

## A Method to Develop Sustainable Water Management Strategies for an Uncertain Future

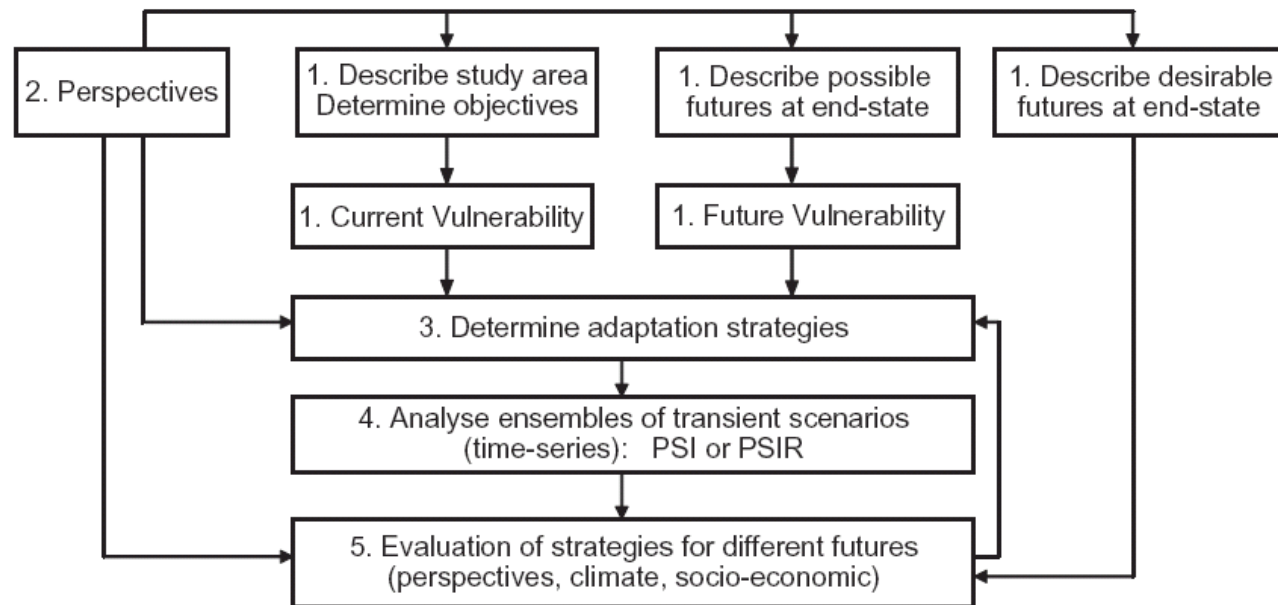


Figure 1. Flow chart of conceptual approach (Haasnoot et al. 2011, 373)

# Transient Scenarios

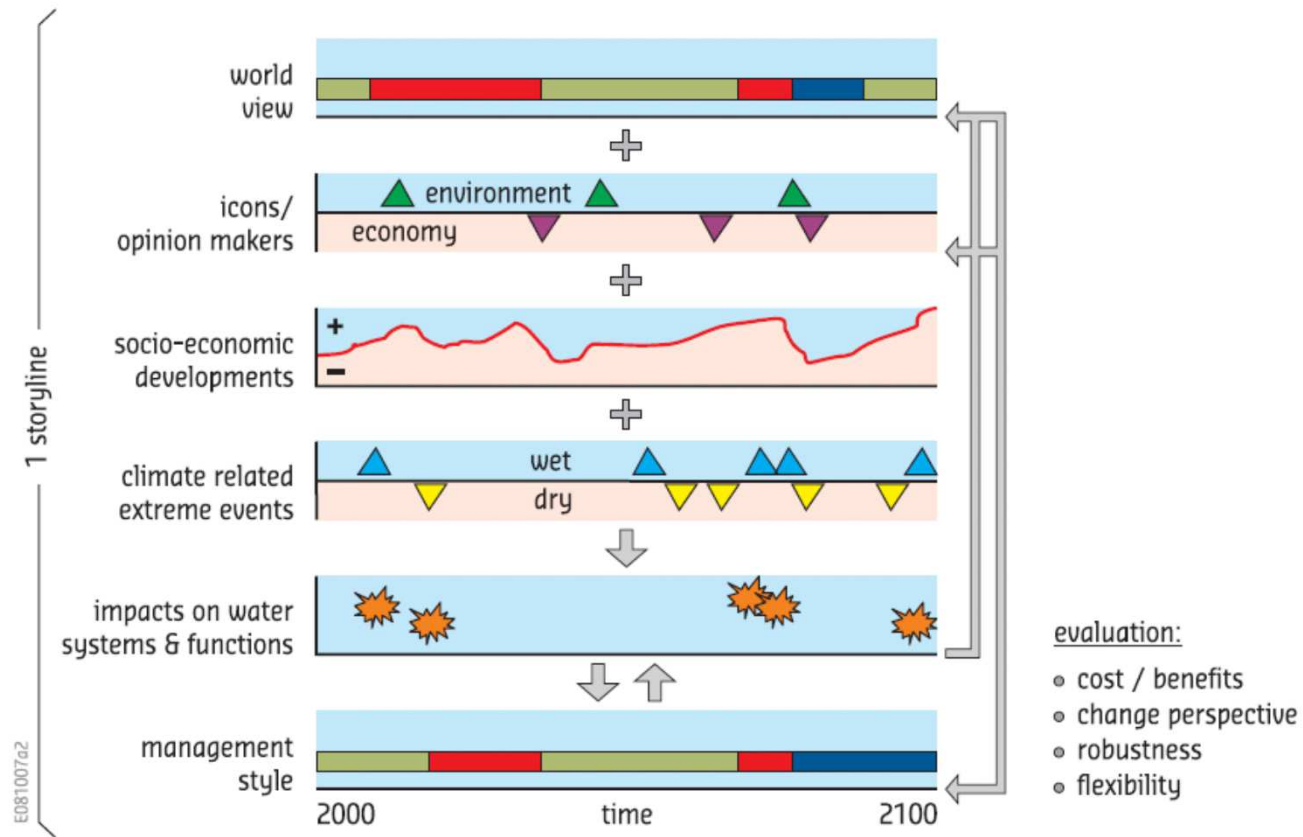


Figure 2. Flow diagram for the effect analysis of transient scenarios to evaluate the sustainability of strategies (Haasnoot et al. 2011, 374)

## PSIR Framework

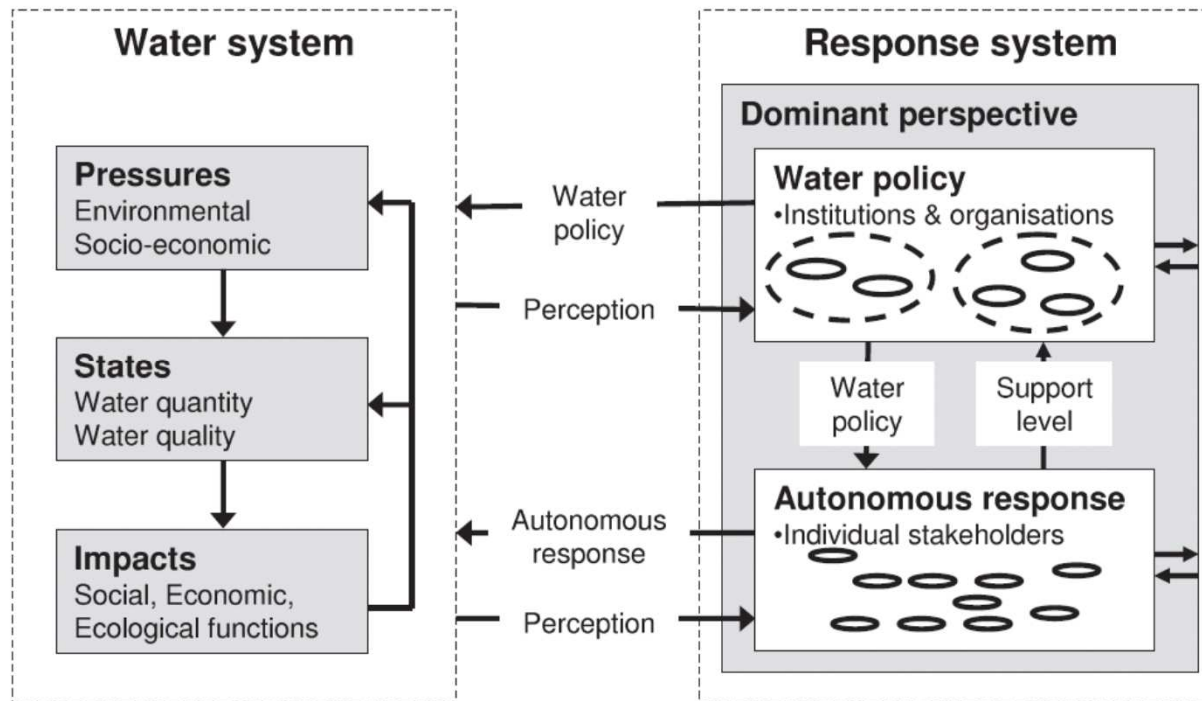
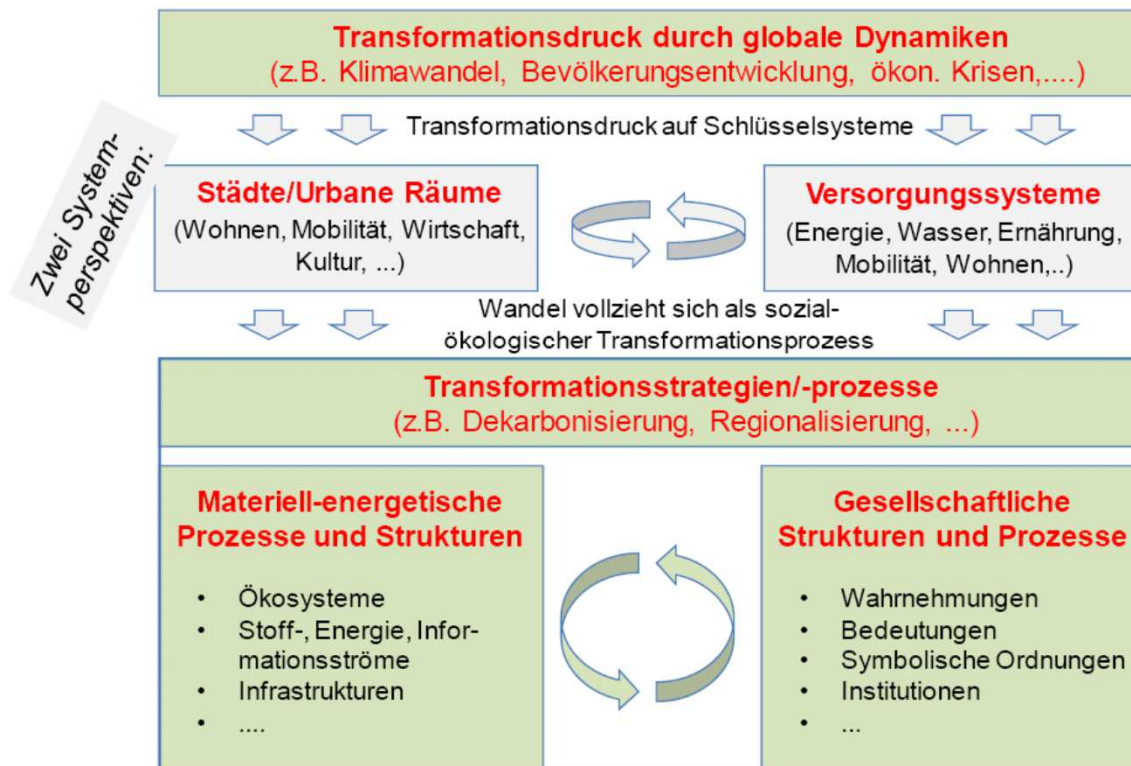


Figure 3. The PSIR framework, which shows the relation between the water system and the social system (Offermans et al. 2011, 314, based on Valkering et al. 2008c, 2009))

# Transformation Processes

## Vernetzte Transformationsprozesse von sozial-ökologischen Systemen



Bundesministerium für Bildung und Forschung 2012, 9

## Conceptual Model

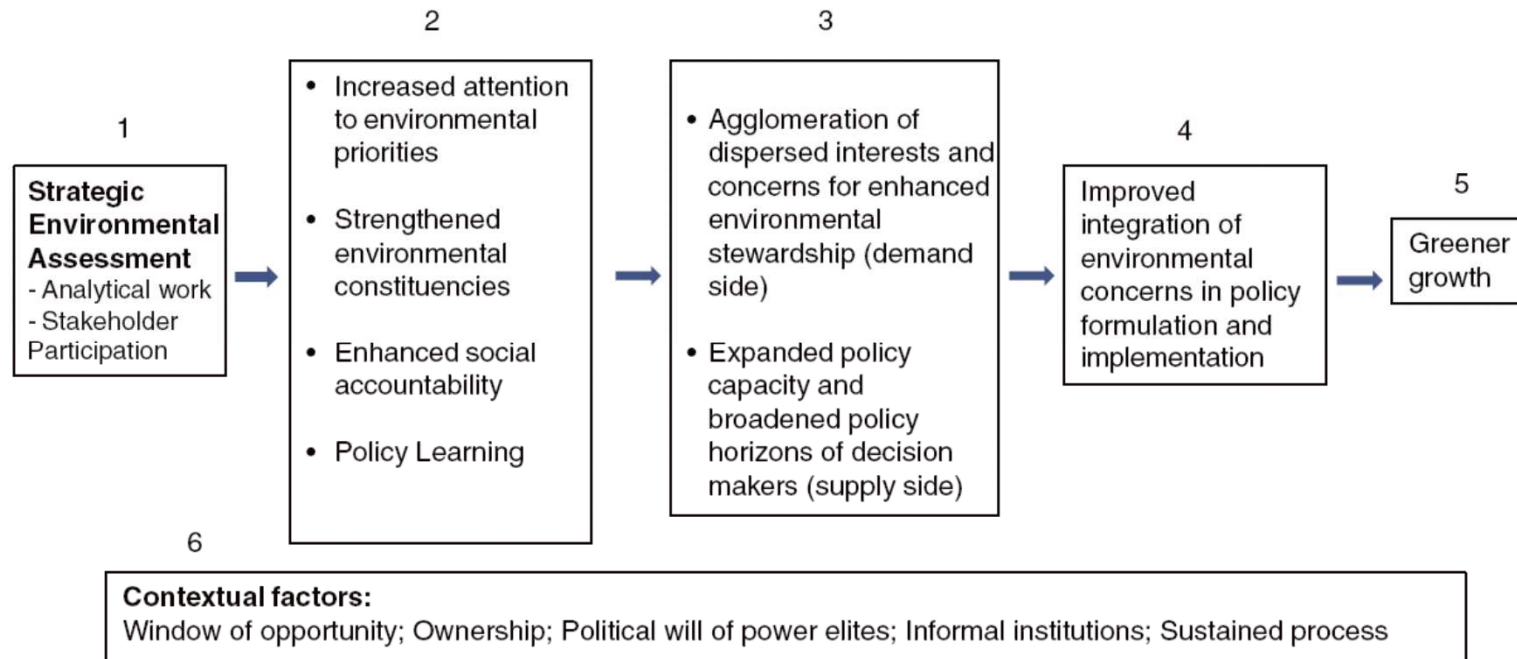


Figure 4. Conceptual model linking strategic environmental assessment and green growth (Slunge and Loayza 2012, 248)

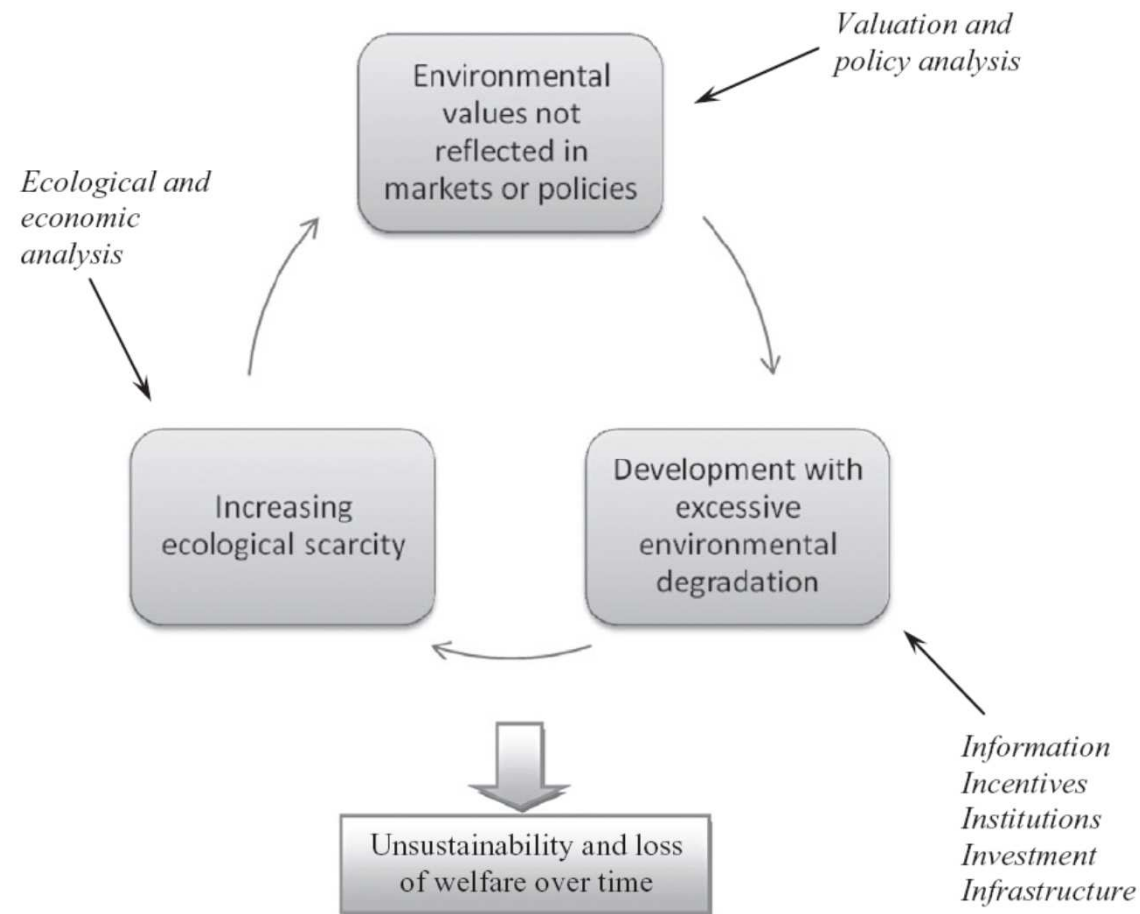
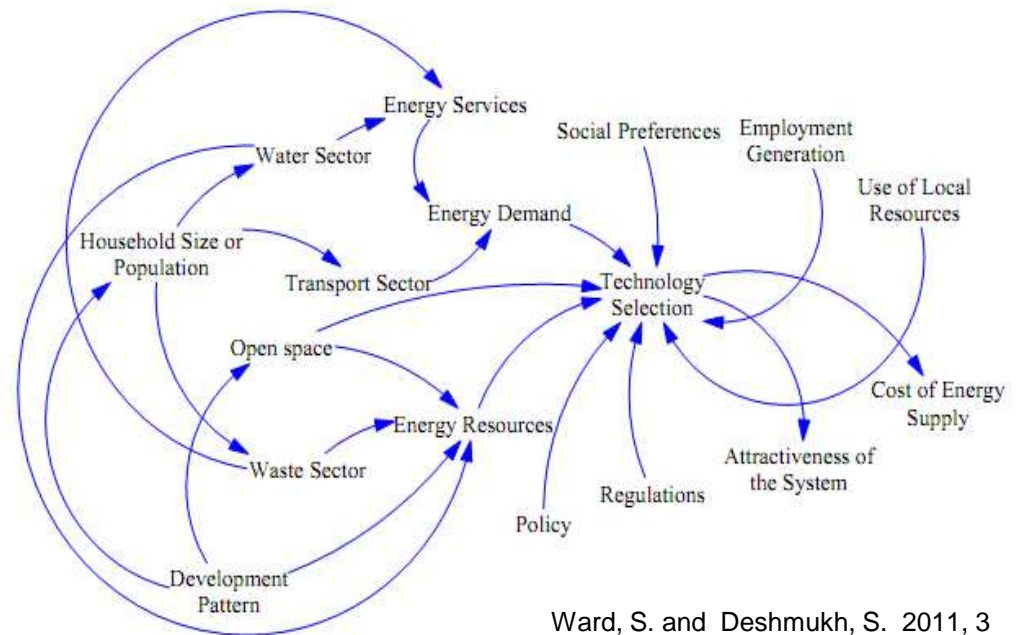
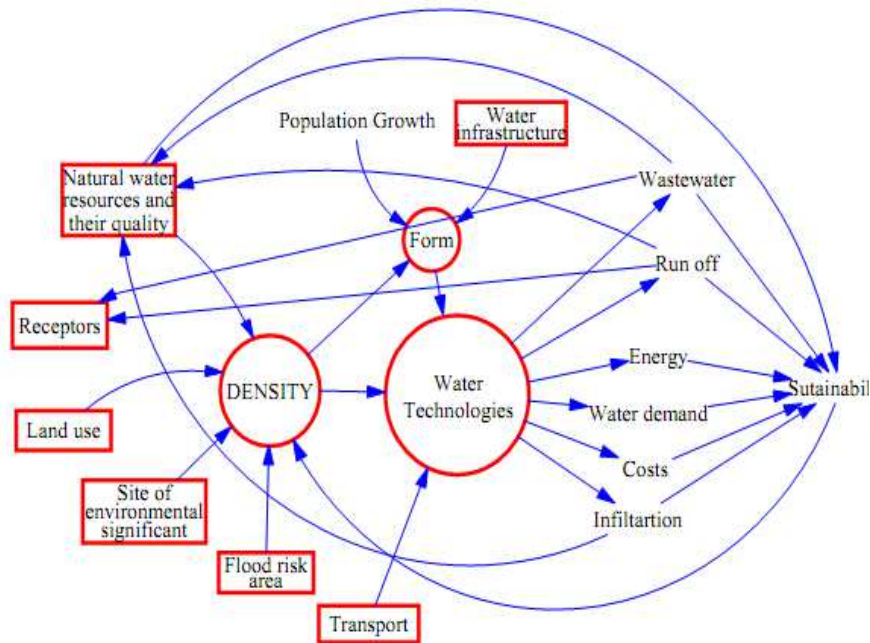


Figure 5. Reversing the vicious cycle of „unsustainable“ development (Barbier 2011, 237)

# Technology Choices



Ward, S. and Deshmukh, S. 2011, 3

**Water Supply Options**  
Ashford Integrated Water Management Study

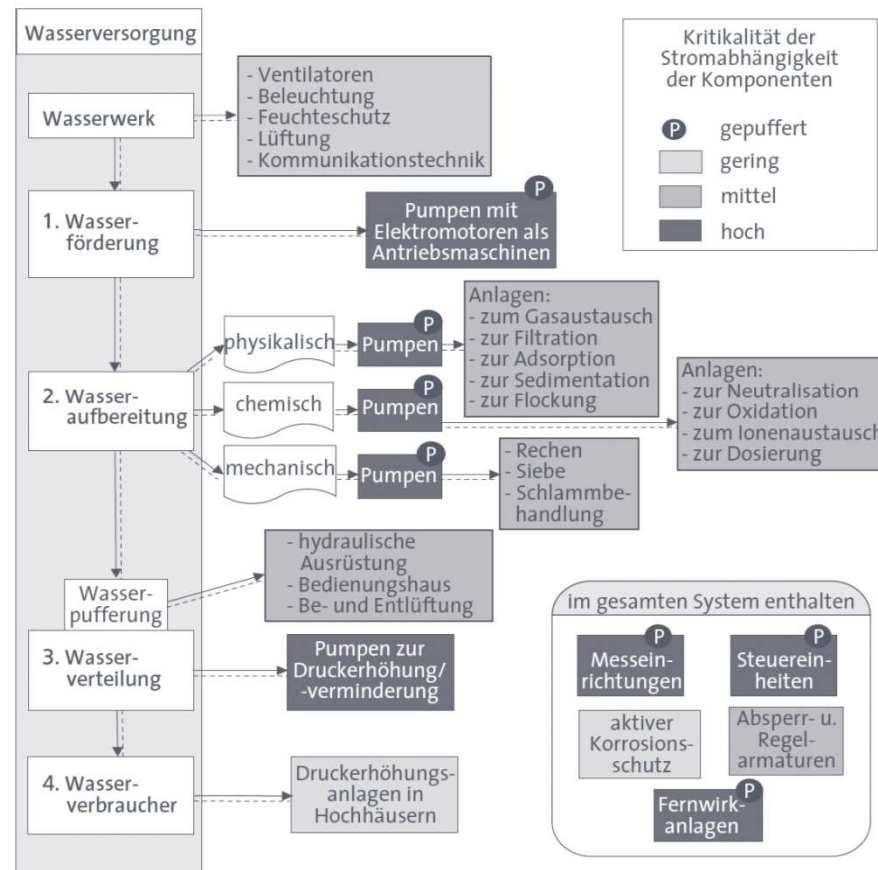
**Water-Energy Integration (WEI) Options?**  
**WEI Study/Strategy?**

**Energy Supply Options**  
Sustainable Energy Feasibility Study

*So far, choices have been made individually without investigating integration avenues...*

# Current dependence in the water supply

ABB. 16 ÜBERSICHT DER TECHNISCHE ELEMENTE IN DER WASSERVERSORGUNG UND DER STROMABHÄNGIGKEIT





# Impact of climate change on river water quality

