Climatic changes and their effect on hydrology and water management in the Rhine basin

Workshop
June 24-25th, Ede, The Netherlands

Workshop goals
Peter Krahe – BfG, Koblenz
Hendrik Buiteveld - RIZA, Arnheim
Laurent Pfister-CRP-Gabriel Lippmann, Luxemburg
Eric Sprokkereef- CHR/KHR
Christoph Ritz -ProClim, Bern
Today's mission and tasks

- initiate and elaborate documents in the field of Hydrology, which are important for sustainable resource management of the River Rhine and the rivers in the catchment

- promote collaboration of hydrological institutes

- supporting the realisation of a sustainable river management by delivering the Decision makers of the bordering states as well as the EU with their findings

- and by the evaluation and development of strategies and measures
The River Rhine basin
## Climate impact related KHR/CHR projects

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<th>Background</th>
<th>Themes</th>
<th>Questions</th>
<th>Outputs</th>
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<td>Eu-Project (1995 - 1997)</td>
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<td>Impact of climate change on hydrological regimes and water resources management in the Rhine basin</td>
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<td>The project leads to the</td>
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<td>Nijmeger declaration</td>
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<td>Ongoing project (2002- 2005)</td>
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<td>Changes in the discharge regime of the river Rhine</td>
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**A new project?**

- present state of the art climate scenarios
- progress in hydrological modelling

**A lot of research was going on in the last decade**

**What do we know what not?**

**A workshop**
Structure of the workshop

- representatives of research groups
- presentations & discussion
- questions to be answered and to be posed
Climate change & hydrology & water resource management

From knowledge to action

- Background
- Themes
- Questions
- Outputs

research

open questions

recommendations

Action
  e.g. planning

order
given
An example

Themes

Background

Questions

Outputs

peak discharges Lobith 1901-2003

discharge [m³/sec]

Workshop themes

**Theme I:** Observed variability in climatological and hydrological data  
(chairman Dr. Laurent Pfister)

**Theme II:** Creation and interpretation of climate scenarios  
(chairman Dr. Christoph Ritz)

**Theme III:** Discharge regimes and hydrological extremes – What do the models predict?  
(chairman ir. Hendrik Buiteveld)
1. How do you judge the present state of research for the themes you have presented?

2. What are in your opinion the main problems and deficits in the research you have presented?

3. What knowledge of other parties do you need to realise the main goals of your research?

4. ?

5. ?
Climate modelling & spatial scale & uncertainty

Background
Themes
Questions
Outputs
Expected Outputs

- exchange of information, experience and ideas
- identification of lacks in own knowledge
- thinking about methods and strategies to overcome these lacks (coordinated activities)
- synthesis report with regard to the River Rhine basin