

# Report of the President of the ICPR to the Plenary Assembly

(Progress report, December 2024 - July 2025)

International Commission for the Protection of the Rhine

Report No. 308

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## **Imprint**

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#### **Overview:**

- 1. A climate-resilient Rhine adaptation to climate change
- 2. A dynamic Rhine sediment management
- 3. A living Rhine ecological continuity and biodiversity
- 4. A clean Rhine good water quality
- 5. A well-prepared society dealing with floods and low water
- 6. A future-proof commission public relations and digitisation

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

The ICPR is in the final states of updating its **climate change adaptation strategy**. A **workshop** with the participation of key user groups took place in Arnhem (Netherlands) on 19 and 20 March 2025. The presentations were published on the ICPR <u>website</u>.

The ICPR expert group on water temperatures (EG STEMP) has completed its report on the development of **water temperatures** in the Rhine over the last 45 years. The report was published in December 2024 as ICPR <u>Technical Report No. 301</u>. Reports on the predicted development of water temperatures until the end of the 21<sup>st</sup> century and the impacts of climate change on aquatic ecology are now also available and are expected to be published in July 2025.

These reports, as well as other findings from various ICPR expert committees (including those on runoff and water availability), will be taken into account in the revision of the strategy, which is expected to be completed by December 2025.

Preparations for the preparation of the 4<sup>th</sup> **River Basin Management Plan** for the International Rhine River Basin District have begun. A steering and drafting group (SG-PLAN) appointed by the Strategy Group met for the first time on 10 April 2025. Among other things, it was decided to define climate change as another key management issue.

# 2. A dynamic Rhine - sediment management

Another interdisciplinary topic with great relevance for ecology, water quality and shipping, among others, is **sediment management**.

Following the workshop held on 24/25 June 2024 in Strasbourg (see ICPR <u>Technical Report No. 307</u>), the Strategy Group, on the recommendation of the working group chairs, asked the three working groups "Floods and Low Water" (WG H), "Ecology" (WG B) and "Water Quality/Emissions" (WG S) to formulate **requirements for an improved sediment balance** by the end of 2025. In cooperation with the International Commission for the Hydrology of the Rhine Basin (CHR), the **measurement methods** in quantitative sediment management are **to be harmonised**.

In parallel, the WG S will examine a revision of the substance catalogue for **qualitative sediment management** and closely monitor the status of the implementation of measures in the states in the Rhine catchment area within the framework of the 2009 Sediment Management Plan.

## 3. A living Rhine – ecological continuity and biodiversity

The states continued their exchange on progress in implementing measures to restore **ecological continuity in the southern Upper Rhine** by 2025. Construction works on the fish passes at the Rhinau and Marckolsheim dams in France and France's considerations on restoring river continuity in Vogelgrun are progressing. France and Germany have jointly initiated the work to make the Gerstheim and Rhinau loops passable.

The Atlantic salmon is a flagship species that represents other long-distance migratory fish. All flora and fauna benefit from measures to restore ecological continuity. In recent

years, the number of salmon returning to the Rhine catchment has not increased as expected, given the measures implemented and the stocking effort. The states in the Rhine catchment area therefore commissioned a new study in April 2023 to monitor the success and optimise the reintroduction strategy ("**salmon study**"). The results are currently being discussed in the "Ecology" Working Group and the "Fish Fauna" Expert Group. The study is scheduled to be published in 2025, along with a policy summary.

The EG FISH has prepared a report on the **progress made in implementing the Master Plan Migratory Fish**, which is expected to be published in July 2025. In addition, a cross-national **synthesis on genetic salmon monitoring** is currently being carried out. **The recommendations for fish protection and downstream fish migration** at hydropower plants were published in December 2024 as ICPR <u>Technical</u>

Report No. 303.

The second **round table on the biotope network** took place on 11 February 2025. In parallel, preparations are underway to **update the biotope atlas** by 2027.

A large proportion of the samples for the **Rhine Monitoring Program Biology 2024/2025** were taken during 2024. Some additional sampling will take place in 2025. For the first time, pilot water samples were taken at some monitoring stations for supplementary eDNA analyses.

# 4. A clean Rhine - good water quality

**Micropollutants** remain a key focus of the ICPR. To ensure regular review of the 30% reduction target adopted at the Rhine Ministers' Conference in 2020, the ICPR published a monitoring and assessment system in December 2022. The **first interim report** 2016-2023, prepared by several subgroups of the AG S and an editorial group, is available in draft form and is to be discussed in the ICPR bodies in autumn 2025 and published in December 2025.

The temporary **expert group "Industry and Commerce"** (EG INDUSTRY) has set itself the goal of developing a "situation analysis on the input of micropollutants from industry and commerce into the waters in the Rhine catchment area" by the end of 2026.

requests Working Group S to initiate a discussion on **PFAs** in order to exchange knowledge (e.g. measurement methods, standards, emission sources) and experience in the countries in the Rhine catchment area, and thus contribute to the necessary discussions at EU level and provide advice.

The Expert Group "Analytics" (EG SANA) has focused its work more on non-target screening. In the new project (duration 2024-2029), the international database was expanded to include additional substances, new measuring points were integrated and a new project server was acquired. The methodology is planned to be expanded to include an additional procedure in 2026. Collaboration with the Austrian Federal Environment Agency, which also uses the visualisation tool developed in the previous project, has been intensified.

The functions for the **new Rhine alarm model** have been defined. A financing concept is available. The delegations have asked the Secretariat to submit an application for EU LIFE funding by September 2025. An **international test alarm** took place in June 2025 and will be evaluated by autumn 2025.

The substance list for the **Rhine Chemical Monitoring Program** 2027-2032 and the **Rhine Substance List** 2027-2029, developed by the Chemical Monitoring Expert Group (EG SMON), have been approved, allowing the delegations to complete the contract for analytical work in a timely manner. The corresponding reports will follow in 2026.

The Expert Group on **Biota Contamination** (EG SCON) supervises the statistical evaluation of measurements on the **contamination of biota (fish/mussels) with pollutants** in the Rhine catchment area from 2015 to 2022. The revised draft report will

be discussed in July 2025 and is scheduled to be published by the end of 2025. The expert group will then address methodological issues related to the standardization of future evaluation reports.

The Expert Group on Emissions (EG SEMI), reactivated in 2024, met again in February 2025 to coordinate preparations for the next **emissions inventory**, which is required for the 4<sup>th</sup> River Basin Management Plan of the International Rhine River Basin District. First data queries have been initiated.

On 11 and 12 December 2024, the ICPR organised an international **workshop on** (**micro)plastics** in the Rhine in Bonn together with the Federal Institute for Hydrology (BfG). The focus was on proposed measures. The presentations were published on the ICPR website. A proposal for a monitoring program is currently being discussed. Initial tests to assess the robustness of the methodology will run until autumn 2025.

## 5. A well-prepared society - dealing with high and low water

In recent years, discharges in the Rhine and its tributaries have been characterised by a fluctuation of extremes. Prominent examples include the flood disaster in July 2021, which affected several tributaries of the Rhine, such as the Ahr and Erft, and the lowwater and drought year of 2022. In December 2024, the ICPR published reports on the **Heavy Rainfall and Flash Floods Workshop** and on the **2022 Low Water and Drought Event** (see ICPR <u>Technical Report No. 306</u> and ICPR <u>Technical Report No. 299</u>).

The work of the Expert Group Low Water (EG LW) on projecting **water availability** and **water demand** (based on an internal definition) is making progress – also thanks to the collaboration with the CHR's "**Socio-Economic Senarios - SES**" and "**STARS4Water**" (EU-funded) projects. Here, scenarios are being worked on and fed into a model. Over the next 12 months, the EG LW plans to update an inventory of preventive and operational measures for low water and hydrological droughts, as well as compile approaches and systems for assessing low water.

The expert groups "Validation of Water Level Reducing Measures" (EG HVAL) and "Flood Risk Analysis" (EG HIRI) are in the process of adapting their instruments – including the "FloRiAn" (Flood Risk Analysis) instrument – with external support so that they can review the risk reduction target of 15% for 2040 defined in the "Rhine 2040" program for the first time in 2027 and then every six years.

In December 2024, the Working Group on Flood Risk published its report on **areas with potentially significant flood risk** in the international Rhine River Basin District on the ICPR website. A new risk area was added near Colmar on the Ill River. In addition, textual information on the risk of heavy rainfall events was included in the report.

Meanwhile, work has begun on updating the national **flood hazard and flood risk maps**. A report is scheduled to be published on the ICPR website by the end of 2025. The **Rhine Atlas** is planned to be updated in early 2026.

Furthermore, the Working Group H is currently working on an **inventory of potential new flood retention areas**. **Synthesis reports on appropriate behavior** in response to flood warnings and on **non-technical measures** taken by states are currently being prepared as input for the 3<sup>rd</sup> International Rhine Flood Risk Management Plan and the Rhine 2040 assessment.

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

The annual **information exchange between the NGOs and the President** took place on 13 May 2025. Topics discussed included hydromorphological measures, invasive species, micropollutants, flood retention areas, and sponge landscapes.

The ICPR issued a **press release** on the occasion of the plenary session in Luxembourg in December 2024. In the first half of 2025, there were fewer media inquiries than the average of previous years.

During the reference period of the activity report, 3 **visitor groups** were counted at the ICPR Secretariat.

The ICPR – represented by the President, the Executive Secretary and the scientific staff of the Secretariat, as well as in some cases by group chairs – participated with presentations at **12 events** – 7 of them online and 5 in person – including:

- International Conference on Environment and Society, focus on international cooperation on the Nile (online),
- Exchange with the Mexican Ministry of the Environment, which aims to clean and renaturalise the country's dirtiest rivers as part of a large-scale programme, mediated by the French Embassy (online),
- Exchange with students of architecture/landscape architecture at the University of Lausanne who are carrying out a project on the Rhine (online),
- EU CIS Working Group "Water Scarcity and Droughts" in Ispra (Italy),
- INBO webinar on "Remote Sensing" (online),
- Climate Change Workshop by the International Commission for the Protection of the Oder River in Wrocław (Poland),
- EU CIS Working Group "Floods" (online),
- EURO-INBO-Conference in Parma (Italy),
- Exchange on biological monitoring of the UN World Water Quality Alliance (online).

In addition to traditional press work and the website www.iksr.org/en, the ICPR has been present on **social media** since the end of 2020. It operates a page on **LinkedIn** (International Commission for the Protection of the Rhine) with more than 1,300 followers.

In autumn 2024, the BfG produced a **podcast** about the ICPR with the President and the Executive Secretary, which has since been published on the BfG <u>website</u>.

On 11 July 2025, the ICPR will turn 75. The **anniversary event "75 Years of the ICPR"**, with over 100 guests from the states in the Rhine basin and from the EU Commission, will take place on 3 July 2025, at the Rheinterrasse in Düsseldorf. Panel discussions will focus on past successes and the challenges of the present and future. An **anniversary logo** has been designed for this occasion.

### **Appendix 1: ICPR technical reports**

The following list contains <u>technical reports</u> that were published in the 2024/2025 session or are expected to be published immediately after the 2025 plenary session (*in italics*).

No.	Title	Languages
288	Report of the President of the ICPR to the PLEN-CC-24 (Activity Report, July 2023 - December 2024)	DE, FR, NL, EN
299	Report on the 2022 Low Water/Drought Event	DE, FR, NL
301	Development of Rhine water temperatures from 1978 to 2023	DE, FR, NL
303	Recommendations for fish protection and fish migration at hydropower plants in the Rhine catchment area	DE, FR, NL, EN
306	Heavy Rain Workshop on 4 October 2023 in Bonn: Results Report	DE, FR, NL, EN
307	Sediment Management Workshop on 24/25 June 2024 in Strasbourg: Results Report	DE, FR, NL
	Report on the update of the determination of potentially significant flood risk areas in the international river basin district Rhine (Third Cycle of the HWRM-RL), published on the ICPR floods directive site	DE, FR, NL, EN
302	Simulation of the effects of climate change scenarios on future Rhine water temperature development – update IPCC AR5	EN
305	International Warning and Alarm Plan Rhine (IWAP) – Messages 2024	DE, FR, NL
308	Report of the President of the ICPR to PLEN-CC-25 (Activity Report, December 2024 - July 2025)	DE, FR, NL
309	Current knowledge of possible impacts of climate change on river ecosystems and biodiversity in the Rhine catchment area	DE, FR, NL
310	Progress in the implementation of the Master Plan Migratory Fish Rhine in the years 2018-2023	DE, FR, NL

#### **Appendix 2: ICPR Workshops**

The following list includes events organized by the ICPR in the session year 2024/2025.

11./12.12.2024 in Bonn	Workshop "Microplastics in the River Rhine – Methods, Occurrence, and Effects"  Workshop "(Micro)Plastics in the Rhine – Emission Ranges and Possible Measures"
19./20.03.2025 in Arnhem	Workshop "Climate Change and its Impacts in the Rhine Basin"