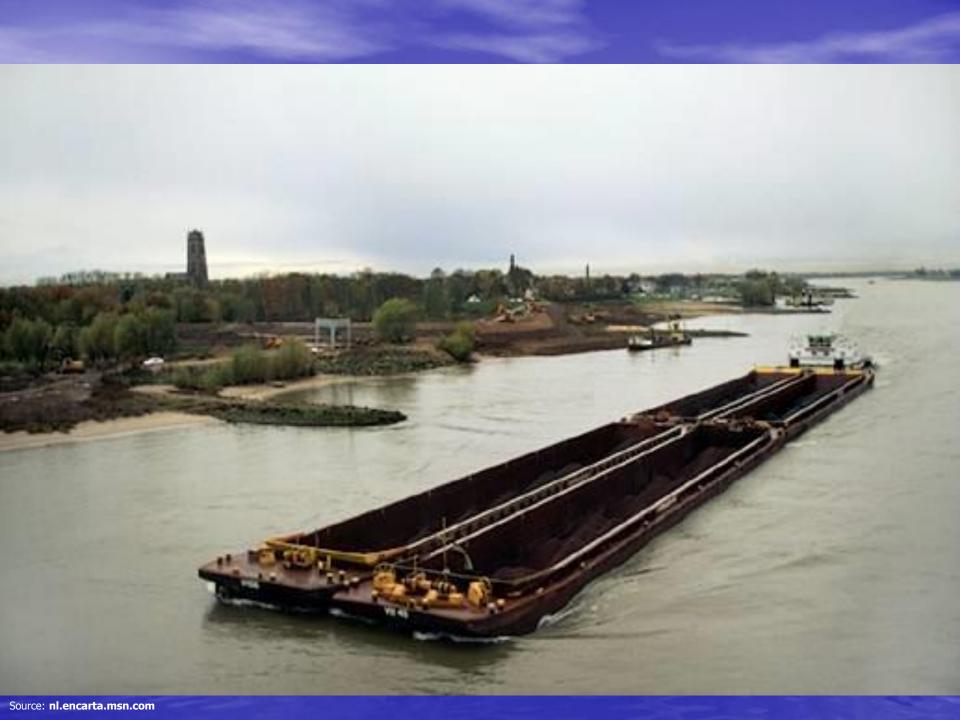
The warming up of the Rhine





Source: atourspeche.nuxit.net















Management of the Rhine, I

- Mostly national and subnational
- 1950/ 1963: International Commission on the Protection of the Rhine

1970: Rhine dead

- 1976: Chemicals Convention and Chlorides Convention
 - 1986: Sandoz disaster
- 1987: Rhine Action Plan 1993/5: Flooding
- 1998: Action Plan Flood Protection
- -2001: Rhine 2020

www.iksr.org

Management of the Rhine, II

Also: European Union

- 1976: Dangerous substances directive
- Fish water directive (2006/44/EC)
 - E.g. standards for T
- 2000: Water framework directive (2000/60/EC)
 - "Good water status" in 2015
 - (International) river basin management planning
 - Rhine: Rhine water directors meetings

Climate change 1990-2050

www.knmi.nl

Global	M	M+	E	E+
Т	+1 °C	+1 °C	+2 °C	+2 °C
Circ. pattern change	N	Υ	N	Υ
NI Winter				
Prec.	+4%	+7%	+7%	+14%
NI Summer				
Av. Temp.	+0.9 °C	+1.4 °C	+1.7 °C	+2.8 °C
Prec.	+3%	-10%	+6%	-19%
Pot. evaptransp.	+3%	+8%	+7%	+15%

Assignment Rhine, I

Client:

- European Environment Bureau
- RWE
- Secretariat of the International Commissions for the Protection of the Rhine as supporting body for the Rhine Water Directors, or
- Environmental Ministry NRW

Answer the following questions for your client:

- What will be the *impact of climate change* on the *temperature* of the Rhine river water and ultimately on the *functions* of the Rhine river?
- What measures could be taken to reduce the heating up of the Rhine and/ or the negative effects of heating up?
- Who should take what type of action?

Assignment, general

Activities:

- Analyze stakeholders
- Model the problem
- Draw conclusions
- Give recommendations
- Discuss your own work and the usefulness of the IWRM theory
- Cooperate

See "Additional Information CIE4450" on Blackboard

You work for a client, but do not forget the other "stakeholders"

- a) Affected stakeholders
 - Organizations, groups and individuals who are affected by the problem or a possible solution
 - b) Influential stakeholders
 - Organizations etc. who may influence the problem or its solution

Sh's can be caracterized by their:

Interests and goals

- E.g. nature protection, economic profit
- Official and unofficial

Resources

- Legal powers
- Money
- Political influence
- Information and expertise
- Etc.

A <u>possible</u> typology of stakeholders...

	Water manage-ment	Other govn. sectors	Non-go- vernmental
Internatio- nal level			
National level			
Regional/ local level			

REPORTS THAT ARE NOT CORRECTLY REFERENCED WILL NOT BE ACCEPTED!

- Say what you have to say in your own words
- Do not copy texts
- State your sources
- See <u>tulib.tudelft.nl/publishing/how-to-cite</u>!!!