Uncertainty in planning approaches for water management

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Some quotes

"Adaptive Delta Management is … adopted as solution to deal with developments whereof the direction is clear, but the speed uncertain" (DP 2015; 7)

"The involved stakeholders see large benefits of Adaptive Delta Management, which makes the uncertain tasks for the long term manageable" (id. 145)

"What we hope to add is the recognition that uncertainty, feedback and complexity must be addressed explicitly" (Islam & Susskind 2012; 13)

"This [agreement package] usually includes contingent commitments as a way to deal with uncertainty or disagreements about the future" (id. 147)

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	Subsystem	Ontic	Epistemic	Ambiguity I	Ambiguity II
1	Physical subsystem				
2a	Physical-economic subsystem				
2b	Physical-political subsystem				
2c	Physical-cultural subsystem				
3a	Socio-economic subsystem				
3b	Socio-political subsystem				
3c	Socio-cultural subsystem				
4	Social system				

Level 1 – shallow uncertainty	
Level 2 – medium uncertainty	
Level 3 – deep uncertainty	
Level 4 – recognised ignorance	

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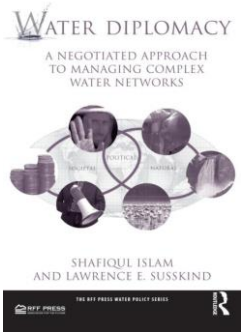
Assessing planning approaches

Water Diplomacy



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Adaptive Delta Management

Results

"What we hope to add is the recognition that uncertainty, feedback and complexity must be addressed explicitly" (Islam & Susskind 2012; 13)

- WD claims to address all uncertainties in water management problems (with awareness of socio-physical systems)

"This [agreement package] usually includes contingent commitments as a way to deal with uncertainty or disagreements about the future" (id. 147)

- WD conceptualizes physical, high level uncertainty of ontic and epistemic nature, and internal ambiguity via disagreement; WD 'deals' mainly with disagreement / internal ambiguity.

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Results

"The involved stakeholders see large benefits of Adaptive Delta Management, which makes the uncertain tasks for the long term manageable" (DP 2015; 145)

- ADM claims to manage all long term uncertainty around water management, mainly the 'physical' but also the social system

"Adaptive Delta Management is … adopted as solution to deal with developments whereof the direction is clear, but the speed uncertain" (id. 7)

- ADM conceptualizes level 2 & 3 uncertainty of ontic and epistemic nature; ADM manages mainly the temporal dimension of uncertainties located in the physical subsystem

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Conclusion

- **There exists a mismatch in planning approaches**, regarding;
  - Claim of which uncertainties will be managed
  - The conceptualisation of uncertainties,
  - The envisaged solutions in policy and decisions

- Possibly **leading to**:
  - Maladaptation
  - Under- or overinvestments
  - Mismatch approach – problem resulting in superfluous knowledge or negotiated nonsense

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Questions?

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