

International Commission for the Protection of the Danube River

Internationale Kommission zum Schutz der Donau

## Shared waters – joint responsibilities

ICPDR Annual Report 2022







Looking back on the past year, I am proud to have served as the President of the International Commission for the Protection of the Danube River (ICPDR) during this critical time as we came to the end of our third six-year management cycle. The ICPDR is an institution that represents the shared priorities and aims of all its Contracting Parties. We are committed to working together to ensure the well-being of the Danube River Basin. I am honoured to introduce this annual report.

This report showcases the wide range of activities that the ICPDR undertook during 2022, highlighting the ever-expanding responsibility of this vital organization as necessitated by the multifunctional and multi-faceted nature of the Danube River Basin itself.

As the ICPDR President, I had the privilege of leading the ICPDR development process in 2022. The ICPDR demonstrated its ability to mobilize and coordinate national expertise, stakeholder involvement, and the broad community of observers within river basin management development. We also had the honour of presiding over the online Danube Ministerial Meeting 2022, a landmark event that provided each contracting party with an opportunity to offer their input for the continued well-being of our shared basin. Our presidency also witnessed the successful dissemination and launch of the Danube River Basin Management Plan (DRBMP) Update 2021 and the Danube Flood Risk Management Plan (DFRMP) Update 2021.

Lastly, I would like to express my deepest appreciation for the cooperation and support I received at all levels during my term, particularly from member countries and their governments, and last but not least, from the ICPDR Secretariat.

I look forward to continuing to work together towards our goals and to ensuring the protection and well-being of the Danube River Basin. I wish the Serbian 2023 Presidency all success in taking forward our shared mission.

Sincerely, Róbert-Eugen Szép



**Róbert-Eugen Szép**ICPDR President 2022

## ICPDR highlights in 2022

In 2022, the ICPDR returned to a pre-pandemic volume of operations with major developments in our vision for a cleaner, healthier, and safer Danube River Basin.

## The following highlights are just a few from the multitude of initiatives executed by the ICPDR in the Danube River Basin in 2022:

- The DFRMP Update 2021 was adopted at the OM 24. At the 4<sup>th</sup> ICPDR Ministerial Meeting in February 2022, the DFRMP Update 2021 was endorsed by the Ministers and Minister Representatives responsible for water management from the Danube River Basin countries.
- In October 2022, a preparatory meeting for the 2023 UN Water Conference took place in New York and online. The Conference will address the critical role of water on the path to a more sustainable future. The conference is a great opportunity to demonstrate the frontrunner role of the ICPDR regarding transboundary cooperation, water resources management, and its game-changing actions toward the future. The Secretariat applied for and was accepted for ICPDR special accreditation to the UN Water Conference. The UN Water Conference will take place in New York in March 2023, with our Executive Secretary scheduled to be present.
- An international conference took place in Vienna at the end of November 2022. The International River Symposium in which the Secretariat hosted a fruitful roundtable discussion with the Mekong Commission, the ORASECOM, the Okavango Commission, and the National Mission for Clean Ganga to exchange on synergies and challenges.
- In February 2022, the ICPDR was approached by Erste Group Bank (EGB), who expressed their interest in a cooperation. The partnership aims to support ICPDR public outreach activities and increase awareness of water sanitation and preservation needs. The EGB wishes to support ICPDR through the current Danube River Basin Management Cycle until 2027. Piloting joint activities are planned in selected countries for 2023.

- The ICPDR welcomed its new Executive Secretary,
   Ms. Birgit Vogel, in August 2022.
- The Secretariat published the JDS4 database at <a href="https://data.danubesurvey.org/jds4">https://data.danubesurvey.org/jds4</a> and linked it from the main JDS4 website at <a href="http://www.danubesurvey.org/jds4/">https://database is to the JDS4 database is open to the public, similar to the approach used in DanubeGIS. Brainstorm-ing for the JDS5 concept and topics also began.
- The APC EG conducted two tests on the Danube Accident Emergency Warning System (AEWS). One of the tests was a comprehensive multinational test. The tests obtained positive results with active Principal International Centres (PIAC) participation and confirmed that the system works as expected. The details of incidents provided by the warning reports showed that the PIACs have a very good understanding of how to operate the AEWS.
- The 18th edition of Danube Day took place in 2022. In commemoration of this, the PP EG held an interactive review of Danube Day activities over the years, giving the countries an opportunity to reflect on their experience with Danube Day and submit their feedback and suggestions via the #haveyoursay questionnaire.
- In the fourth year of the ICPDR's social media campaign, the "Country Takeover Week" campaign continued, and general activity showed a steady positive increase in followers across all platforms.

The monthly 'Country Takeover' campaign has been a resounding success on the ICPDR's social media platforms. The second round of "Country Takeover" social media posts began in 2021 and concluded in 2022. Having run through all of our members, this ICPDR social media project will continue in 2022/2023, with the third instalment launched in November 2022.



## Like every year, the ICPDR continues to be involved in key projects which contribute to the well-being of our river basin, including:

- The LIFE WILDisland project aims to strengthen ecological connectivity, promote the Danube WILDisland Habitat Corridor, preserve the natural wilderness in the heart of Europe, promote river dynamics and intact sediment regime, and demonstrate good practice for cross-sector and cross-border cooperation. With support from ICPDR, the LIFE WILDisland kick-off conference was held in Vienna in May 2022.
- The Danube Hazard m³c project started in July 2020 and is supported by the Interreg programme. It brought together 11 Project Partners from 9 countries. It concluded at the end of March 2022.
- The WACOM project aims to better the coordinated response to emergencies in case of accidental pollution and floods on transboundary watercourses in the Sava River Basin. The WACOM project will enable the development of response mechanisms.
- The Tid(y)Up project, which began in 2020 and concluded in December 2022, brought together 10 project partners and 11 associated partners, including the ICPDR, to focus on the improvement of water quality and reduction of plastic pollution of the Tisza River from its source to the Black Sea.

## The ICPDR also provided participation and partnership in important activities and events both in the DRB and across the world.

- The 2nd Sava RBM Plan was endorsed on 26 July 2022 and approved at the 9th Meeting of the Parties to the Framework Agreement on the Sava River Basin, held on 9 December 2022 in Zagreb.
- The Tisza River Basin finalised project proposals for the first submissions of the Danube Region Programme, which included the proposal for the JOINTISZA 2 project. The final project proposal was submitted for the first DRP call in November 2022. The Tisza was also shortlisted for the European River Prize.









The 2022 BATHING WATER REPORT by the EEA and EC, indicating significant improvements in Europe's bathing water quality, aligns with ICPDR's environmental efforts. About 85% of European bathing sites, including those in the Danube River Basin monitored by the ICPDR, now achieve "excellent" ratings.



On May 20, 2022, the ICPDR participated in the "LONG NIGHT OF RESEARCH" in Vienna, alongside UN organizations like CTBTO, IAEA, and others. At this prominent science event, the ICPDR showcased its latest initiative, the fourth Joint Danube Survey (JDS4), a leading surface water monitoring project.



In 2022, **SEVERE DROUGHTS**, exacerbated by the climate crisis, affected over 60% of EU and UK land, an area comparable to India. The Danube River Basin, which experienced significant droughts in 2003 and 2015, confronted similar conditions again. The ICPDR, aware of the potential ecological, economic, and health repercussions, has intensified its efforts to tackle water scarcity and droughts in the Danube River Basin.

### Working Together: the ICPDR's operational and institutional framework

Since its establishment in 1998, the International Commission for the Protection of the Danube River has brought together representatives from the highest ministerial levels, technical experts, members of civil society, and the scientific community and has worked towards a better future for the Danube and its tributaries.

The ICPDR is the largest international body of European river basin management experts. Its mission is to promote and coordinate sustainable river and water management methods for the benefit of all citizens of the Danuhe River Basin.

#### Structure of the ICPDR

On 29 June 1994, Danube countries came together and signed the Danube River Protection Convention (DRPC), which came into force in October 1998. Since then, the ICPDR has served as a forum for coordination and cooperation on fundamental water management issues. It takes all appropriate legal, administrative, and technical measures to maintain and improve the quality of the Danube River Basin and its tributaries. The ICPDR is made up of 15 Contracting Parties: Austria, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Germany, Hungary, Moldova, Montenegro, Romania, Serbia, Slovakia, Slovenia, Ukraine, and the European Commission.

The work of the ICPDR is guided by two group meetings: an Ordinary Meeting, which establishes policy and strategy, and a Standing Working Group, which provides guidance and prepares key decisions. Working alongside these are Technical Expert Groups, Task Groups, and representatives of stakeholder groups that provide the scientific and technical basis for ICPDR's work.

Expert groups (EG) are one of the most active and vital parts of the ICPDR structure. They assist in meeting the requirements specified under the DRPC and work along with the implementation of the EU Water Framework Directive (WFD) and the EU Floods Directive (FD).

#### There are currently seven expert groups:

- River Basin Management Expert Group (RBM EG)
- Pressures and Measures Expert Group (PM EG)
- Monitoring and Assessment Expert Group (MA EG)
- Accident Prevention and Control Expert Group (APC EG)
- Flood Protection Expert Group (FP EG)
- Information Management and GIS Expert Group (IMGIS EG)
- Public Participation Expert Group (PP EG)

#### **List of Expert Group Chairpersons**

Group Name	Name	Nominated by	Organisation
RBM EG	Jane Korck	Germany	LFU Bayern
RBM EG	Daniela Buzica	European Union	EU, DG Environment
PM EG	Adam Kovacs	ICPDR	ICPDR
MA EG	Franz Wagner	Austria	BML
APC EG	Iurii Nabyvanets	Ukraine	Ukrainian Hydrometeorological Institute
APC EG	Janez Polajnar	Slovenia	Slovenian Environment Agency
FP EG	Clemens Neuhold	Austria	BML
IMGIS EG	Dragos Ungureanu	Romania	Romanian Waters
PP EG	Susane Brandstetter	Austria	BML

Task groups were established under the responsibility of the permanent expert groups, and they are called upon to provide insights on specific tasks. They consist of delegates from existing expert bodies and additional affiliated experts and specialists.

#### There are currently 4 Task Groups:

- Hydromorphology Task Group (HYMO TG)
- Economics Task Group (ECON TG)
- Groundwater Task Group (GW TG)

Nutrient Task Group (N TG)

#### **List of Task Group Chairpersons**

Group Name	Name	Nominated by	Organisation
Economics	Cristian Rusu	Romania	Romanian Waters
Groundwater	Andreas Scheidleder	Austria	Umweltbundesamt
Hydromorphology	Petra Repnik	Slovenia	Slovenian Water Agency
Nutrient	Franz Überwimmer	Austria	Office of the Upper Austrian Government



The ICPDR strongly believes that environmental protection is a community responsibility and the active involvement of the public is a core principle in sustainable water management. So far, the following 24 organisations have taken the opportunity to become ICPDR observers:

- Black Sea Commission (BSC)
- Carpathian Convention
- CEEweb for Biodiversity
- Central Dredging Association (CEDA)
- Danube Civil Society Forum (DCSF)
- Danube Competence Center (DCC)
- Danube Commission (DC)
- Danube Environmental Forum (DEF)
- Danubeparks
- Danube Sturgeon Task Force (DSTF)
- Danube Tourist Commission
   (DIE DONAU)

- European Anglers Alliance (EAA)
- European Barge Union (EBU)
- European Water Association (EWA)
- Friends of Nature International (NFI)
- Global Water Partnership (GWP-CEE)
- International Association for Danube Research (IAD)
- International Association
   of Water Service Companies in the
   Danube River Catchment Area
   (IAWD)

- International Hydrological
   Programme of the UNESCO (IHP/Danube)
- International Sava River Basin
   Commission (ISRBC)
- RAMSAR Convention on Wetlands
- VGB PowerTech e.V. (VGB)
- viadonau
- World Wide Fund for Nature –
   Central and Eastern Europe (WWF-CEE)





## River Basin Management: Securing a Sustainable Future for the Danube River

It is the responsibility of the River Basin Management Expert Group (RBM EG) to develop activities relevant to the implementation of the Water Framework Directive and the development of the Danube River Basin Management Plan. Furthermore, the Hydromorphology Task Group and Economics Task Group both report to the RBM EG.

In 2022, the RBM EG's key focus fell on the discussions for the WFD cycle 2022–2027, the Interim Report on the Joint Programme of Measures 2024. The project "Development of a harmonised water balance modelling system for the Danube River Basin" was submitted to the Interreg DRP 1st Call in November 2022. Additionally, the group continued their efforts on projects such as WePass 2.

In the fall of 2022, the RBM discussed plans for the WFD cycle 2022–2027, with input from relevant ICPDR groups. Feedback from the RBM EG was used to prioritise activities. The RBM EG Co-Chairpersons will also prepare for an ICPDR Chairpersons Meeting in January 2023 to plan for the DRBMP Update 2027.

Discussions for the Interim Report on the Joint Programme of Measures 2024 also began.

Due to COVID-19, the 27<sup>th</sup> HYMO TG meeting was organised online on 16 March 2022. Activities and next steps outlined in the HYMO TG Work Programme 2022–2024 were conducted at the meeting. The focus was on HYMO assessment methods, harmonisation of HYMO methodologies, and the implementation of HYMO measures.

The 28th HYMO TG meeting was held in person on 28–29 September 2022 in Vienna.

In May 2022, a first draft concept of JDS5 HYMO activities was prepared and discussed with the ICPDR HYMO JDS5 Drafting Core Group in June 2022. The draft concept was submitted for written comments until mid-July 2022. From mid-November 2022 until mid-December 2022, the draft was updated for comments by the HYMO TG. The draft will be a basis for a concrete HYMO JDS5 concept draft for the HYMO-29 in March 2023.

In 2022, activities were ongoing on transferring the implementing agency role from WWF to UNDP for the GEF Danube River Basin Hydromorphology and River Restoration (DYNA) Project.

The 24th ECON TG Meeting was organised online due to COVID-19 on 30 March 2022. Activities and next steps were discussed for the ECON TG Work Programme 2022–2024.

A questionnaire was prepared before ECON-25 to follow up on budget discussions for WFD implementation. The 25<sup>th</sup> ECON TG Meeting took place in a hybrid format from 6–7 October 2022 in Bratislava.

After seven project preparatory meetings between September and November, the project "Development of a harmonised water balance modelling system for the Danube River Basin" was submitted to the Interreg DRP 1st Call in November 2022. The project aims to improve data management, develop a water balance model, and create water balance scenarios for the Danube River Basin and four selected sub-basins. The CWatM model was best suited for the Danube water balance model. IIASA, as owner of the model, was invited as a project partner to the project consortium.

The 13th Joint Statement Meeting took place on 14–15 September 2022 in Budapest. The DC, ICPDR, and ISRBC organised the meeting.



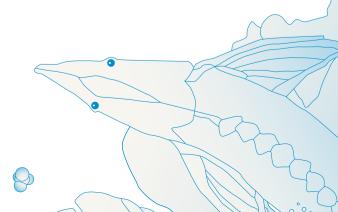
In January 2022, the We Pass project's final (technical and financial) report was submitted to the EC, which was accepted in February 2022.

In 2022, progress continued on the WePass 2 project. It included monitoring migratory fish movement, hydraulic modelling, identifying fish migration options, and preparing for a meeting with stakeholders to determine preferred options for preliminary design. The interim report was completed in September 2022. Further activities will continue in 2023.

The LIFE Boat4Sturgeons project (2022-2029) has a budget of 11.8 million EUR and ten partner organisations from 8 countries. It aims to construct and operate two facilities, establish a diverse broodstock for Danube sturgeon species, release them with a focus on genetics and survival, create a monitoring system, and disseminate scientific findings.

Close coordination with the DSTF was ongoing through 2022. A progress report on the DSTF activities was provided during the RBM-55 meeting in May 2022. A DSTF General Assembly also occurred in Vienna from 5–6 December 2022.

The RBM EG is also continually informed on sub-basin-related activities (Tisza and Sava) and ensures an efficient information exchange between the RBM EG and the EU Strategy for the Danube Region (EUSDR).



### Pressures and Measures: Assessing Challenges and Targeting Priorities

The Pressures and Measures Expert Group (PM EG) plays a vital role in understanding the environmental and other pressures facing our Danube River Basin. This understanding is essential for our long-term sustainable development – as is assessing the efficacy of proposed alleviating measures.



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The PM EG continued its work on the issue of wastewater management with workshops and other initiatives. Other highlights included the ongoing DANUBE HAZARD and Tid(y)Up project's progress, along with the Nutrient Task Group's planned activities.

In 2022, the PM EG began discussing developing a short and illustrative format of the interim report for the public. The plan is to use data from the DRBMP Update 2021. Best-case examples will be collected from the countries to include in the report. The proposals were shared with the RBM EG for further consideration by the Secretariat.

At the 36th PM EG meeting, a Tour de Table discussion on future topics and activities was conducted, focusing on the existing activities to be continued or revised and additional topics to be addressed.

In February 2022, the ICPDR co-organized a workshop on sustainable financing for wastewater services with the Danube Water Program and IAWD – the event aimed to enhance the financial sustainability of wastewater services in the Danube region. The Danube Water Program wrote the workshop report. The presentations are available on the event webpage. Created with the World Bank and the Danube Water Program, the wastewater initiative aims to modernise wastewater management, develop sector policies, and comply with UWWTD provisions. Thematic workshops on rural/small-scale management and financial sustainability were held, along with an event on sludge management with the EU Strategy for the Danube Region and the International Sava River Basin Commission.

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The Danube Hazard m³c project remains crucial for PM EG with regard to effectively manage hazardous substances pollution. The pilot monitoring campaigns were completed in August 2022, and the data was analysed to improve the basin-wide emission model. Capacity-building events on monitoring and modelling were held, resulting in a technical manual based on the outcomes. Moreover, a policy recommendation paper has been developed to support Danube countries in managing chemical pollution. The final conference and workshop of the project were held in November 2022 to showcase project outcomes and present the policy guidance. In addition, a new project consortium has been established for the project's second phase. The new project would aim at developing and providing tools and capacity for the Danube countries.

The Tid(y)Up project presented progress on plastic pollution in the Danube River Basin to the PM EG. A policy guidance document was created to provide recommendations on sustainable management, which will serve as a sound basis for developing an ICPDR recommendation paper on plastic pollution. The PM EG welcomed the project outcomes and agreed that the project provides a scientific, practical and policy interface and establishes a solid link to the public through dissemination and awareness-raising of the efforts to overcome the challenge of plastic pollution.

A Tour de Table discussing future topics and activities, focusing on both the existing activities to be continued or revised and additional topics to be addressed, was held by the Nutrient Task Group at the 17<sup>th</sup> PM EG meeting.

The Nutrient Task Group also discussed the planned activities related to the MONERIS model application, which is being improved with updates that will enrich the informative value and increase the accuracy of the model results. The model database was analysed to identify international data sources and reduce the data collection burden.

The Secretariat discussed and planned a follow-up process on sustainable agriculture, building on the guidance document and its recommendations. Discussions will be held with the key actors in winter 2023, followed by a consultation with potential partners.

During the 35<sup>th</sup> PM EG, Ms. Elena Tuchiu announced her departure as Chairperson of the PM EG. Candidates are still open for nomination by the countries. In the meantime, the Technical Expert for Pollution Control has remained the interim chair of the group.

## Monitoring and Assessment (MA EG): Quantifying Problems and Monitoring Progress

The Monitoring and Assessment Expert Group (MA EG) is responsible for all water quality monitoring and assessment issues, including the Joint Danube Survey (JDS). The group's scope covers the Trans-National Monitoring Network (TNMN) operations, including its Analytical Quality Control (AOC) programme.

Top priorities for 2022 included the publication of JDS4 databases to the public, plans & discussions for the upcoming JDS5, and the addition of a new activity, Biodiversity, to the MA EG Work Programme for 2022–24.

The MA EG discussed the WFD status assessment of non-permanent rivers. This topic became relevant during the summer when, due to the scarcity/drought situation, some river reaches fell dry and had no water. The MA EG agreed to include the status assessment of non-permanent rivers in the agenda of the following MA EG meeting.

JDS4 experts were preparing manuscripts on WFD BQEs macrozoobenthos, fish, phytoplankton, phytobenthos, and macrophytes to be published in the Scientific Data, which is an open-access online journal for descriptions of scientifically valuable datasets and research that advances the sharing and reuse of scientific data. Scientific Data can be found on <a href="mature.com">nature.com</a>, a popular destination for millions of scientists globally every month.

Similar to the approach used in DanubeGIS, the JDS4 database was made open to the public. Based on the decision taken at the MAEG-35, the Secretariat published the database at <a href="https://data.danubesurvey.org/jds4">https://data.danubesurvey.org/jds4</a>, which is linked from the main JDS4 website.

Brainstorming was ongoing in the MA EG on the concept and topics for the upcoming JDS5. It was agreed that eDNA monitoring would be one of the key topics for JDS5.

Biodiversity was the new MA EG Work Program activity for 2022–24. This new activity, led by Serbia, focused on the available data without putting an additional monitoring burden on countries. The outcomes will be continuously reported in an "ICPDR Biodiversity Report" by the newly created ad-hoc Biodiversity Drafting Group (BDG).

The MA EG discussed the necessity to continue collecting comparable data on invasive alien species (IAS). The discussion focused on identifying additional surface water bodies. It was agreed that the relevant data on IAS will also be available for the selected tributaries. The reference years of the IAS activity for tributaries will be 2016–2021.

Slovakia prepared the final draft of the TNMN Yearbook 2020 in July. It was approved by the MA EG and afterwards by the ICPDR in December 2022.

The analytical quality control scheme QualcoDanube 2022 focused on nutrients. The samples were distributed in September, with reporting taking place in November.

The Updated Groundwater Guidance v 4.0 is a living document providing technical guidance and will be continuously updated and completed according to the developments and agreements within the GW TG. The first edition was published in 2008; the last revision was in 2016. With the completion of the current RBM cycle, the Groundwater Guidance v 4.0 was prepared and commented on at the end of July 2022. The GWTG-32 agreed on the final Groundwater Guidance in August 2022, which was adopted by the ICPDR in December 2022.



# Accident Prevention and Control Expert Group: Reducing Risks and Responding to Water Emergencies

The Accident Prevention and Control Expert Group (APC EG) focuses on testing and maintaining the Danube Accident and Emergency Warning System (Danube AEWS) and updating inventories of accident hazard sites (AHS).

In 2022, the APC EG carried out two AEWS tests, along with the publication of a new brochure on accident prevention and control and the start of a new project regarding Tailings Management Facilities.

Information on AEWS Incidents, which were triggered between October 2021 and November 2022, was presented in the APC EG Chairpersons' report.

A 24/7 preparedness test of the Danube Accident Emergency Warning System (AEWS) was conducted on 19 April 2022 in the evening, with a comprehensive multinational one following on 13 October 2022 during the APCEG-14. All 14 PIACs participated in the tests, verifying the system's functionality and the PIACs' ability to actively use the system in response to an accident. The Danube AEWS system worked as expected, with smooth reactiveness and connectivity to the server throughout the test. It was recommended that all PIACs continue to make all efforts to ensure their continuous 24/7 operation and that Contracting Parties ensure that their PIACs are adequately equipped and staffed to fulfil their tasks. The warning reports provided by the PIACs contained detailed incident information.

Due to the high interest from Danube countries in obtaining the complete technical information on the hazard and risk assessment methods published in the DRBMP Update 2021, the APC EG decided to develop a detailed technical report.

The Secretariat developed a draft technical report on accident hazard and risk assessment in line with the respective resolution of the APC EG adopted at the StWG-20. The draft report was discussed at the fall APC EG meeting in 2022.



The technical report presents the results of the latest hazard and risk assessments based on the updated inventories. It summarises the inventory development for Accident Hazard Sites (AHS) and Tailings Management Facilities (TMF), describes the applied methodologies (Water Hazard Index, Tailings Hazard Index, Tailings Risk index), and discusses the assessment results with a focus on the most hazardous AHS and TMF in the basin. Moreover, it includes recommendations on sustainably preventing accidental pollution at the most dangerous sites. The APC EG members will provide further written comments, and the report will be finalised in spring 2023.

The APC EG developed a public report and a brochure on accident prevention and control. The final documents were published in October 2022. The documents are available on the ICPDR website, and a limited number of printed versions were also produced.

The APC EG made further efforts regarding the TMF safety, with a new project being prepared aimed at enhancing coordinated prevention, preparedness, and disaster management activities to mitigate potential transnational TMF-related risks in the Danube River Basin. The project has three pillars: policymaking, innovation, and practice. Initiated by the ICPDR and the EUSDR PA5, the project proposal was submitted to the new Danube Regional Programme in November 2022. The ICPDR agreed to participate in the project as an associated strategic partner with an observer role.

The APC EG strengthened its cooperation with the UNECE. At the APCEG-14, the possible joint activities between the UNECE Joint Expert Group (JEG) and the APC EG were discussed. It was decided that some of the future events could be jointly organised with the ICPDR. Moreover, both the JEG and the ICPDR will follow the implementation of the planned TMF project. The JEG will also have knowledge exchanges with experts from other regions and river basin organisations to have a broader outlook on other UNECE regions.



# Flood Protection: Sustainable Solutions for the entire Danube River Basin

The task of the Flood Protection Expert Group (FP EG) is to assess, map, manage and mitigate flood risks, and thus, it forms the foundation for integrated basin-wide flood risk management in the Danube River Basin.



This year, the FP EG saw the adoption and endorsement of the DFRMP Update 2021 and the start of discussions for the 2027 update. Work also continued on the Danube HIS and Danube Floodplain projects.

The DFRMP Update 2021 was adopted at the OM 24. At the 4<sup>th</sup> ICPDR Ministerial Meeting in February 2022, the DFRMP Update 2021 was endorsed by the Ministers and Minister Representatives responsible for water management from the Danube River Basin countries. DFRMP Update 2021 was submitted to the European Commission on 16 March 2022.

During the FPEG-42, there were discussions about incorporating comments from the DFRMP 2021 public consultation into the new DFRMP Update 2027, and it was agreed that a new sub-chapter on the implementation of measures will be added to the DFRMP 2027.

The DAREFFORT project introduced the biennial Danube Forecasting Forum (DAFF). After the end of the DAREFFORT project, it was recommended that DAFF continue under ICPDR or as a part of the EFAS process. It was agreed that DAFF 2023 will be organised by the EUSDR PA5 in the second half of 2023, preferably back-to-back with the FP EG meeting.

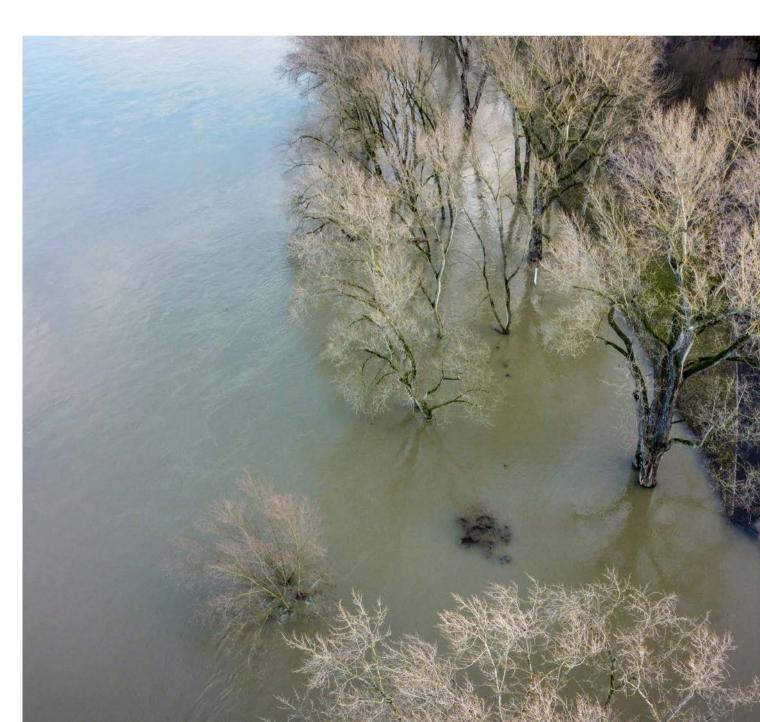
The Secretariat has developed a prototype application of the Danube Hydrological Information System (DanubeHIS) for viewing the near-real-time data on water levels, river discharge, water temperature and precipitation made available by data providers throughout the Danube River Basin. The FP EG discussed thoroughly the technicalities for data transfer and further implementation of the DanubeHIS. The FP EG also decided that the low-water levels would be included in the DanubeHIS.

Related to this, the "DanubeHIS Policy document for data exchange" was adopted by the FP EG and sent to all data providers for comments. After incorporating the feedback received, the updated document was redistributed to the data providers. At the 41st FP EG Meeting, the Secretariat asked the FP EG members to contact their respective national data providers to provide the preliminary acceptance of the amended draft of the DanubeHIS Policy document. Once this is done, the Secretariat will prepare the formal Policy acceptance procedure.

The Danube Floodplain (ERDF) project aims to improve transnational water management and flood risk prevention while maximising benefits for the aquatic ecosystem. The project budget was 4 million EUR. All deliverables are available on the project website:

http://www.interreg-danube.eu/approved-projects/danube-floodplain.

The DAREnet project continued as well. It aimed to support flood management practitioners across the Danube River region and from different disciplines to deepen and broaden their research, development, and innovation-related collaboration. In 2022, the Budapest Firefighting Association (BTSZ) joined the project.



Information Management and Geographical Information System: Mapping out a Brighter Future for the Danube

The Information Management and Geographical Information System Expert Group (IMGIS EG) plays a vital role in conceptualising, informing, presenting and supporting the tasks of the ICPDR. It's responsible for developing and maintaining datasets, maps, and online systems, such as ICPDR DanubeGIS.

GIS maps provide a detailed picture of the basin's current state, usage, and management. This information aids in forecasting future scenarios and identifying areas with optimal potential.

In 2022, the IMGIS EG held two meetings. The 34<sup>th</sup> IMGIS EG Meeting was held online on 29 March 2022. The 35<sup>th</sup> IMGIS EG Meeting was held from 4–5 October 2022 in Celje, Slovenia – this was the first in-person IMGIS EG meeting after three years and was attended by most of the ICPDR countries.

In July 2022, the Serbian Head of Delegation notified the ICPDR that Ms. Dragana Ninković was no longer an official representative of the Republic of Serbia to the ICPDR and asked to initiate procedures for the election of a new chair-person of the IMGIS EG. A nomination was submitted from Romania proposing Mr Dragos Ungureanu (a long-term IMGIS EG member) to be considered for the position. The proposal was discussed in the IMGIS EG meeting and accepted unanimously, and Mr Dragos Ungureanu was welcomed as a new chairperson to the IMGIS EG. For the Vice-chairperson position, Mr Thomas Rosmann (Austria) was nominated, accepted unanimously, and welcomed by the IMGIS EG. The Heads of Delegations approved the election of the new chairpersons at the 25th Ordinary Meeting of the ICPDR.

The Secretariat prepared the draft web versions of the DRBMP and DFRMP Update 2021 maps for internal DanubeGIS review. Additionally, online maps based on the results of the Danube FLOODPLAIN and the MEASURES projects were made available.



The reviewed maps were published for online access by self-registered <code>DanubeGIS</code> users. The operating system and basic system components (database and map server) for the Danube-GIS were also replaced with the latest stable versions of these components.

The Data Exchange software for the future DanubeHIS developed in the DAREFFORT project was implemented in most of the DRB. Data submissions to the central Distribution Node operated by the ICPDR Secretariat were continuously ongoing to test the system. The Secretariat will further develop the DanubeHIS web application to search, view, and export available data.

As support to the FP EG, the IMGIS EG reviewed and updated the DanubeGIS templates for water gauging stations (WGStn) and precipitation stations (PStn). This will enable tight integration and synchronisation of the DanubeGIS and DanubeHIS stations metadata, including related names of rivers and subbasins (for which the already available Flood Protection Reporting Units dataset is used).

## Public Participation: Promoting Public Participation and Communication in the Danube

The Public Participation Expert Group (PP EG) is responsible for outreach activities, publicises information about the Danube River Basin to encourage involvement, and is central to the activities of the ICPDR.

In 2022, the PP EG celebrated several milestones, such as the 18<sup>th</sup> anniversary of Danube Day celebrations and a new cooperation with the Erste Group Bank.

In February 2022, the 4th Danube Ministerial Meeting was held online, having exceptionally transitioned from an in-person meeting. The meeting was a resounding success. Ministers and representatives from the ICPDR contracting parties made significant statements during the meeting. They participated in the endorsement of the DRBMP & DFRMP Updates 2021 and the subsequent adoption of the Danube Declaration 2022.

As was done in previous years, a public brochure was produced for each plan in addition to the full versions of the Danube River Basin Management Plan Update 2021 and Danube Flood Risk Management Plan 2021. These documents have been created with improved digital functions, such as clickable links and navigable tables of contents, while still maximising utility as a paper publication. The brochure was a part of the ICPDR's focus on moving away from paper towards more paperless solutions and digital document reporting.

The last printed issue of the Danube Watch magazine was published in 2021 after it was agreed upon that the ICPDR would digitise most ICPDR communications. The digitisation of ICPDR's communication was paired with the start of preparations for the relaunch of the ICPDR website.

The new website is planned to be launched in 2023. It will be designed to be accessible, coded for use by people with disabilities, and compatible with lower screen resolutions. The site's structure should ensure clear navigation and present information in a user-friendly manner for quick and easy access.

Danube Day 2022 marked the 18<sup>th</sup> anniversary of Danube Day celebrations, with activities occurring throughout the Danube. In commemoration of this, the PP EG held an interactive review of Danube Day activities over the years, allowing the countries to reflect on their experiences and submit feedback and suggestions via the #haveyoursay questionnaire. The PP EG proposed that the motto in 2023 would be "Keep the Danube Blue," with blue as the colour scheme.

The Danube Art Master 2022 competition winners were announced at the Ordinary Meeting following the presentation by PP EG Chairperson Susanne Brandstetter. First discussions have already started on preparations for Danube Art Master 2023. Due to leftover budget from the 2021 competition, the DAM project management team has created a new logo for Danube Art Master, to be launched in 2023.

In May 2022, the ICPDR and other UN-based organisations participated in the "Long Night of Research" ("Lange Nacht der Forschung.") The ICPDR set up a booth with interactive displays and welcomed visitors to learn about the ICPDR's latest and fourth Joint Danube Survey (JDS4). The International Atomic Energy Agency (IAEA) organised the event with the participating Vienna-based organisations and the Long Night of Research.

Since its introduction in 2019, the monthly 'Country Takeover' social media campaign has been a resounding success, thanks to the participation and contributions from our member countries and the European Union. The second round of the "Country Takeover" began in 2021 and concluded in 2022. Having run through all of our members, this social media activity will continue in 2022/2023, with the third instalment launched in November 2022.

In February 2022, the ICPDR was approached by EGB, expressing their interest in a partnership. The PP EG welcomed the opportunity and is now looking forward to a fruitful cooperation, which could start in 2023.

## Partnership and cooperation: Planning with the Danube's Sub-Basins

Forging strong, successful partnerships at the local, national, and international levels makes the work of the ICPDR a model for the rest of the world.

The ICPDR is committed to promoting cooperation with sub-basins within the DRB and forming partnerships with neighbouring regions. This collaboration and a strong association with the EU's Strategy for the Danube Region are essential for our river basin's sustainable and integrated management.

#### Sava River Basin

The final draft of the 2nd Sava RBMP was endorsed on 26 July 2022 and approved at the 9th Meeting of the Parties to the Framework Agreement on the Sava River Basin on 9 December 2022 in Zagreb. Activities for the project "Water Contingency Management in the Sava River Basin" (WACOM) were ongoing in 2022, with the final project conference held in November 2022 in Sarajevo. The project officially concluded on 31 December 2022. The Sava PFRA report was updated and published. Sava's Flood Forecasting Warning System (FFWS) also received a new update with the latest version of Delft FEWS software (2021.01). The Sava Commission was also involved in the preparation of the technical documents and rules related to navigation, along with organising the 13th Meeting on the Follow-up of the Joint Statement on Guiding Principles on the Development of Inland Navigation and Environmental Protection in the Danube River Basin, which was held in Budapest on 15-16 September 2022. The Sava GIS system (http://savagis.org) had approximately 2900 unique users in 2022, while the Sava HIS system (http://savahis.org) saw about 1400 unique users.

Additionally, the commission has recently redesigned its official website (www.savacommission.org). It is now available in all official languages of the commission and English. In March 2022, the Sava Commission and the World Bank finalised the draft GEF Grant Agreement for implementing the regional component of the Sava-Drina River Corridor Integrated Development Program (SDIP). The agreement was signed in August 2022. SDIP supports water management activities in the Sava River Basin, to be implemented by mid-2026. Lastly, the 10th Sava Youth Parliament took place in Belgrade in October 2022. The event focused on emergency management and was funded

by the WACOM project. Six schools in the Sava River Basin participated, with over 40 secondary school students and professors in attendance.

#### Tisza River Basin

The focus of the activities on the Tisza River Basin has been the finalisation of project proposals for the first submissions of the Danube Region Programme. The updated JOINTISZA 2 project proposal was sent to the countries and partners for comments. The final project proposal was submitted for the first DRP call in November 2022. The nomination for the European River Prize was submitted. The Tisza cooperation was shortlisted but not selected as a winner. A hybrid meeting of the 30th ICPDR Tisza Group was held on 6–7 July 2022, in Szolnok. Online meetings for project preparation followed immediately after. Despite the ongoing war, Ukraine was eager to participate in the projects, and the RBM planning is underway.

#### **EU Strategy for the Danube Region (EUSDR)**

In 2022, Ukraine held the EUSDR presidency, with Slovenia to be followed in 2023. The 11th EUSDR Annual Forum was held in a hybrid format on 19 October 2022. As of October 2022, the Danube Youth Council was officially established and comprises 28 members, 2 from each of the 14 Danube Region countries. Numerous actions and projects on Priority Areas (PA) that are important to both the EUSDR and the work of the ICPDR were carried out in 2022, dealing with Navigation (PA 1a), energy (PA 2), water quality (PA 4), environmental risks (PA 5), and biodiversity, landscapes, and air and soil quality (PA 6).

#### Cooperation with the Black Sea Commission (BSC)

At its 32<sup>nd</sup> BSC Regular Meeting on 12–13 October 2016, the Black Sea Commission adopted the Black Sea Integrated Monitoring and Assessment Program (BSIMAP) text for 2017–2022. The BSIMAP 2017–2022 includes two annexes reflecting the reporting obligations of the Contracting Parties to the Bucharest Convention, Annex 4 on the BSIMAP reporting format and Annex 10 on the BSC/ICPDR reporting format. Annex 10 includes data from the Danube on the loads of pollution being presented each year based on the ICPDR TNMN water quality yearbook.

## Regular Budget and Financial Contribution

#### **Regular Budget for the Financial Year 2022**

Three independent auditors, appointed by the Contracting Parties, audited the consolidated financial statement, including the accounting records of the ICPDR for the financial year from 1 January – 31 December 2022.

The Audit Team certified that the Statement of Accounts was correct and that the contents, structure and details were in accordance with ICPDR rules and regulations and accounting principles, assuring the transparency of financial management.

#### **Contributions – Financial Year 2022**

	Contribution	Contribution	Actual payment
Contracting Party	in %	in EUR	in EUR
Austria	8.25%	103,652.19	103,652.19
Bosnia & Herzegovina	4.85%	60,936.68	60,936.68
Bulgaria	8.25%	103,652.19	103,652.19
Croatia	8.25%	103,652.19	103,652.19
Czech Republic	8.25%	103,652.19	103,652.19
Germany	8.25%	103,652.19	103,652.19
Hungary	8.25%	103,652.19	103,652.19
Moldova	1.72%	21,652.74	0.00
Montenegro	3.57%	44,844.50	44,844.50
Romania	8.25%	103,652.19	0.00
Serbia	8.25%	103,652.19	103,652.19
Slovakia	8.25%	103,652.19	103,652.19
Slovenia	8.25%	103,652.19	103,652.19
Ukraine	4.85%	60,936.68	0.00
European Union	2.50%	31,407.50	31,407.50
Total	100.00%	1,256,300.00	1,070,058.39

#### **Expenditure – Financial Year 2022**

Budget Line	Approved Budget in EUR	Expenditure in EUR	Balance in EUR
1. Staff	850,000.00	840,854.46	9,145.54
2. Office Running	126,400.00	119,044.52	7,355.48
3. Public Participation, Communication and Outreach	91,000.00	84,581.17	6,418.83
4. Travel & Meetings	48,000.00	32,239.39	15,760.61
5. Services	140,900.00	114,006.37	26,893.63
Total	1,256,300.00	1,190,725.91	65,574.09



## **Contracting Parties** and Heads of Delegation

#### **Austria**

Günter Liebel. Federal Ministry of Agriculture, Regions and Tourism www.bml.gv.at

#### **Bosnia and Herzegovina**

Mirza Hujić, Ministry of Foreign Trade and Economic Relations www.mvteo.gov.ba

#### Bulgaria

until Feb. 2022: Atanaska Nikolova, from Feb. 2022: Borislav Sandov, Ministry of Environment and Water www.moew.government.bg

#### Croatia

Elizabeta Kos, Ministry of Economy and Sustainable Development www.mingor.gov.hr

#### **Czech Republic**

Lukáš Záruba. Ministry of Environment www.mzp.cz

#### Germany

Heide Jekel, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety www.bmu.de

#### Hungary

Peter Kovács, Ministry of Interior www.kormany.hu/hu/belugyminiszterium

#### Moldova

Radu Cazacu, Waters of Moldova www.mediu.gov.md

#### **Montenegro**

Zorica Djuranovic, Ministry of Agriculture, Forestry and Water Management www.gov.me

#### **Republic of Serbia**

Natasa Milic, Ministry of Agriculture, Forestry and Water Management www.minpolj.gov.rs

#### Romania

until Aug. 2022: Leonard Achiriloaie, from Aug. 2022: Gheorghe Constantin Ministry of Environment, Waters and Forests www.gov.ro

#### Slovakia

Roman Havliček. Ministry of Environment www.minzp.sk

#### Slovenia

Mitja Bricelj, Ministry of the Environment and Spatial Planning www.gov.si

#### Ukraine

until Nov. 2022: Mykhailo Khoriev, from Nov. 2022: Oleksandr Krasnolutskyi Ministry of Environmental Protection and Natural Ressources www.mepr.gov.ua

#### **European Union**

until Dec. 2022: Bettina Doeser, from Dec. 2022:





