



**Report of the President of the ICPR
to the Plenary Assembly**
(Progress report,
July 2023 – December 2024)

International Commission for the Protection of the Rhine

Report No. 298

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1. A climate-resilient Rhine – adapting to climate change

Over the past one and a half years, the ICPR has made progress in updating its **climate change adaptation strategy**. According to the 'Rhine 2040' programme, the updated strategy should be available by 2025 and then reviewed every ten years.

The '**Discharge projection**' expert group (EG HCLIM) has completed its task. The overview of the projected discharge development at selected gauges of the Rhine and its tributaries by the end of the 21st century, based on the reports of the Intergovernmental Panel on Climate Change and on national models, was published in July 2024 as [ICPR Technical Report No. 297](#).

The '**Water Temperature**' expert group (EG STEMP) has completed its report on the development of water temperatures in the Rhine over the last 45 years. Publication is planned for December 2024. The report on the predicted development of water temperatures by the end of the 21st century is expected to be available in spring 2025.

The 'Ecology' working group and the 'Fish Fauna' expert group have compiled new findings on the effects of climate change on the Rhine's **flora and fauna**, including the introduction of neobiota. To also take into account anthropogenic effects, the 'Low Water' expert group is working on a projection of **water availability** and is cooperating closely with the EU Horizon project 'STARS4Water'.

All results and adaptation measures are to be discussed at a **workshop** in Arnhem (Netherlands) on 19-20 March 2025, with the participation of important user groups. It is then planned to form an editorial group to update the adaptation strategy.

2. A dynamic Rhine – sediment management

Another interdisciplinary topic is the further development of **sediment management** with a particular focus on the sediment balance. The chairs of the three working groups H, B and S had developed a roadmap for this, which was approved by the national states in May 2023. In the winter of 2023/2024, a review was carried out in the states in the Rhine basin. On 24-25 June 2024, a [workshop](#) took place in Strasbourg with the participation of international experts. The results are to be published as an ICPR technical report in December 2024. The next step is to define the requirements for a balanced sediment regime that is as specific as possible to the type of water body.

3. A healthy Rhine – ecological continuity and biodiversity

The national states have continued their exchange on the progress made in implementing measures to restore **ecological continuity in the southern Upper Rhine** in 2024. Construction work on the fish passes at the Rhinau and Marckolsheim barrages in France is progressing. France and Germany have agreed on a procedure for making the Gerstheim and Rhinau loops passable. A set of technical specifications is currently being drawn up for the lower weir at the Gerstheim loop. The modification of the two lower weirs at the Rhinau loop will be carried out as part of the French-German INTERREG project Rhinainance 2.0.

The Atlantic salmon is a flagship species that represents other long-distance migratory fish. The entire flora and fauna benefits from measures to restore ecological continuity. In recent years, the number of salmon returning to the Rhine basin has not increased to the extent expected, given the measures implemented and the stocking efforts. In April 2023, the states in the Rhine basin therefore commissioned a new study to monitor success and optimise the reintroduction strategy (**'salmon study'**). The results have been discussed in the ICPR fora since autumn 2024 and are to be published together with an expert assessment by the ICPR in the course of 2025 and taken into account in the next progress report on the Master Plan Migratory Fish. Furthermore, a **synthesis report on genetic salmon monitoring** is planned.

The 'Fish Fauna' expert group (EG FISH) has completed its **recommendations for fish protection and downstream fish migration** at hydropower plants. Publication is scheduled for December 2024.

Work on strengthening biodiversity has also progressed. The **round tables on the biotope network** have started. The first meeting took place in Koblenz on 5 March 2024. The second round table is planned for 11 February 2025. In addition, the 'Biotope Network' expert group (EG BIOTOP) is working on the further development of the methodology for comprehensive monitoring of the success of the biotope network using remote sensing data; an update of the atlas of biotopes is intended.

The 'Biological Monitoring' expert group (EG BMON) has been dealing with the preparations for the **Rhine Monitoring Programme Biology 2024/2025**. Most of the sampling in the national states has now been carried out. For the first time, water samples were also taken at various measuring points on a voluntary basis for subsequent **eDNA analyses**. The results will be incorporated into the 4th River Basin Management Plan (management cycle 2028-2033) of the International River Basin District Rhine.

4. A clean Rhine – good water quality

Micropollutants remain a key issue for the ICPR. In December 2022, the ICPR published a [monitoring and evaluation system](#) to enable regular monitoring of the 30% reduction target set at the 2020 Conference of Rhine Ministers. The 'Water Quality/Emissions' working group (AG S) has formed several subgroups and an editorial group, which are currently working on the first **interim report**, which is due at the end of 2025.

In autumn 2023, the new temporary **expert group on industry and commerce** (EG INDUSTRY) has started its work. It is concerned with measures to reduce micropollutants and their evaluation in the area of industry and commerce.

The **project on non-target screening** in the Rhine, funded by the EU through the LIFE programme, has expired in February 2024. The final report was submitted by the ICPR and accepted by the EU. In order to further develop the methodology, the national states have agreed on a follow-up project that will run from March 2024 to February 2029. In addition to the five project partners from Switzerland, Germany and the Netherlands, France and Luxembourg have joined as new project partners with new monitoring stations. The requirements for this project were defined at a [workshop](#) organised by the ICPR in September 2023.

The Expert Group on the Warning and Alarm Plan for the Rhine (EG SAPA) is preparing the work on a **new Rhine alarm model**, which is to be provided by 2027. The functions are currently being coordinated. The work is scheduled to begin in 2025. The next **international alarm exercise** is planned for 2025.

The 'Chemical Monitoring' expert group (EG SMON) has prepared the **Rhine Water Quality Report 2021-2023**; publication is scheduled for December 2024. The report now covers a period of three years (previously: two years) and has been condensed. A

schedule has been drawn up for 2025/2026 to update the Rhine Monitoring Programme Chemistry and the Rhine Substance List.

The 'Contamination of Biota' expert group (EG SCON) is supporting the statistical analysis of measurements of the **contamination of biota (fish/mussels) with pollutants** in the Rhine basin from 2015-2022. Now that all the data has been submitted by the delegations, a draft report is currently being prepared. Publication is planned for the second half of 2025.

The reactivated 'Emissions' expert group (EG SEMI) has met for the first time in November 2024 to agree on the methodology for the next **emission inventory**, which is needed for the 4th River Basin Management Plan for the International River Basin District Rhine.

On 11-12 December 2024, the ICPR and the BfG will organise an international **workshop** in Bonn on **(micro-)plastics** in the Rhine. Among other things, the focus will be on proposed measures to reduce plastic inputs.

5. A well-prepared society – dealing with flooding and low water

In recent years, the discharge in the Rhine and its tributaries was characterised by an alternation between too much and too little water. Prominent examples are the devastating flash floods in July 2021, which affected some tributaries of the Rhine, such as the Ahr and Erft, and the low water and drought year of 2022.

In October 2023, the IKSR organised an international [workshop on heavy rainfall and flash floods](#) in Bonn. A report on the results of this workshop is to be published in December 2024.

The expert group on low water (EG LW) has submitted a **report on the low water and drought event of 2022**. The plan is to publish this report in December 2024 as well.

In order to be able to regularly monitor the risk reduction target of 15% by 2040, as defined in the 'Rhine 2040' programme (the first monitoring being in 2027), some calculations will have to be carried out, including with the 'FloRiAn' (Flood Risk Analysis) tool developed by the ICPR. To prepare this work, the expert group '**Validation of water-level lowering measures**' (EG HVAL) was reactivated in autumn 2023. The ICPR has sent a data request to the national states regarding the planned completion of the measures. This [list of water-level lowering measures](#) now provides an up-to-date information and data basis. In addition, as envisaged in the 'Rhine 2040' programme, the group is discussing the procedure for identifying possible **new flood retention areas** that go beyond the measures already compiled in the ICPR.

The 'Flood and Low Water' working group (AG H) has started to prepare a **report on the update of areas with potential significant flood risk** (3rd cycle of the EU Floods Directive). It is to be published by 22 December 2024 to support EU member states in their national reporting to the EU Commission.

Furthermore, the WG H has continued its exchange on good practice examples of **non-structural flood risk management** (keeping areas free of development, structural flood protection of buildings and risk communication) and on behavioural precautions.

6. A future-proof commission – public relations and digitisation

On 9 April 2024, the **annual meeting between the NGOs and the President** took place. Topics discussed included measures to adapt to climate change, to strengthen biodiversity and to improve water quality. The NGOs are observing with interest the progress made in restoring ecological continuity in the southern Upper Rhine.

Since the last plenary assembly in Vienna in June 2023, the ICPR has issued two [press releases](#). The occasions were the 2023 plenary assembly with the adoption of the

2024/2025 Rhine Monitoring Programme Biology and the publication of the ICPR report on the development of the discharges of the Rhine under the influence of climate change by the end of the century. In the 2023/2024 meeting year, there were fewer press enquiries than during the drought in the summer of 2022.

Within the reference period of the activity report, 19 **visiting groups** were counted in the ICPR secretariat – 8 from Europe, 7 from Asia/the Middle East, 3 from Africa and one from South America.

The ICPR – represented by the president, the executive secretary and the scientific staff of the secretariat, as well as by group chairs in some cases – participated in **29 events** with presentations – 10 of which were online and 19 on-site, including:

- 75th anniversary of the Federal Institute of Hydrology in Koblenz (Germany),
- Colloquium 'Ecological flood protection and renaturation of watercourses' in Walferdange (Luxembourg),
- 225th anniversary of Rijkswaterstaat in Delft (Netherlands),
- Workshop on Microplastics of the International Scheldt Commission and the International Meuse Commission in Maastricht (Netherlands),
- UNECE Global Workshop on Droughts in Transboundary Basins in Geneva (Switzerland),
- European Water Summit in Lanaken (Belgium),
- International Cooperation Forum in Basel (Switzerland),
- Free Flow Conference in Groningen (Netherlands),
- European Green Week in Brussels (Belgium),
- 12. General Assembly of the International Network of Basin Organisations in Bordeaux (France).

For several years, the ICPR has been in contact with the Administrative Commission for the Uruguay River (CARU) and the Committee for the Development of the Uruguay River Basin (CCRU). In the summer of 2024, the president and the executive secretary visited CARU and CCRU. A [news item](#) was published on the ICPR website.

Alongside 'traditional' public relations work and the website www.iksr.org/en, the ICPR has been present on **social media** since the end of 2020. Due to the controversial development of the platform X (formerly Twitter), the ICPR ended its presence there in December 2023. It continues to operate a page on LinkedIn ([International Commission for the Protection of the Rhine](#)). The second 'ICPRMemberWeek' took place in autumn 2024. Following the presentation of the atlas of biotopes by the secretariat in September, the national delegations and the EU have presented projects to restore wetlands from October to November that contribute to achieving the biodiversity targets of 'Rhine 2040'.

As part of a collaboration between the ICPR and the **Historical Archives of the European Union** (HAEI) in Florence, **historical files** from the years 1948-1993 have been made publicly available. A [news item with a link to the HAEI website](#) is available on the ICPR website.

Since September 2023, the ICPR has been holding multilingual (i.e. with simultaneous interpretation) meetings in a **hybrid format**. In addition to on-site meetings and pure video conferencing, these form a third pillar for the work of the ICPR. One year after their introduction, the results were positive. Hybrid conferences make the ICPR more sustainable and flexible. They enable delegates and observers with long journeys to participate in its activities more easily.

Annex 1: ICPR technical reports

The following list contains [technical reports](#) that were published in the 2023/2024 session year or are expected to be published after the 2024 plenary assembly.

ICPR technical report No. 294:	International Warning and Alarm Plan Rhine (IWAP) – Messages 2023
ICPR technical report No. 295:	Update of the web IWAP system
ICPR technical report No. 296:	Rhine Substances List 2024-2026
ICPR technical report No. 297:	Climate change induced discharge scenarios for the Rhine basin
<i>ICPR technical report No. 298:</i>	<i>Report of the President (Activity Report) 2023/2024 (expected in December 2024)</i>
<i>ICPR technical report No. 299:</i>	<i>Report on the low water and drought event of 2022 (expected in December 2024)</i>
<i>ICPR technical report No. 300:</i>	<i>Evaluation and development of the Rhine water quality 2021-2023 (expected in December 2024)</i>
<i>ICPR technical report No. 301:</i>	<i>Development of Rhine water temperatures from 1978 to 2023 (expected in December 2024)</i>
<i>ICPR technical report No. 303:</i>	<i>Recommendations for fish protection and downstream fish migration at hydropower plants in the Rhine catchment area (expected in December 2024)</i>
<i>ICPR technical report No. 306:</i>	<i>Workshop flash floods on 4 October 2023 in Bonn: report of the results (expected in December 2024)</i>
<i>ICPR technical report No. 307:</i>	<i>Workshop sediment management on 24-25 June 2024 in Strasbourg: Report of the results (expected in December 2024)</i>
Report Floods Directive	<i>Report on the update of the detection of areas with potential significant flood risk in the International River Basin District Rhine (Third cycle of the Floods Directive) (expected in December 2024)</i>

Annex 2: ICPR workshops

The following list includes [events](#) that the ICPR has organised in 2023/2024.

18 September 2023 in Koblenz	Workshop 'A new harmonized approach for non-target screening – exploring its potential to track contaminants in environmental monitoring'
4 October 2023 in Bonn	Workshop 'Heavy rain and flash floods: New risks and possible actions in the Rhine catchment'
24-25 June 2024 in Strasbourg	Workshop 'Sediment balance and sediment management'
<i>11-12 December 2024 in Bonn</i>	<i>Workshop 'Microplastics in the River Rhine – Methods, Occurrence and Effects'</i> <i>Workshop '(Micro-)plastics in the Rhine – emission sources and possible measures'</i>