

# Three challenges for climate adaptation

Workshop on Barriers to Adaptation to Climate Change

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# Three challenges



Developing and implementing infrastructural adjustments



Enhancing broader processes of societal change



Increasing the adaptive capacity of society

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# Consequences for thinking about barriers for climate adaptation

- different governance challenges
- different conceptualizations of barriers
- different responses and intervention strategies to overcome barriers
  
- See also PhD work of Robbert Biesbroek



# Levels of change from organizational theory

First order	Second order	Third order
Improvement	Transitions	Transforming
Doing the same things better	New products, new markets, new services	New values and identities
Changing technologies and procedures	Changing structures and cultures	Learning to learn; reflection
0-5 years	5-15 years	10-30 years
Planned change	Co-production of change	Continuous change

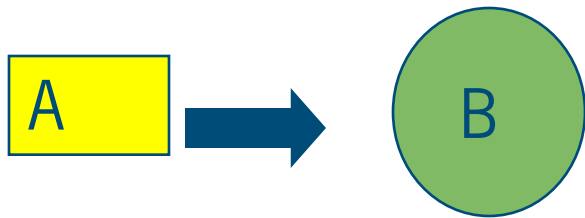


# Levels of change and climate adaptation



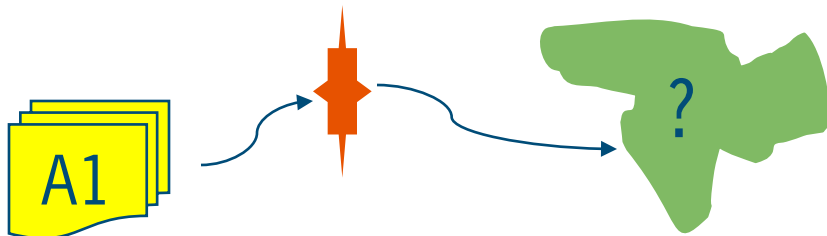
**First order:**

**Developing and implementing infrastructural adjustments**



**Second order:**

**Enhancing broader processes of societal change**



**Third order:**

**Increasing the adaptive capacity of society**

# First order: Developing and implementing infrastructural adjustments



- developing, choosing and implementing the best technical solution/alternative
- complex problems: no agreement on facts and values
- object of complex decision making processes



# Barriers: obstacles and hindrances

- process of muddling through
- usual difficulties and opportunities
  - scarcity of resources
  - scarcity of knowledge
  - scarcity of attention
  - conflicts of competence/bureaucratic politics
  - conflicting interests and resistance
  - lengthy procedures and negotiations
- result in delay or (temporarily) stopping the process



# Responses

- strategic power play
- changing the process architecture
- changing the content of the adaptation strategy
- waiting for a new window of opportunity





# Second order: broader processes of societal change



- new concepts of agriculture, water management, or spatial planning
- changes in the way of looking, thinking and acting, with sweeping consequences for organizations, markets, technology and social relations
- goes beyond isolated instances of innovation brought about by a few people
- transition management theories





# Transition processes

## ■ Ideal view:

- niche innovations in small networks
- processes of experimenting and learning
- up-scaling
- adjusting institutional constraints
- stabilizing/normalizing

## ■ Realist view:

- trial and error, breaks through and set backs, acceleration and standstill



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# Barriers: unbalanced interplay of dynamics and stagnations

- Stagnations caused by:
  - lack of out of the box thinking
  - little support/protection of niche innovations
  - lack of learning
  - conflicts with institutions (cultures and structures), maintained by power relations
  - path dependency
  
- Responses: interventions to unblock stagnations



# Third order: Increasing the adaptive capacity of society

- the ability of society to adjust to the known and unknown changes in weather patterns
- improving preparedness
- enhancing conditions that allow and encourage societal actors to adapt
- organizational and institutional conditions



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# Organizational conditions

*(Termeer and Van den Brink, 2012; Weick and Sutcliff, 2002)*

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1. allow for clear identities
2. appreciate past experiences
3. stay in motion
4. interact respectfully
5. encourage improvisation and bricolage
6. look closely and update often
7. develop an attitude of wisdom



# Institutional conditions: The adaptive capacity wheel (Gupta, Termeer et al, 2010)



# Barriers: Lack of organizational conditions

- coupling identity to a single issue like terrorism or flooding
- the reliance on one possible truth
- no culture of continuously questioning insights and investigating alternative explanations
- corrosion of inter-organisational trust based networks
- dominance of management approaches that focus on clarity, rationality, reductionism and efficiency
- pressure of cutbacks and efficiency operations



# Barriers: Lack of institutional conditions

- redundancy is given less priority than efficiency in most sectors
- paternal role of the state, strong reliance on government, unclear distribution of responsibilities
- lack of improvising capacity of society
- lack of leadership
- lack of long term financial resources
- lack of flexible and responsive regulations





	<b>Developing and implementing infrastructural adjustments</b>	<b>Broader processes of societal change</b>	<b>Increasing the adaptive capacity of society</b>
Level of change	First order	Second order	Third order
Governance challenges	Dealing with the usual difficulties of complex policy making processes	Influencing the direction and pace of transitions	Enhancing conditions that allow and encourage societal actors to adapt
Barriers	Obstacles	Stagnations	Lack of conditions
Examples	Resistance, lack of resources, competence conflicts	Lack of learning or enabling leadership, institutional barriers	Threatened identity, lack of social networks, strong reliance on government
Responses	Adjustment of strategies	Interventions to unblock stagnations across	Indept institutional and organizational change to increase

# Discussion and conclusion

- all challenges important
- overlapping perspectives
- barriers can negatively reinforce each other
- successful responses can positively reinforce each other

