

The climate change adaptation strategy for the Rhine river basin

Approach and follow-up activities

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WATER AND CLIMATE SUMMIT – Rome 23 -25 October 2017



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Schutz des Rheins

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pour la Protection
du Rhin

Internationale
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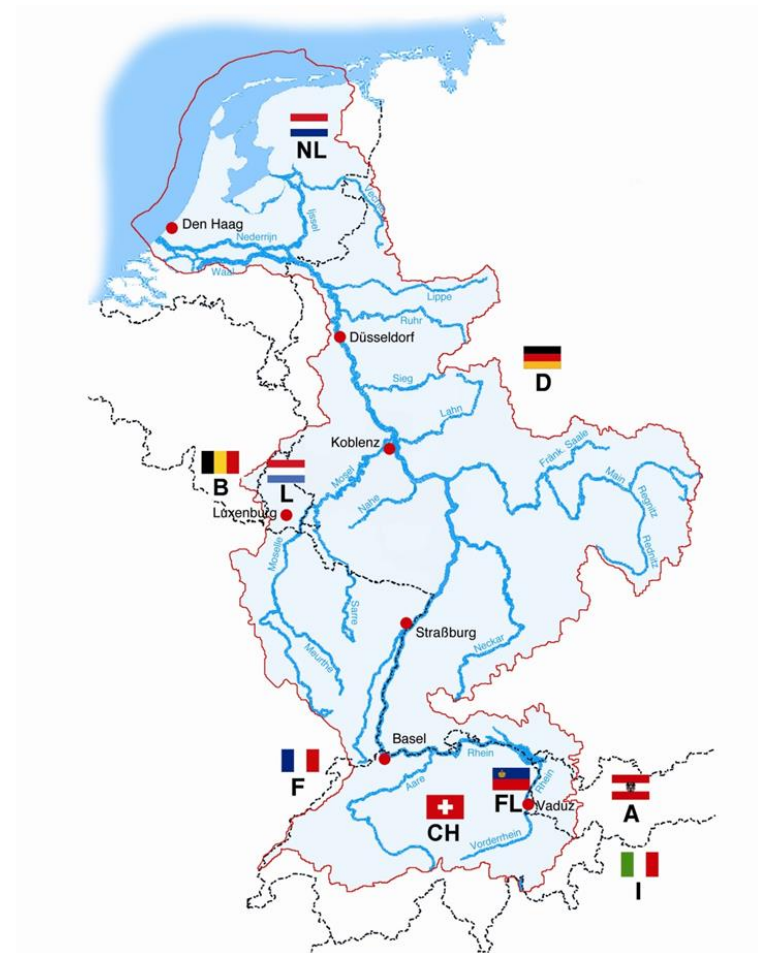
International
Commission
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of the Rhine

Discharge regime



Middle and Lower Rhine

floods mainly in winter/spring

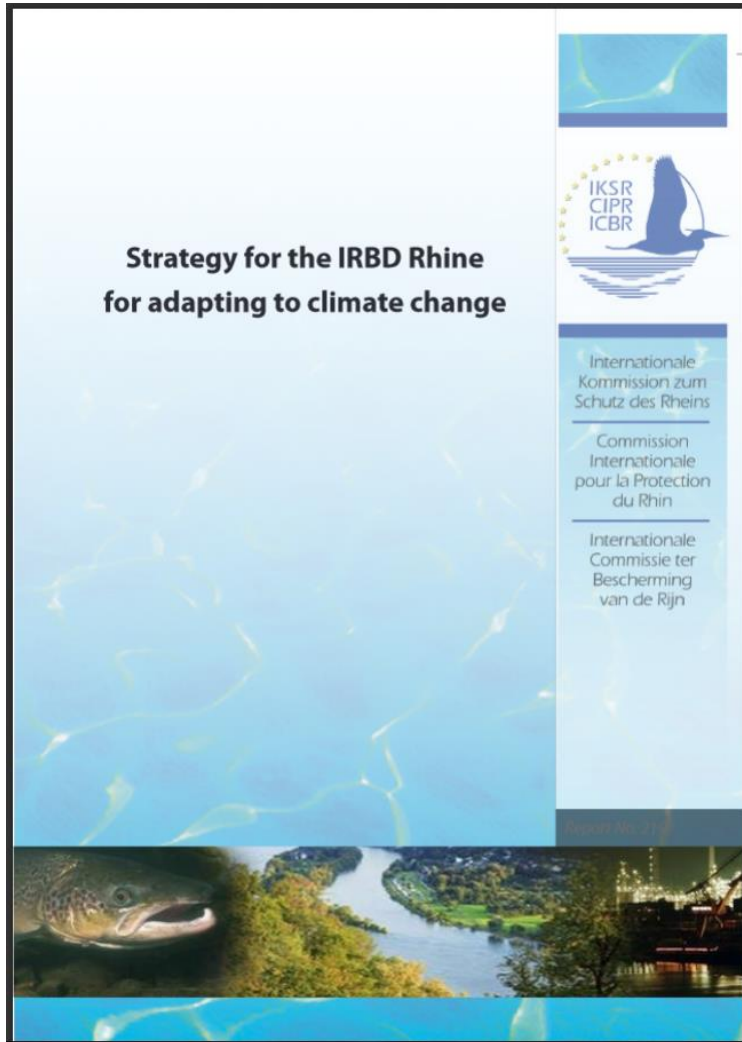


Alpine Rhine, High and Upper Rhine

floods mainly end of the spring/summer

Climate Change Adaptation Strategy

ICPR report No. 219

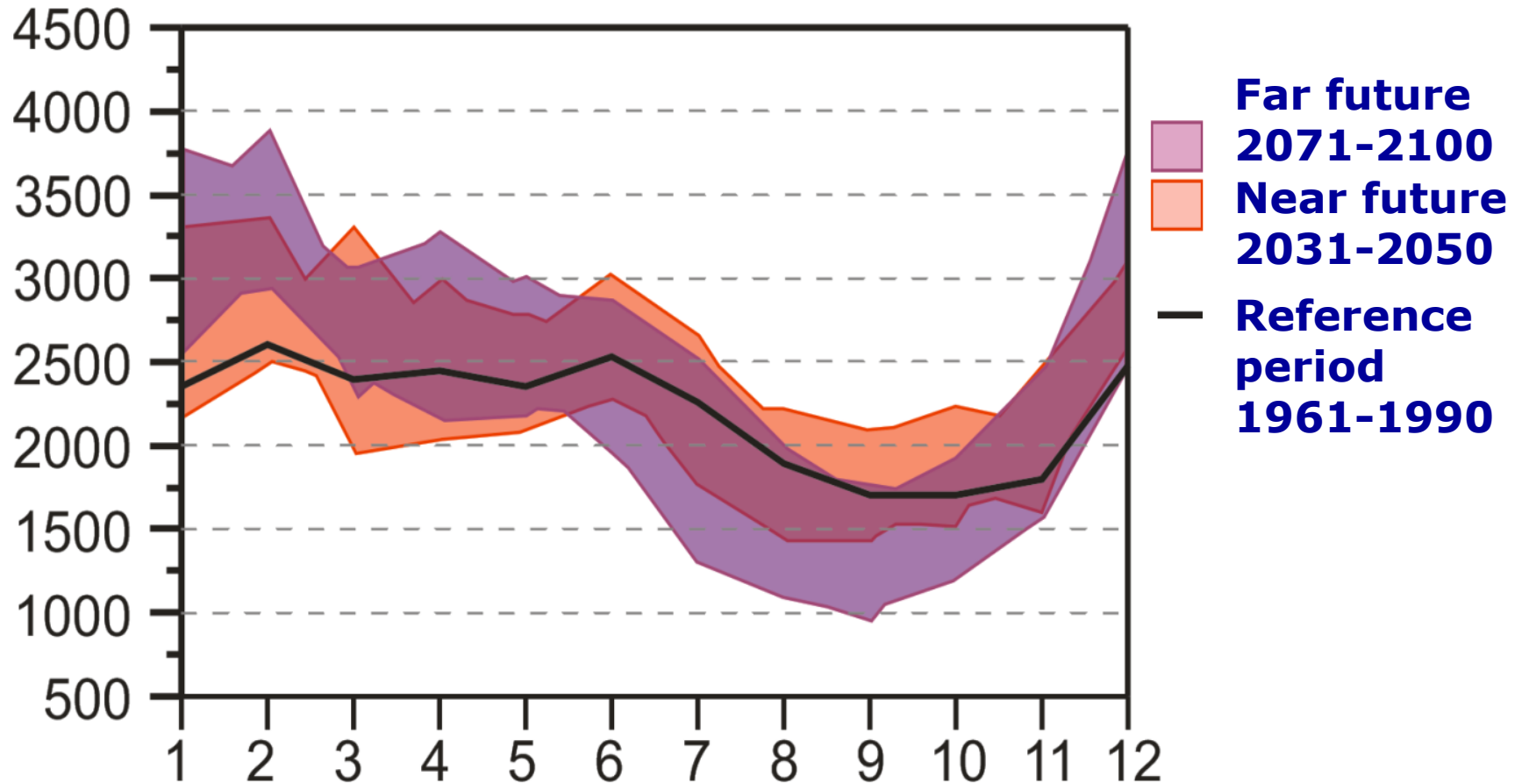


Identification of:

- **Direct effects** of CC on flow regime and water temperature (multi-model analysis, scenario building)
 - **Indirect effect** thereof on
 - ecology
 - water quality
 - **Impact on different uses**
- **challenges**

Possible effects of CC on discharges – near and far future

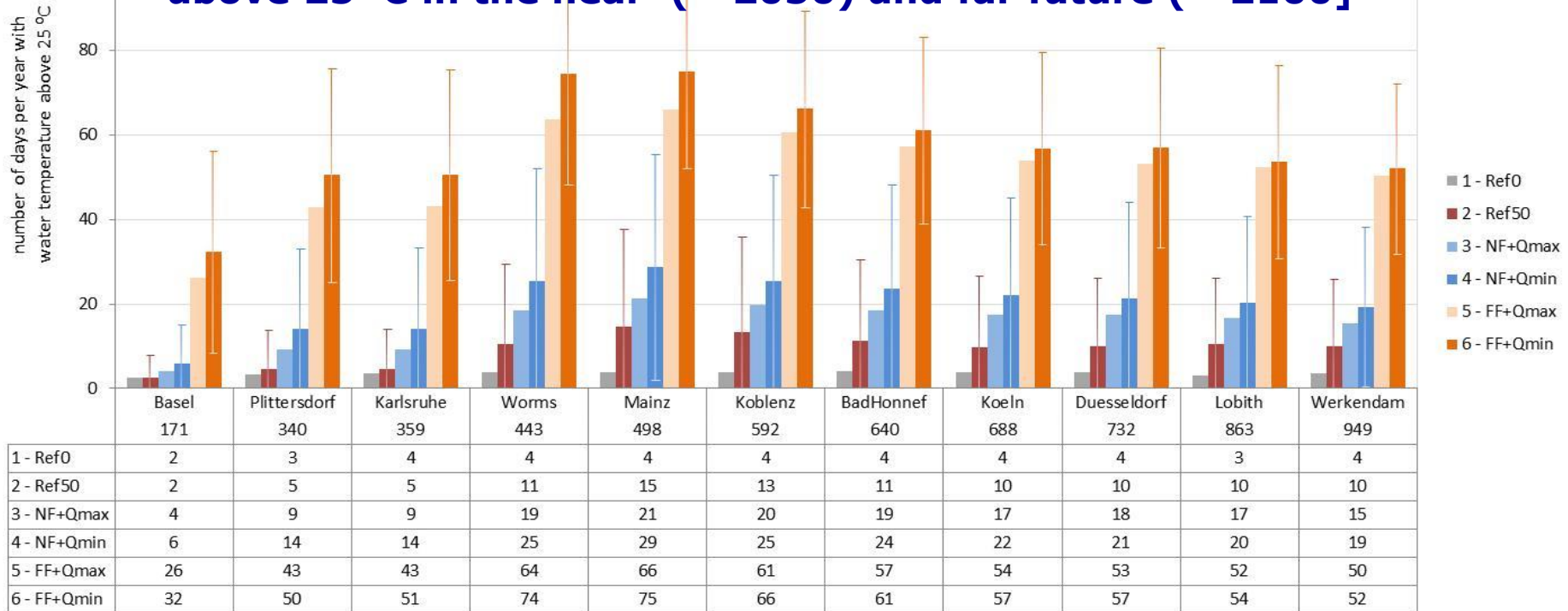
Increase of average monthly discharge [m^3/s]



Cologne gauge

Possible effects of CC on water temperature – near and far future

Average number of days per year with water temperatures above 25 °C in the near (- 2050) and far future (- 2100]



- **wetter winter, drier summer (risk of low water)!**
- **higher water temperature (specially during low water): impacts on water quality and ecology**

Action is needed

- **Existing activities pave the way to enhance the resilience of the river & floodplain ecosystems**
- **Strengthen monitoring activities (discharges, water temperature, water quality) to learn more about changes**
- **Especially for low discharge periods in the River Rhine (*2017: expert group on Low Water*)**
- **Continuous exchange of best practice, new results and implementation of mitigation measures**

Action is needed



**Internationally Coordinated
Management Plan 2015
for the
International River Basin
District of the Rhine**

(Part A = Overriding Part)
December 2015



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**Internationally Coordinated
Flood Risk Management Plan for the
International River Basin District of
the Rhine, Part A**

December 2015



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Report No. 233

Next steps

Periodically update today's knowledge on climate change effects or new national adaptation strategies

→ Periodically update the strategy of the ICPR (eventually, redirection of action)

Preparation of two management plans 2021 according to EU directives including more aspects of CC adaptation

(Continuous) inventory of ongoing and/or planned measures

Example of win-win measure

