Internationale Kommission zum Schutz des Rheins
Commission Internationale pour la Protection du Rhin
Internationale Commissie ter Bescherming van de Rijn

15th Conference of Rhine Ministers

Communiqué of Ministers

28th October 2013, Basel

Prevention and Adaptation

Future challenges for sustainable water management in the Rhine catchment

The Ministers in charge of Rhine protection and the Representative of the European Union met in Basel on 28 October 2013 to draw a balance of the co-operation in protecting the Rhine, its tributaries and the entire catchment so far and to determine the guidelines for future cooperation.

Participants in the Conference:

For Germany, Mr Helge WENDENBURG, Head of Department, representing Mr Peter ALTMAIER, Federal Minister of Environment, Nature Protection and Nuclear Safety;

For France, Mr Laurent ROY, Director for Water and Biodiversity, representing Mr. Philippe MARTIN, Minister for Ecology, Sustainable Development and Energy;

For Liechtenstein, Mrs Marlies AMANN-MARXER, Minister for Infrastructure and Environment and Sport;

For Luxemburg, Mr Jean-Paul LICKES, Deputy Water Director, representing Mr Jean-Marie HALSDORF, Minister of the Interior and for the Macroregion;

For the Netherlands, Mrs Elaine ALWAYN, Director, representing Mrs Melanie SCHULTZ VAN HAEGEN-MAAS GEESTERANUS, Minister for Infrastructure and Environment;

For Austria, Mr Karl SCHWAIGER, acting Water Director, representing Mr Niki BERLAKOVICH, Minister of Agriculture and Forestry, Environment and Water Management;

For Switzerland, Mrs Doris LEUTHARD, Swiss Federal Councillor, Director of the Federal Department for Environment, Traffic, Energy and Communication;

For Wallonia, Mr Didier CADELLI, Councillor, representing Mr Philippe HENRY, Minister of Environment, Spatial Planning and Mobility;

For the European Union, Mr Peter GAMMELTOFT, Director, representing Mr Janez POTOCNIK, Commissioner for Environment;

For the International Commission for the Protection of the Rhine, Mr André WEIDENHAUPT, President of the Commission.

As Observers

Representatives of intergovernmental organisations and of non-governmental organisations

Preamble

1. The United Nations have declared 2013 as International Year of Water Cooperation. From that point of view, the cooperation in the Rhine catchment is an outstanding example, also for the implementation of the UNECE-Convention on the Protection and Use of Transboundary Water Courses and international Lakes, the so-called Helsinki Convention. Thus, the Rhine triggers new impulses for other international river districts in Europe and elsewhere in the world.

2. The Contracting Parties in the International Commission for the Protection of the Rhine (ICPR) look back upon more than 60 years of constantly developing and trusting cooperation in water protection. In addition, for more than 10 years, they have been successfully cooperating with the other states in the catchment within the Coordination Committee Rhine with a view to implementing EU Directives relating to water issues. In September 2013, success achieved so far was awarded the first European Riverprize.

3. The programme "Rhine 2020" adopted in 2001 materializes the targets of cooperation in the field of sustainable Rhine development. The first Management Plan according to the WFD[1] for the entire international Rhine catchment (2009) is one of the products developed on the basis of the guidelines of the joint European strategy on implementing the WFD. The measures planned for the restoration of river continuity and of self-sustaining stocks of migratory fish in the exemplary Master Plan Migratory Fish Rhine have become part of the Management Plan.

4. The main concern in the 1970s was the improvement of water quality. In particular due to the Sandoz accident in the 1980s, attention increasingly focussed on the ecological quality. The Leitmotif is the return of the salmon which vanished in the mid-50s. The flood events in the 1990s led to increased integrated water management.

5. Considering the catastrophic flood events in the catchments of the Danube and Elbe rivers in May/June 2013 and with a view to drafting the 1st Flood Risk Management Plan according to the Floods Directive[2] it has again become clear, that the efforts in the states aimed at reducing flood risks and potential flood damages must not decrease.

6. Considering new challenges, the fruitful cooperation will have to prove itself. In future, the effects of climate change on water bodies and their uses will have to be taken into account in management issues.

7. For the further implementation of EU water protection legislation including the Rhine catchment, the conclusions of the Council of November 2012 on assessments and proposals of the European Commission to Safeguard Europe's Water resources (Blueprint) will also be decisive.

8. With its new landmark decisions, today's conference of Ministers continues the work of the 14th Conference of Rhine Ministers staged in 2007 in Bonn. This is particularly true of work in the field of substance pollutions including micro-pollutants, river continuity, flood risk management and the effects of climate change on water management and water temperatures. The ICPR work of the last years presents important results for these issues.

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1 EU Water Framework Directive 2000/60/EC

2 EU Floods Directive 2007/60/EC

Chemical and ecological quality

Reducing the hazardous substance pollution

9. **The Ministers and the Representative of the European Union welcome** that:

a. due to the reduction of pollutants and nutrients from industry and municipalities, the water quality of the Rhine and of many of its tributaries has considerably improved in spite of unchanged intensive uses of the Rhine catchment;

b. the number of reports within the Warning and Alarm Plan Rhine has distinctly fallen since 2008, which is also due to increased controls and increasing prevention in industrial plants and navigation.

c. the activities of the contracting parties of the CDNI Convention[3], of inland navigation, of the river police and of the European Fuel Oxygenates Association (EFOA[4]) have contributed to reduce the pollution by illegal MTBE-ETBE[5]-discharges from navigation;

d. in the meantime, 8 of the 22 risk areas identified in the Sediment Management Plan Rhine (2009) have been cleaned up. The most important cleaning up was done in the Ketelmeer-West (Netherlands). Within the Permanent Commission for the Upper Rhine, France and Germany are carrying out further investigations into the hexachlorobenzene (HCB) related problems.

10. **They state** that:

a. the contents of ubiquitous substances such as dioxins, furans and PCB resembling dioxins in some fish, in particular in eel in the Rhine and its tributaries almost everywhere exceed the total highest value permissible under foodstuffs legislation and that further restoration measures will not be able to reduce these values. Therefore, some states have issued restrictions for fishery, fish marketing, ceding fish free of charge and fish consumption;

b. micro-pollutants, e.g. residues of pharmaceuticals, radio contrast agents or personal care products are detected in the waters of the Rhine and that measurable concentrations are detected in the main stream and its tributaries whereas,

(i) in the lower course of the Rhine and in waters of the catchment with a high share of wastewater from wastewater treatment plants comparatively high micro-pollutant concentrations are detected;

(ii) for some micro-pollutants the maximum concentrations detected are in excess of the proposed environmental quality standards or are of the order of magnitude of ecotoxicologically relevant values;

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[3] Convention on the Collection, Deposit and Reception of Waste produced during Navigation on the Rhine and Inland Waterways (CDNI) of 9th September 1996 (http://www.cdni-iwt.org); contracting parties: Switzerland, France, Luxemburg, Belgium, Germany, Netherlands

[4] EFOA=European Fuel Oxygenates Association

[5] MTBE = Methyl tert-butyl ether, ETBE = Ethyl tert-butyl ether: used as fuel additives

(iii) for many of the micro-pollutants considered, households, industry and trade are the most important emission sources and municipal wastewater is the most important input pathway - in spite of the wastewater treatment in wastewater treatment plants;

(iv) in some states in the Rhine catchment, technical solutions aimed at implementing concrete measures towards reducing micro-pollutant inputs from urban wastewater are already under development. This particularly applies to (pilot) plants in Germany, Luxemburg, the Netherlands and Switzerland.

11. **They take note of** the following:

a. The target set in the Management Plan 2009 according to the WFD for the international Rhine river basin to further reduce the nitrogen load by 15 to 20 % in 2015 will presumably be achieved by the states in the Rhine catchment and that this reduction will at the same time considerably contribute to implementing the objectives of the EU Marine Strategy Directive[6];

b. In the Rhine catchment, diffuse substance inputs continue to pose a problem. In particular, nitrogen, regionally also phosphorous are concerned, as well as plant protection agents such as isoproturon, PCB, polycyclic aromatic hydrocarbons (PAH) and the heavy metals zinc and copper;

c. In many waters of the Rhine catchment the good chemical status according to WFD will not be achieved. In spite of vast restoration measures, the concentrations of some ubiquitous substances[7] are still too high.

12. **They remind of the fact** that

a. the programmes of measures under the first WFD management cycle (2009-2015) are targeted towards a further reduction of substances discharged into waters;

b. further measures exist, such as optimizing the use of fertilizers and plant protection agents as well as enhancing ecological farming/organic farming;

c. substances in the Rhine water may not have any detrimental effects on the biocoenosis of flora, fauna and micro-organisms, neither on their own, nor in interaction and that water quality must be such that drinking water production is not hampered.

13. **They confirm their determination** to increase their attention for measures reducing substance inputs and their interaction with other policy fields within the 2nd Management Plan (2016-2021) according to WFD and the further implementation of the programme "Rhine 2020" if not all reduction objectives are met by 2015.

14. **They support** the objectives of the CDNI contracting parties to avoid the generation of waste in navigation and

a. if still required, to see to a rapid development of the network of collection points for waste from navigation and to its publication on the web;

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6 EU Marine Strategy Directive 2008/56/EC

7 among others PAH, tributyl tin compounds (TBT)

b. to provide an improved exchange of information (e.g. on regulations and legal instruments, shiploads, ships' movements), e.g. in order to improve data registration, to prevent, reduce and eventually sanction illegal discharges.

15. **They confirm** the measures proposed within the Sediment Management Plan Rhine and **are determined** to implement these proposals for all risk areas.

16. **They require the ICPR** to achieve comparable investigation results by applying comparable methods when determining the contamination of fish/biota for the entire Rhine catchment. This makes it possible to largely cover requirements of the legislation on foodstuff, health and of the water legislation at the same time. **They thus support** the efforts of the states towards drafting as uniform recommendations on consumption as possible for the population.

17. **They agree** that, on a national, as well as on an international scale, measures aimed at avoiding and reducing micro-pollutant inputs must be taken. In particular, these measures may be:

a. Measures at the source, e.g. restricting the use of substances;

b. Requirements for production processes and industrial wastewater treatment, in particular application of the best available technique;

c. Enhancing the development and implementation of innovating procedures to reduce micro-pollutant emissions;

d. Applying further procedures to eliminate micro-pollutants from urban wastewater treatment plants;

e. Reviewing and updating existing surveillance concepts taking into account breakdown products;

f. Information of the public on the use, avoidance and disposal.

18. As many measures go beyond the responsibilities of the ICPR and the level of the Rhine catchment, the **Ministers and the representative of the European Union** undertake to take initiatives and to develop activities targeted at avoiding and reducing micro-pollutant inputs. In particular:

a. A consequent chain of measures should be developed from the source to the disposal for products containing substances relevant for the water environment, e.g. by

- a further development of the best available technology for production or processing;
- increasingly taking into account environmental aspects when licensing substances and maintaining the marketability of substances, in particular by improving or developing methods proving the impact of the substances on the ecosystem;
- requirements concerning the marketing and use, e.g. restrictions and bans;
- compulsory labelling;

b. Methods for assessing the effects of micro-pollutions on the aquatic fauna and flora should be harmonized;

c. Existing and future substance-related regulations should be harmonized with regulations concerning the protection of water resources and the aquatic environment.

19. **They ask the ICPR**

a. to achieve the strategy on micro-pollutants from diffuse sources based on the example of pesticides;

b. to further accompany work on a national and a European scale and to continue the exchange of knowledge, experience and information on the innovative procedures/techniques applied and on decisive emission pathways;

c. to take stock of the development after 3 years. Based on this stock-taking it will be up to the ICPR to decide, which common measures are to be taken in order to reduce the micro-pollutant inputs via the decisive input pathways (in particular urban wastewater).

20. **They welcome** that the NGOs co-operating with the ICPR and other actors active in this field support the distribution of information on the relevance of substances for the environment and drinking water and on recommended changes in the use and disposal of substances.

Improvement of the ecological situation

21. **The Ministers and the Representative of the European Union welcome** that:

a. today more than 60 fish species and more than 500 invertebrate species such as insect larvae, mussels, snails, etc. occur in the Rhine;

b. many species which were said to be extinct or which numbers were said to be strongly reduced in the Rhine have returned. However, some species which have immigrated to the Rhine catchment spread at the expense of the indigenous fauna;

c. that, during the past years, much has been achieved within the implementation of the programme Rhine 2020 and the Water Framework Directive: River continuity has been restored at some 480 transverse structures in the waters of the Rhine catchment, 122 km² of floodplains have been reactivated and 80 oxbow lakes and backwaters have been reconnected to the dynamics of the Rhine. This ecological network and the recovery of habitats benefit to migratory fish, but also to local fish species and invertebrates;

d. the ICPR Master Plan Migratory Fish points out a coherent approach in an international river catchment and that many of its measures have been integrated into the WFD Management Plan 2009. Comparable measures aimed at enhancing the Lake Constance lake trout are planned in the Alp Rhine/Lake Constance area;

e. salmon stocking can step by step be reduced in parts of the River Sieg system in the lower reaches of the Rhine, even though such stocking measures on the long run remain absolutely essential in the upper reaches of the Rhine, in order to increase the number of returnees and to enhance the carefully starting natural reproduction.

22. **They confirm** that the restoration of the migration routes represents an important management aspect within the implementation of the WFD and that of the

Swiss law on water protection and that migratory fish also play a role in the implementation of the Marine Strategy Directive. For their life cycle, certain migratory fish require functioning connections between the river systems and the marine environment.

23. **They state** that, for juvenile salmon or adult eel, the downstream migration in the turbine areas is critical because of the great danger of injuries, particularly in cases of successive hydro power plants.

24. **They ask** the ICPR to intensively work on the joint determination of innovative techniques of downstream migration at transverse structures; their development is required in order to reduce the losses of salmon or eel in the turbines during their downstream migration.

25. **They state** that due to ongoing measures, river continuity upstream as far as Basel is becoming more and more realistic and plannable. This will open the access to the existing spawning grounds of migratory fish in the rivers Birs, Wiese and Ergolz by 2020.

26. **They confirm** that, in order to achieve the objectives of the programme "Rhine 2020" and of the Master Plan Migratory Fish Rhine in the main stream of the Rhine

a. the Haringvliet sluices on the North Sea coast will partly be opened in 2018;

b. the fish passage at the Strasbourg impoundment will start operating in 2015; the same year, construction work on the fish passage at the Gerstheim fish passage will start in order to reconnect the Elz-Dreisam area with the Rhine;

c. the experience and assessment of the effectiveness of the fish passages in the river system built so far will contribute to improve the technical solutions still to construct;

d. the transfer of fish into the old bed of the Rhine in the region around the impoundment Vogelgrün/Breisach is a technical challenge. With respect to the upstream migration through the Upper Rhine until Basel, **they ask** the ICPR to facilitate an exchange of experience of experts in 2014, taking into account the results of studies existing so far in order to contribute to finding a technically optimal solution;

e. an efficient fish pass system at the impoundments Rhinau, Marckolsheim and Vogelgrün on the Upper Rhine must be planned and implemented, so that, by 2020, fish may reach the old bed of the Rhine and Basel.

27. **They confirm** that

a. by constructing fish passages at the impoundments, the continuity of the R. Moselle as far as Schengen (tri-border region FR-LU-DE) must successively be restored;

b. fish passability must be restored at all existing transverse structures in all programme waters of the Master Plan Migratory Fish Rhine;

c. as a matter of principle, no new migration obstacles may be constructed in the programme waters and, as far as possible, no obstacles to migration may be constructed in the remaining freely flowing stretches in order to conserve these stretches as spawning grounds and juvenile habitats;

d. the measures of the Master Plan Migratory Fish Rhine should be extended to several tributaries to the High Rhine and the Aare which, according to an inventory of 2012, present more than 200 ha of further habitats for juvenile salmon.

28. **They aim at** continuing their efforts in order to achieve the objective of 800 km of ecologically enhanced river banks and to distinctly enhance species diversity on the banks of the Rhine. **They are determined** to intensify the implementation of measures aimed at increasing the diversity of aquatic and semi-aquatic habitats, among others by reactivating the bedload balance or by detritus supplement in the Rhine and by implementing the habitat patch connectivity along the Rhine.

29. **They confirm** that when implementing the WFD, the objectives of the NATURA 2000 areas depending on water must be further taken into account. The linking of activities of water and nature protection must be improved in order to benefit from mutual synergy effects. The same is true of the implementation of the Floods Directive in connection with the WFD, e.g. when creating natural flood areas. The success control of the habitat patch connectivity will show success and deficits.

Flood risk management

30. **The Ministers and the Representative of the European Union state** that, due to the political objectives of the Action Plan on Floods:

a. since the last big floods of the Rhine in 1995, the states in the Rhine catchment have invested more than 10 billion € into flood prevention, flood protection and raising awareness for floods in order to reduce flood risks and to thus improve the protection of man and goods;

b. since 2010, downstream of Basel (on the Upper and Lower Rhine) retention areas are available for up to 229 million m³ of water. Furthermore, in the Rhine delta, measures have been implemented to enlarge the river bed (Room for the River); this contributes to reduce flood peaks and flood risks;

c. in addition, renaturing measures along tributaries and smaller waters in the catchment have been carried through and, in order to improve the protection of man and goods, the security of dikes and local flood protection have been improved along certain river sections;

d. today, the population potentially concerned has a possibility to rapidly find information on flood risks thanks to modern means of communication (internet/sms/etc.). The authorities have prolonged prediction periods and thus, in case of floods, the population has more time to move goods and themselves to a flood-safe place.

31. **They state** that the implementation of measures takes more time than originally planned. **They underline** the importance of realizing all retention areas planned by 2020 on time and of securing room for measures to be implemented after 2020.

32. **They state** that with the measures planned under the Action Plan on Floods, the reduction of flood peaks hitherto strived for can only be achieved locally and for a small number of flood events. However, **they confirm** the utility of the concrete measures already planned within the Action Plan on Floods which will be completely or partly

integrated into the following Flood Risk Management Plans under the Floods directive. Taking into consideration the expected climate change **they underline** the necessity to plan further flood retention measures beyond those already planned.

33. **They welcome** the steps taken by the ICPR within the Floods Directive to draft a joint, comprehensive Flood Risk Management Plan. This plan will outline the measures of the different states in the fields of avoidance, protection and prevention, taking into account the targets and measures of the Action Plan on Floods.

34. **They state** that, due to the effects of climate change and the expected increase of the number of flood events and also considering the possibility of a greater probability of extreme events, in particular supra-regional flood risk management measures, such as keeping flood-prone areas free from further uses or creating more flood retention areas/more room for the river will become increasingly important.

35. **They welcome** the development of an instrument aimed at giving evidence of the damage reduction in connection with flood risks, which is able to detect the effectiveness of different measures in various fields of action (keeping surfaces out of use, spatial planning, and protection of objects) which has jointly begun within the ICPR. With this instrument, it will be possible to determine the priority of measures within flood risk management planning.

36. They underline the necessity of comprehensive and integral flood risk management including all options for action. In this respect it is necessary to extend the prevention of great floods and extreme floods to all fields of action at all levels of competence when implementing the Floods Directive. That includes the drafting and extension of disaster management plans and of urban or regional or (inter-)national crisis management plans (among others civil protection).

37. **They confirm** that the activities must be coordinated and interconnected in order to avoid that a measure planned in one area leads to a transboundary up- or downstream increase of the flood risk.

38. With respect to the dangers and risks of flood events **they underline** the importance of increased information of the public in order to strengthen the awareness and to enhance private precaution (e.g. flood-adapted construction and restoration, flood insurance, preventive behaviour). In this connection, the establishment of flood partnerships might prove useful.

Climate Change and Adaptation

39. **The Ministers and the Representative of the European Commission take note of the following**:

a. According to the study of scenarios for the discharge regime of the Rhine commissioned in 2007, there was a trend towards increased discharges of the Rhine in winter and lower discharges in summer and towards a greater number of small and intermediate floods throughout the year, a trend confirmed by climate projections;

b. Rhine water temperatures develop in parallel to increased air temperatures and that thus, in future, extreme situations, i.e. distinct periods of low flow will occur in summer, mostly in connection with high air temperatures and

cause problems for the ecological functionality and the use (e.g. water supply, navigation) of water bodies.

40. **They state** that:

a. the flood prevention measures implemented so far within the Action Plan on Floods to reduce flood risks go in the right direction and that measures already taken to increase water retention and the flood resilience of areas must in future be reinforced, taking into account aspects of climate change;

b. due to the expected developments, low flow events, in particular in summer and in connection with high water temperatures must be followed with more attention.

41. **They ask the ICPR**:

a. to draft a preliminary ICPR climate adaptation strategy for the Rhine catchment, based on the assessment of available studies/the diagnosis on the discharge regime (floods and low flow) and on the temperature regime and to check proposals for adaptation measures concerning the expected effects of climate change, based on management plans existing in the different states/regions. In the near future the ICPR will decide on further steps, eventually on an ICPR low water (management) plan;

b. to take into account socio-economic developments when drafting the strategy of adaptation to climate change and to include all actors concerned.

Future cooperation

42. **The Ministers underline** the importance of the hitherto open and trusting cooperation between the states, a prerequisite for the successes achieved within the ICPR.

43. **The Ministers and the Representative of the European Union welcome** the successful coordination between the EU Member States and the EEA state Liechtenstein as well as Switzerland when implementing the WFD and the Floods Directive in the international Rhine river district. Switzerland and Liechtenstein will continue to support this harmonization work on the basis of national law and express their determination to co-operate with the EU in the field of water policy.

44. **They welcome** the close cooperation in implementing the MSD and timely implying all inland countries via the ICPR, since the important parts of the directive concerning migratory fish, eutrophication by nutrients and pollution also play a role in the implementation of the WFD.

45. **They recognize** that a more precise development of the targets for the implementation of the MSD may lead to an additional need for action in the Rhine river district with respect to floating wastes (including micro-plastics) - even for inland countries and ask the ICPR to pay attention to this issue within the entire catchment area.

46. **They welcome** the constructive and trusting cooperation between the states and the EU in the ICPR and between the ICPR and acknowledged observers. This cooperation must be continued and the ICPR is open and willing to cooperate with other organizations or networks.