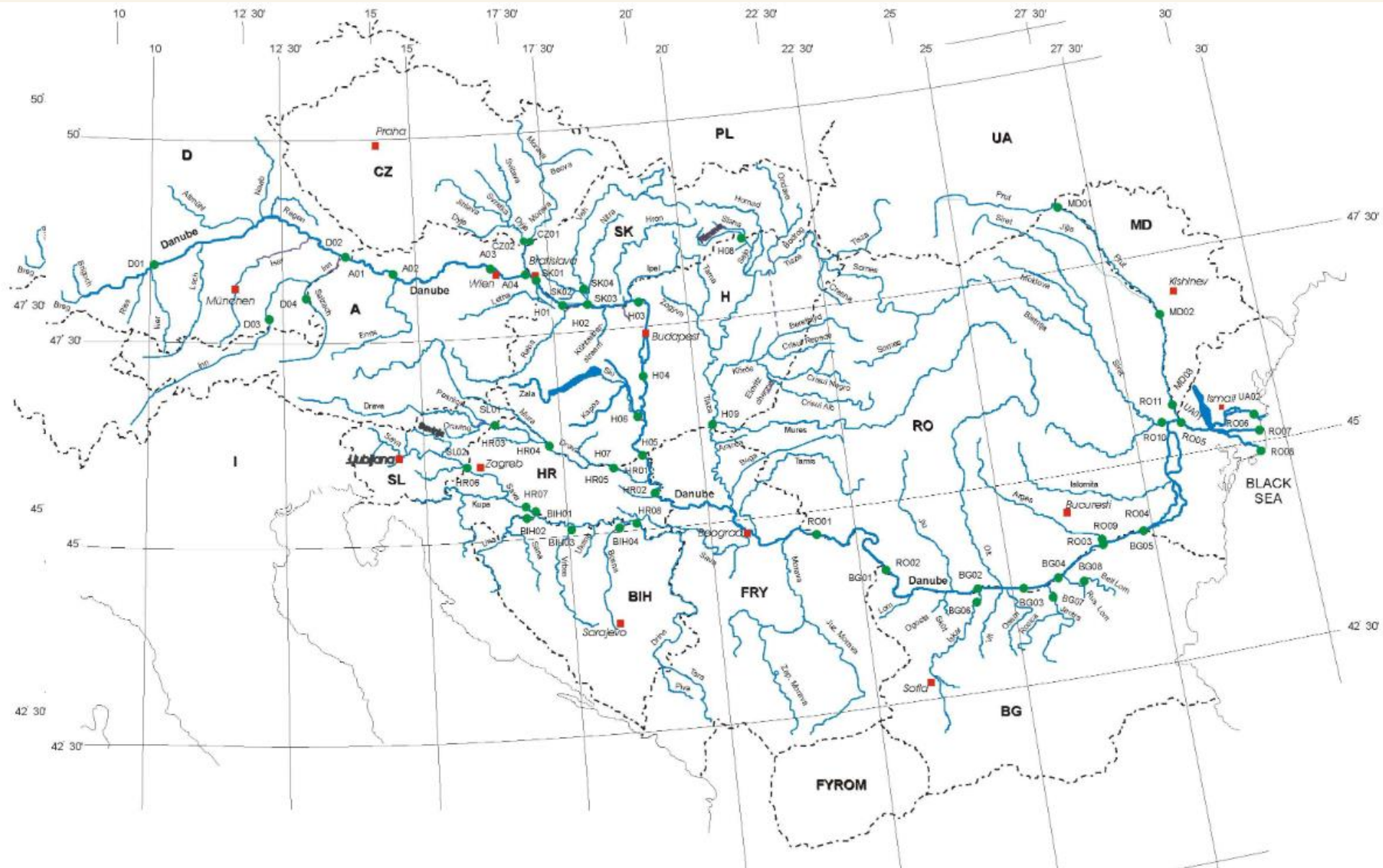
- This is unusual and not the same in most river basins



- **1993:** Design of Transnational Monitoring Network
- **1996:** Transnational Monitoring Network is in operation
- **2001:** First Joint Danube Survey (2007, 2013, 2019, **2025**)

1996: Initial Transnational Monitoring Network

- 61 sampling sites



2007: EU WFD Transnational Monitoring Network

Transnational Monitoring Network - Surface Waters

DRBMP Update 2021 - MAP 21

- 101 sampling sites



*Surveillance Monitoring 1 provides an assessment of the overall surface water status in the Danube River Basin District.

**Surveillance Monitoring 2 provides an assessment of long-term trends of specific pollutants and of loads of substances transferred downstream the Danube.

This ICPDR product is based on national information provided by the Contracting Parties to the ICPDR (AT, BA, BG, CZ, DE, HR, HU, MD, ME, RO, RS, SI, SK, UA) and CH. EuroGlobalMap data from EuroGeographics was used for all national borders except for AL, BA, ME where the data from the ESRD World Countries was used. Shuttle Radar Topography Mission (SRTM) from USGS Seamless Data Distribution System was used as elevation data layer; data from the European Commission (Joint Research Center) was used for the outer border of the DRBD of AL, IT, ME and PL.

Assessing Good Water Status based on Monitoring

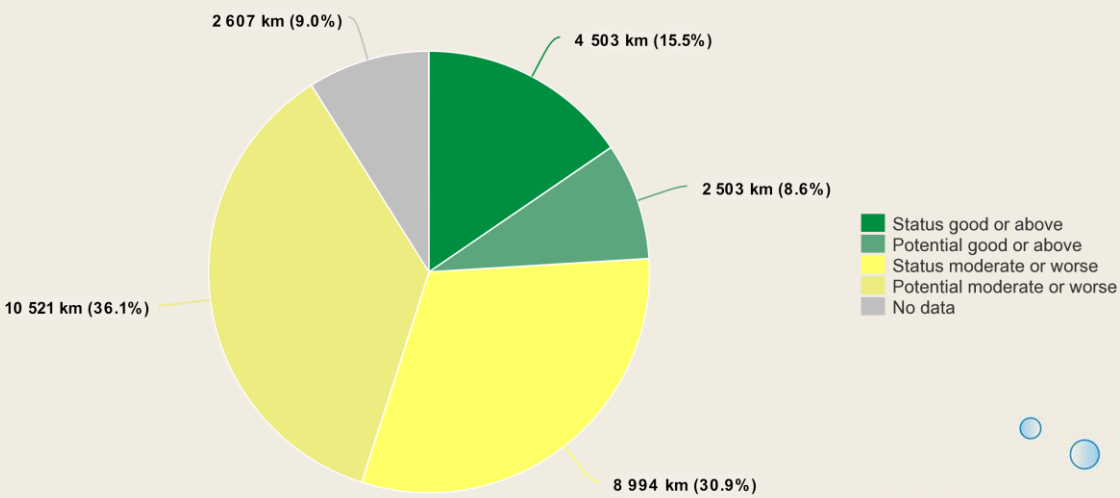


Ecological Status and Ecological Potential of Surface Water Bodies DRBMP Update 2021 - MAP 23



On transboundary river water bodies, status of surface water bodies is reported separately for each country and may differ from each other. In case of overlapping symbols, they are drawn on top of each other, in this order: higher confidence is shown on top, and in case that status assessments have the same confidence, the following ranking should be applied (top to bottom): Bad - Poor - Moderate - Good - High - Unknown. In case that assessments have the same confidence and status, the following ranking should be applied (top to bottom): Artificial - Heavily Modified (Final then Provisional) - Natural (Final then Provisional) - No designation performed. This ICPDR product is based on national information provided by the Contracting Parties to the ICPDR (AT, BA, BG, CZ, DE, HR, HU, MD, ME, RO, RS, SI, SK, UA) and CH. EuroSloMap data from EuroGeographics was used for all national borders except for AL, BA, ME where the data from the ESRD World Countries was used. Shuttle Radar Topography Mission (SRTM) from USGS Seamless Data Distribution System was used as elevation data layer; data from the European Commission (Joint Research Center) was used for the outer border of the DRBD of AL, IT, ME and PL.

Vienna, November 2021



Improving Basin-Wide Wastewater Treatment & Water Status



- 30% nitrogen emissions

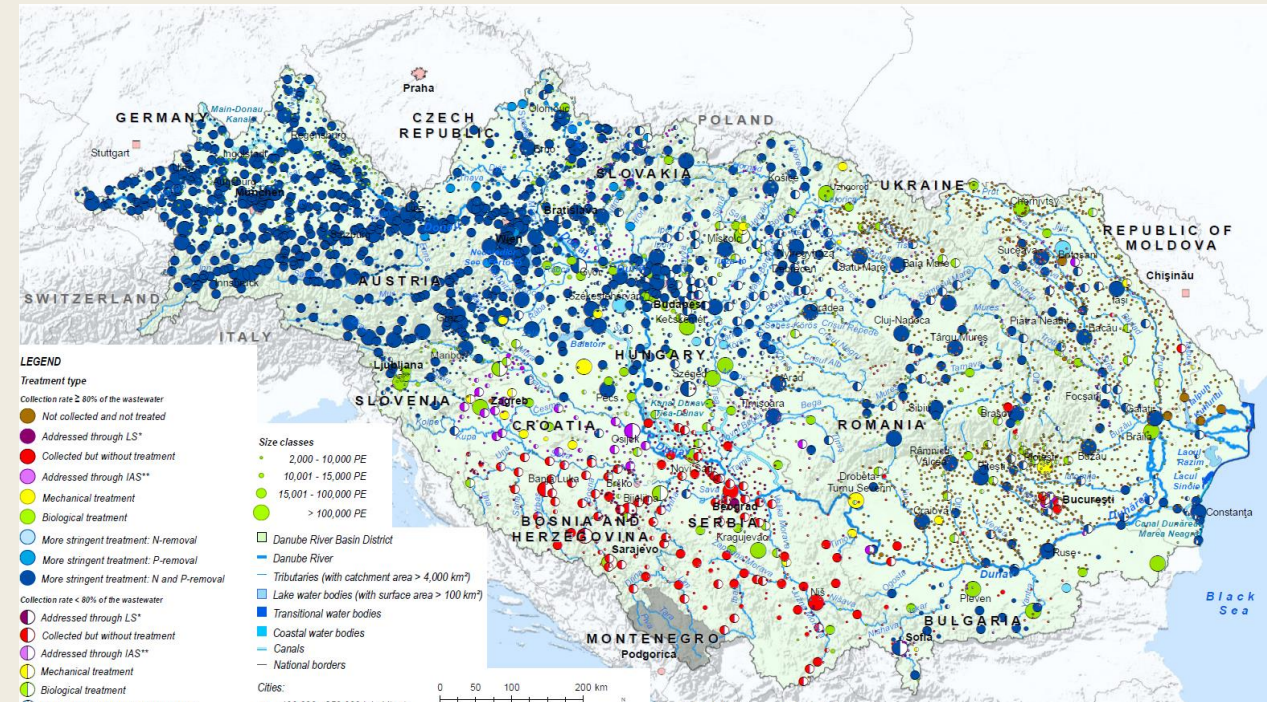
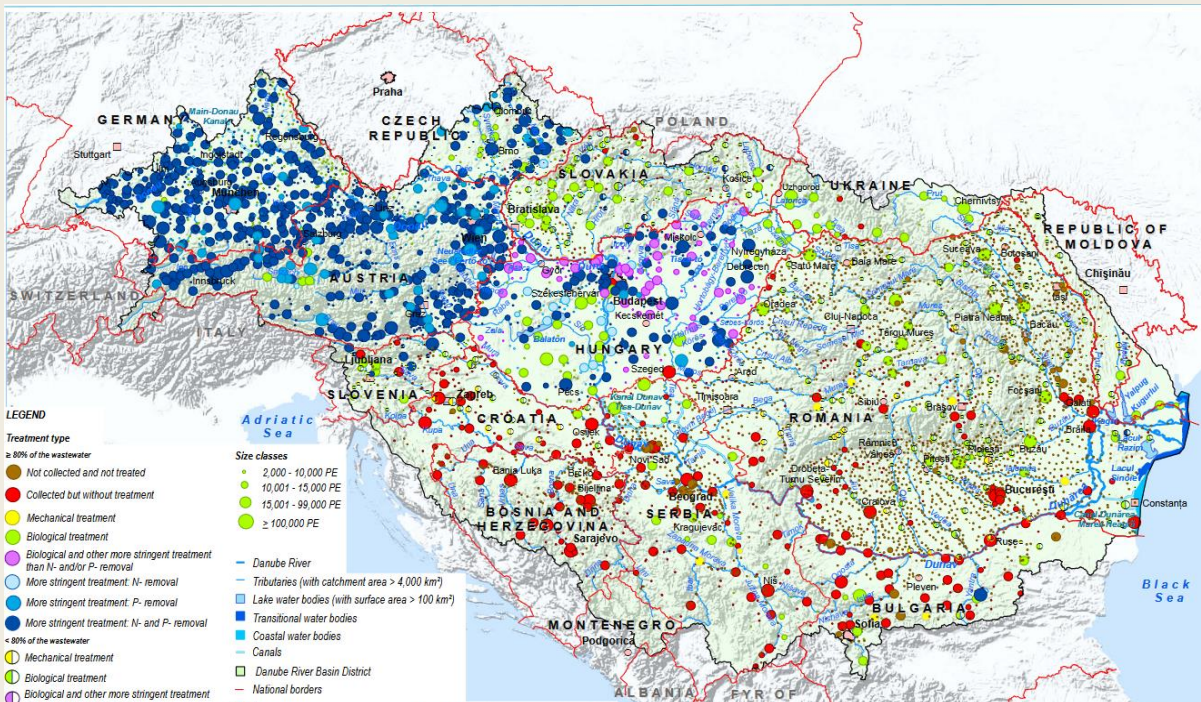
- 60% organic emission
28 € billion investment

- 50% phosphorous emissions



Urban Wastewater Treatment 2009

Improved Urban Wastewater Treatment 2021



Status 2021: Interruptions of River Continuity for Fish Migration

Interruptions of River Continuity for Fish Migration - Current Situation 2021

DRBMP Update 2021 - MAP 14



Danube RBM Plan 2021:

- 624 river continuity interruptions are still not passable for fish migration

ICPDR IKSD

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

* The barriers are related to different water uses. More detailed information is available in the chapter 2 of the DRBMP Update 2021.
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Planned Improvement by 2027: Interruptions of River Continuity for Fish Migration

Interruptions of River Continuity for Fish Migration - Expected Restoration Measures by 2027

DRBMP Update 2021 - MAP 36



In case of overlapping continuity interruption symbols, they are drawn on top of each other in this order (top to bottom): Not implemented by 2027, Not yet determined, Implemented by 2027, Already implemented by 2021, Not necessary for GES/GEF, Not applicable.

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www.icpdr.org

ICPDR IKSD

International Commission
for the Protection
of the Danube River



New assessments and
improvement will be presented
in the Danube RBM Plan 2027

ICPDR IKSD

International Commission
for the Protection
of the Danube River

Internationale Kommission
zum Schutz der Donau

Restoring Longitudinal Connectivity / Fish Migration



- 2008: Protecting our Flagship species the Sturgeon – Task Force
- 2023: Feasibility options to make Iron Gate Dams I&II passable for fish
- 2022 onwards: Work on Feasibility for Gabčíkovo passability

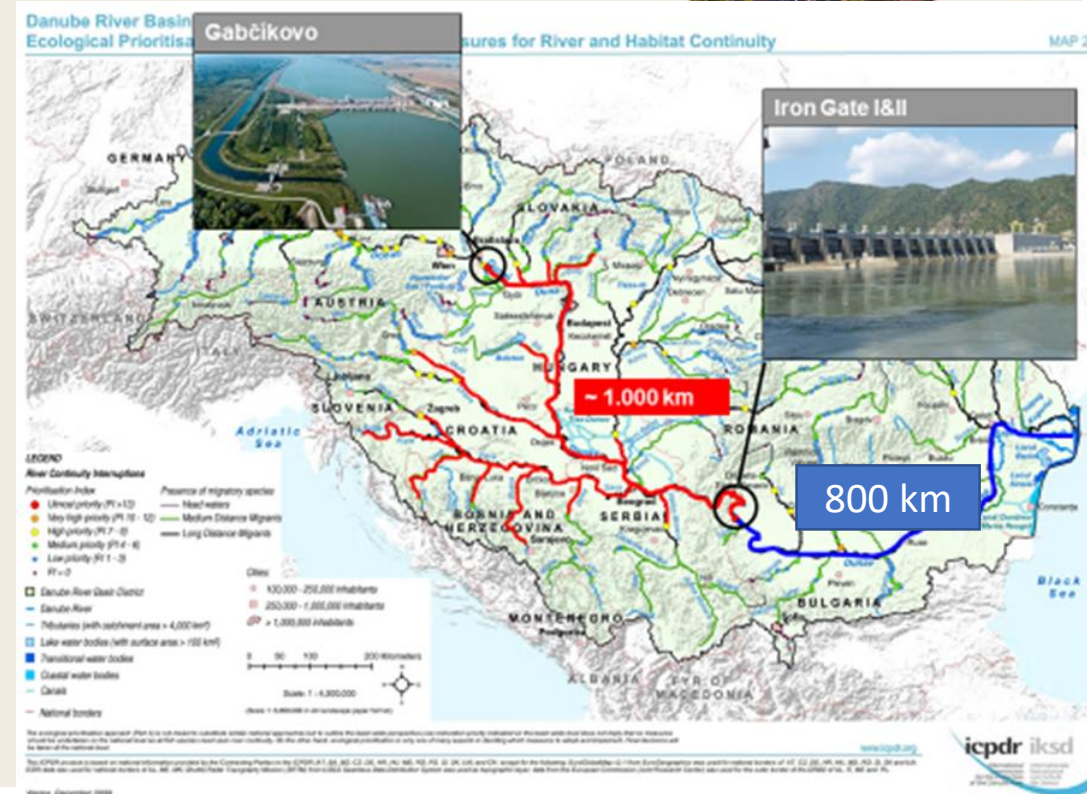
Aim: Connect 1.800 km of the Danube itself and to the Black Sea



Picture: FAO-FIGS



Picture: FAO-FIGS



Concluding Thoughts



Water quality and fish migration

- Transnational monitoring is key basis for transboundary management, water status information and providing healthy habitats
- Restoration measures to ensure habitats for fish is critical and need implementation
- Ensuring river continuity is essential for short and long-distance fish migration and healthy fish populations

Continue reacting to challenges with transformation

- Basin-wide cooperation is the key tool for success
- Cooperation with the EUSDR
- Cleaner, healthier and safer Danube River Basin

