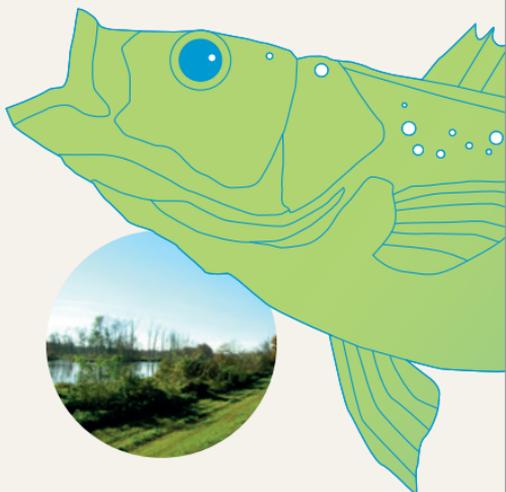

ICPDR IKSD

International Commission
for the Protection
of the Danube River

Internationale Kommission
zum Schutz der Donau

From Convention to Action – 25 Years of the ICPDR



The Faces of the River

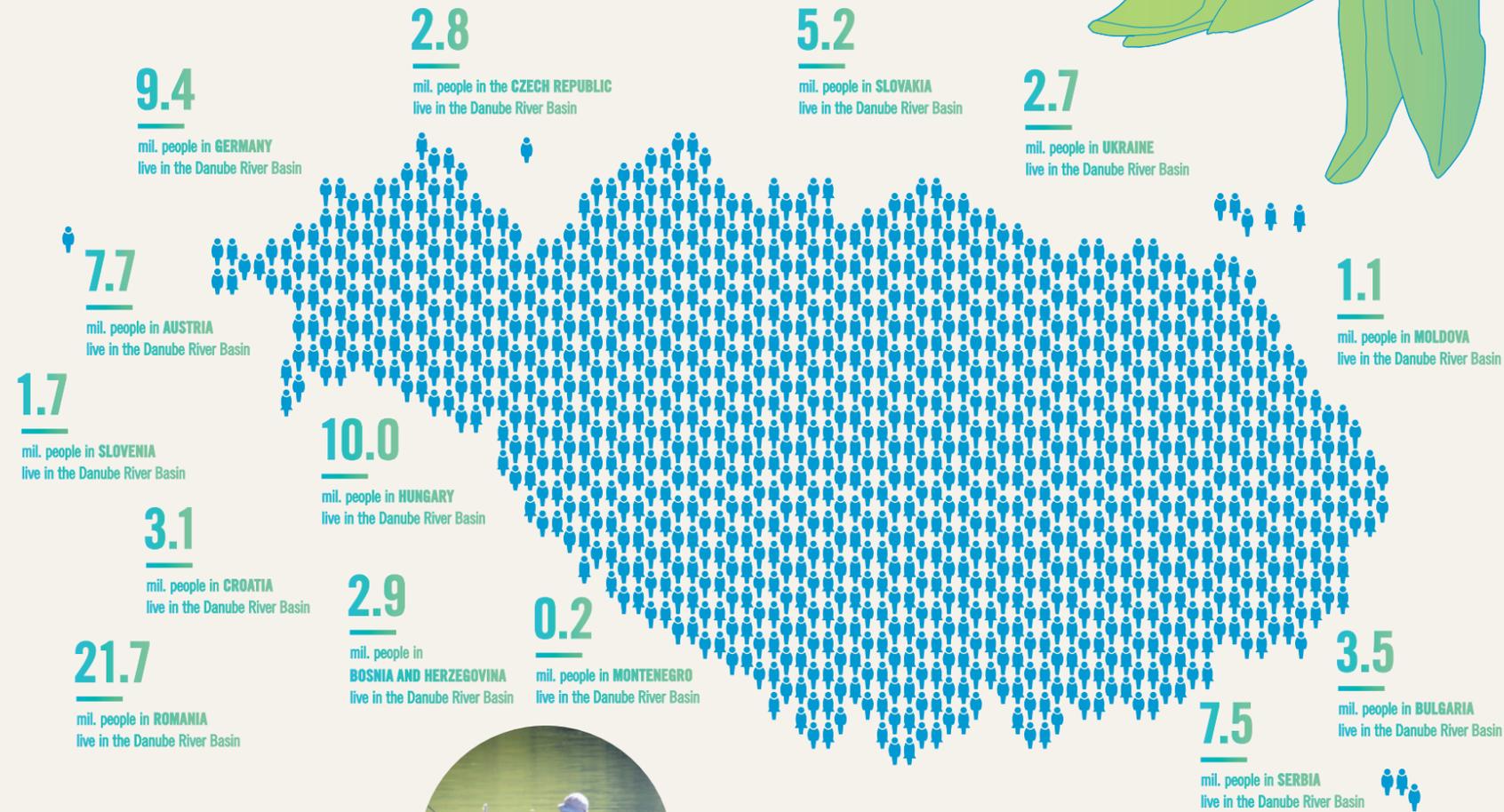
Living and working in the Danube River Basin

People have been living along the Danube and its tributaries since even the earliest human settlements – attracted by the region's rich diversity of plants and animals, fertile land and strategic geographic position. Originating over 7,500 years ago, the Vinča culture existed along the Danube River even predating civilisations in Mesopotamia or Egypt. Many of its innovations – in writing, farming and copper metallurgy – are some of the earliest examples of technological advancements, not just in Europe but in the world.

Later, the Danube formed the northern border of the Roman Empire, and was used as a transport route for troops as well as supplies for settlements downstream.

Each group of people who have come to the Danube Basin have made an impact on the region through their traditions, beliefs and knowledge. At the same time, they have also been influenced by the cultures already living in the area, and the river itself has inspired a wide range of artists.

Today, over 80 million people in 19 countries call the Danube River Basin home, and their lives are connected through their dependence on the waters and resources of the region.



Human uses of the Danube

- Drinking water
- Energy
- Transport
- Industry
- Agriculture
- Fisheries
- Tourism
- Recreation



Human impact on the river's status

However, the actions of people in the region affect the status of the river and its ecosystems, leading to serious problems for water quality and quantity, as well as a critical loss of biodiversity.

Inadequately treated wastewater ends up in the Danube, putting the drinking water supply of millions of people at risk, and leading to problems for irrigation, industry and fishing.

Excessive amounts of nutrients enter the river from agricultural fertilisers, thus devastating fish stocks and clogging the water with algal blooms. Industrial accidents or floods flush hazardous and toxic substances directly into water bodies.

Changes to the river's structure for navigation, hydropower or flood defence can reduce flow rates and/or interrupt natural sediment transport as well as the migration routes of animals.

Shared resources mean shared responsibility

Everyone shares responsibility for the river. The Danube countries – along with the EU – are working together under the ICPDR to help restore the waters of the basin and safeguard them for future generations.

Did you know?

One of the very earliest forms of writing (some historians even claim the first) anywhere in the world was created along the Danube River by the Vinča culture, and included about 700 characters and symbols.

Ways to get involved

Everyone has a say. Public participation programmes allow all of the Danube Basin's residents to make their voices heard and get involved for their waters.

- Danube Day
- Danube Art Master
- Danube Box
- Danube Watch
- Information events
- Public consultation
- Social media

For centuries the Danube River has played a role in the political, cultural and socio-economic development of the region. This shared resource has created a history of cooperation that inspires others around the world.

2001

First Joint Danube Survey (JDS) is carried out; Danube Watch magazine is relaunched

2002

ICPDR's Flood Protection Expert Group (FP EG) is established

2003

Serbia joins the Danube River Protection Convention

2004

1st Danube Day is held on 29 June; 1st Danube Basin Analysis adopted; Czech Republic, Hungary, Slovakia and Slovenia join the EU

2005

Bosnia & Herzegovina joins the Danube River Protection Convention

2006

ICPDR Expert Groups on Public Participation and Information Management & GIS are established; education toolkit Danube Box is launched

2007

EU Floods Directive (FD) is adopted; "Joint Statement on Inland Navigation and Environmental Sustainability in the DRB" concludes; ICPDR wins Thies International Riverprize

Committed to the future of the Danube

The work of the ICPDR to face the region's challenges

The goal of the ICPDR is to achieve a cleaner, healthier and safer Danube River for all citizens to enjoy.

- Cleaner waters – less pollution from settlements, industry and agriculture
- Healthier waters – better ecosystems for aquatic plants & animals
- Safer waters – with less damage from floods

Tackling pressures together

As a platform for cooperation, the ICPDR is constantly improving the tools used to manage environmental issues in the Danube River Basin.

Assessing the status of the river

Water quality in the Danube has improved over the years, but there is still much work to be done to meet the region's goals for water status. To assess trends in water quality, the ICPDR oversees the **Trans-National Monitoring Network (TNMN)**. The network carefully monitors physical, chemical and biological conditions in

the Danube and its tributaries, and provides an overview of pollution levels as well as long term trends for water quality in the basin. It is based on national monitoring programmes and, as of 2017, includes 109 monitoring stations across the Danube and its tributaries.

Did you know?

It is generally safe to swim in the Danube, though local pollution hot spots downstream of big cities and the mouths of polluted tributaries should be avoided.

Healthier

habitats and ecosystems for aquatic plants and animals

The world's biggest river expedition

As a basis for sound decision-making, Danube countries need high quality and comparable data. The **Joint Danube Survey (JDS)** collects and analyses samples taken from the river to improve the validity and comparability of water quality data received from its regular monitoring programme, the **TransNational Monitoring Network**. The survey is always a huge undertaking,

Guarding against flood damage

Although floods are natural events and part of the water cycle, they cause massive damage and risk to human lives. The ICPDR has made flood prevention a priority from its very beginnings, and facilitates the implementation of the **EU Floods Directive**. The **Danube Flood Risk Management Plan**, adopted in 2016, addresses all phases of the flood risk management cycle and focuses particularly on prevention (preventing

Cross-border solidarity

Efficient cooperation with all neighbouring countries, including coordinating joint actions on transboundary rivers during flood and ice defence, is not only essential to prevent floods but also to implement **The Solidarity Principle**. Countries should

involving several research ships, dozens of scientists and an intense, six-week sampling tour along the Danube and major tributaries. So far, surveys have been carried out in 2001, 2007, 2013, and 2019. The results of the survey are included in each cycle of the **Danube River Basin Management Plan**, and help Danube countries to select the right measures to solve problems in the basin.

damage caused by floods by avoiding construction of houses and industries in present and future flood-prone areas or by adapting future developments to the risk of flooding), protection (by taking measures to reduce the likelihood of floods or the impact of floods in a specific location such as restoring flood plains and wetlands) and preparedness (providing instructions to the public on what to do in the event of flooding).

share responsibilities fairly when measures are jointly decided for the common benefit, and measures should not be applied when their extent or impact would significantly increase flood risks in the countries upstream or downstream.

Cleaner

reduced pollution from settlements, industry and agriculture

Safer

with less damage from floods

Alerting downstream neighbours

Accidents can happen in the blink of an eye. But thanks to an upgraded **Accident Emergency Warning System (AEWS)**, messages about those accidents can be sent just as quickly. The AEWS is activated whenever there is a risk of transboundary water pollution, or threshold danger levels of hazardous substances are exceeded.

Achieving basin-wide goals

In a mere 25 years, the ICPDR has reached many milestones on its path to achieving the targets for cleaner, healthier and safer waters.

- Organic emissions have been cut to half the levels of 2005
- Nutrient pollution from phosphorus has been cut by 30%
- Nitrogen emissions have been cut by 10%

Did you know?

The Danube River Basin has been the site of many disastrous floods in the past – recent massive floods occurred in 2002, 2006, 2010, 2013 and 2014.

The work of the Danube countries and the ICPDR continues to bring together all stakeholders in the region to find a balance between the needs of the people living in the basin, and the needs of the river itself.

2008

Montenegro becomes the 15th ICPDR contracting party after seceding from Serbia

2009

First **Danube River Basin Management Plan (DRBMP)** is adopted by the ICPDR

2010

16 FEBRUARY **2nd Ministerial Meeting** is held; **Flood action plans** for the 17 sub-basins in the Danube catchment area get adopted

2011

Preliminary **Flood Risk Assessment (PDFRA)** Report is completed; **Integrated Tisza River Basin Management Plan** is approved

2012

ICPDR **Strategy on Adaptation to Climate Change** is published

20

Europe's Lifeline

The most international river in the world

From the Black Forest to the Black Sea, the Danube is a vital lifeline that flows through the heart of Europe. Covering more than 800,000 km² or 10% of continental Europe, the Danube River Basin draws water from 19 countries – making it the most international river basin in the world.

The Danube River

Source: **Donaueschingen, Germany**
 Length: **2,860 km**
 Width: **up to 1.5 km**
 Depth: **1–8 m**
 Average discharge: **7,000 m³/s**

The Waters of the Danube Basin

The Danube gathers the waters of more than 300 tributaries.

The main tributaries: **Inn, Morava, Drava, Tisza, Sava, Iskar, Siret, Prut**

Drava Sub-basin

The Drava River is the fourth largest and fourth longest Danube tributary at 719 km in length, and connects the Alps to the Danube and the Black Sea. The Drava flows through Austria, Slovenia and Croatia, where it forms the border between Croatia and Hungary before heading back into Croatia again to meet the Danube near Osijek. The Drava has been considerably regulated with dams constructed to generate hydro-electricity and channels dredged to direct its flow. Nevertheless, natural habitats along the middle and lower reaches host unique assemblages of flora and fauna, and several endemic species.

Did you know?

The large retention areas of the Sava are some of the most effective flood control systems in Europe.

Sava Sub-basin

The Sava contributes almost 25% to the Danube's total discharge where the two rivers meet in Belgrade, and has the largest discharge of water to the Danube of any tributary, with about 1,564 m³/s. It is also the second largest sub-basin by catchment area at 95,419 km².

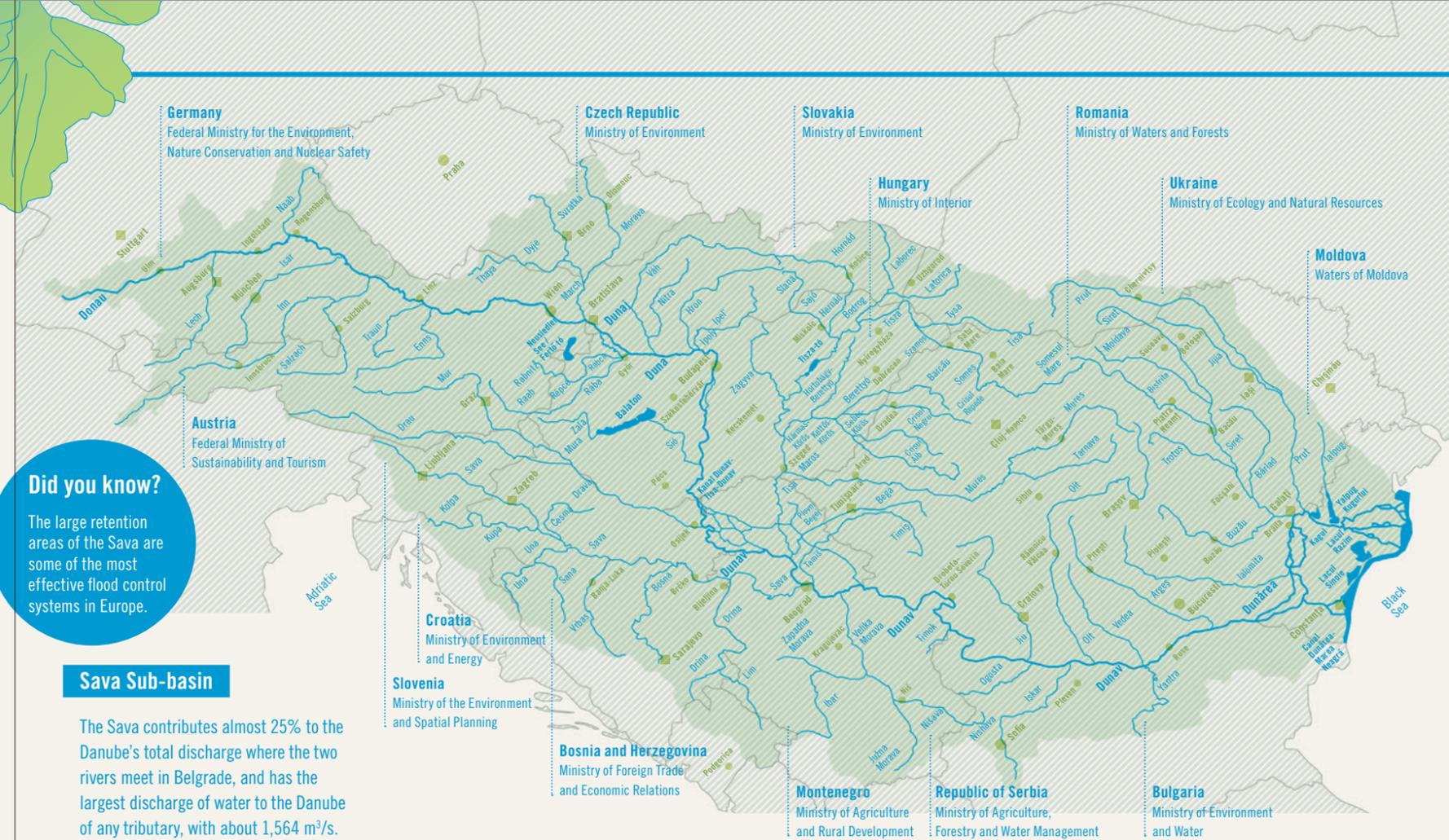
The river rises in the mountains of western Slovenia, and passes through the lowlands of Croatia before forming the border between Croatia and Bosnia and Herzegovina. Continuing through Serbia, it reaches its confluence with the Danube in Belgrade.

The **International Sava River Basin Commission** was established in 2005 to promote regional cooperation throughout the Sava River Basin on issues related to navigation, economic development, comprehensive water management and environmental protection.

Tisza Sub-basin

The Tisza is the longest tributary of the Danube (966 km) and the largest sub-basin, draining an area of 157,186 km². Mountain streams, meandering rivers and diverse floodplains are characteristic of the Tisza River Basin. Five countries share this beautiful sub-basin – Hungary, Romania, Serbia, Slovakia and Ukraine – along with the prob-

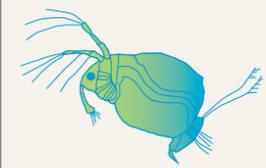
lems it faces. Frequent floods occur; landslides in the uplands have become more frequent due to deforestation; and accidental pollution and accidents at tailings dams (such as a cyanide spill at Aurul Baia Mare in January 2000) drastically affect wildlife and drinking water.



Danube Delta

The Danube Delta is shared by Romania and Ukraine, and is Europe's largest remaining natural wetland, covering more than 5,500 km². The unique ecosystems of the Danube Delta – a labyrinthine network of river channels, shallow bays and hundreds of lakes, interspersed with extensive marshes, reed-beds, islands and flood-plains – form a valuable natural buffer zone, filtering out pollutants from the Danube River, and helping to improve water quality in the vulnerable waters of the Black Sea.

It is one of the continent's most valuable habitats for wetland wildlife and biodiversity, but its ecosystems are affected by changes upstream, such as pollution and the manipulation of water discharge, as well as by ecological changes in the delta itself.



Black Sea

The Black Sea covers an area of 436,400 km², although the catchment area is six times larger than its surface. It is supplied by a number of major rivers, such as the Danube, Dnieper, Rioni, Southern Bug and Dniester. The **Convention on the Protection of the Black Sea Against Pollution** (Bucharest Convention) was established in 1992 by the six Black Sea countries – Bulgaria, Georgia, Romania, Russia, Turkey and Ukraine – in order to control land-based sources of pollution, stop the dumping of waste and support joint actions in the event of accidents (such as oil spills).

Did you know?

The Black Sea is the world's most isolated sea, connected to the ocean only through the Istanbul Strait, a 35 km natural channel which is as little as 40 m deep in places.

The ecosystems of the Danube River Basin are highly valuable in environmental, economic, historical and social terms, but they are subject to pressures and pollution from agriculture, industry and cities – issues which are jointly addressed by the Danube Basin countries through the ICPDR.



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ICPDR member **Croatia** joins the EU; **JDS3** is carried out

2014

The **Danube Basin Analysis Report** is updated; **Danube Day** celebrates its **10th anniversary**

2015

2nd DRBMP and **1st Danube Flood Risk Management Plan (DFRMP)** adopted

2016

ICPDR declares its three pillars of “**cleaner, healthier and safer waters for everyone to enjoy**” at the **3rd ICPDR Ministerial Meeting**

2017

Severe ice events throughout the region trigger groundwork for the **ICPDR comprehensive Ice Report**

2018

Sturgeon Strategy and Update to the Strategy on Adaptation to Climate Change are published

2019

ICPDR celebrates **25 Years of the DRPC**; **JDS4** is carried out