



Towards an institutional economics theory of climate adaptation: insights from a meta-analysis of case-study evidence

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Overview

- 1) Introduction
- 2) Method of the Meta-Analysis
- 3) Insight I: Institutional Design Properties of Effective and Equitable Public Sector Adaptation in Europe
- 4) Insight II: Modelling adaptation
- 5) Conclusions

(1) Introduction

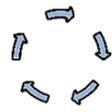
- Idea of this presentation
 - The case study literature on CCA offers a rich source of empirical information to develop the Institutional Economics of Climate Adaptation.
 - The research programme of Institutional Economics provides useful analytical tools to advance CCA research.

 - Two contributions of this presentation
 - (1) Content: Properties of institutional arrangements that characterize effective and equitable CCA across a larger number of cases.
 - (2) Method: Modelling adaptation with tools from institutional economics is a vehicle for *more systematic explanations* of CCA.
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(2) Method of the meta-analysis

Model-centered Meta-analysis

(Rudel 2008, *Global Environmental Change*)

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- Searching and selecting the relevant (case study) literature
 - Coding scheme; Coding 
 - Analyzing the data set

- Conceptual foundation:
Diagnostic framework of climate adaptation
("IAD framework adapted to climate adaptation")

(2) Method of the meta-analysis

Descriptive statistics

- This presentation: Subsample of 25 cases in 12 studies.

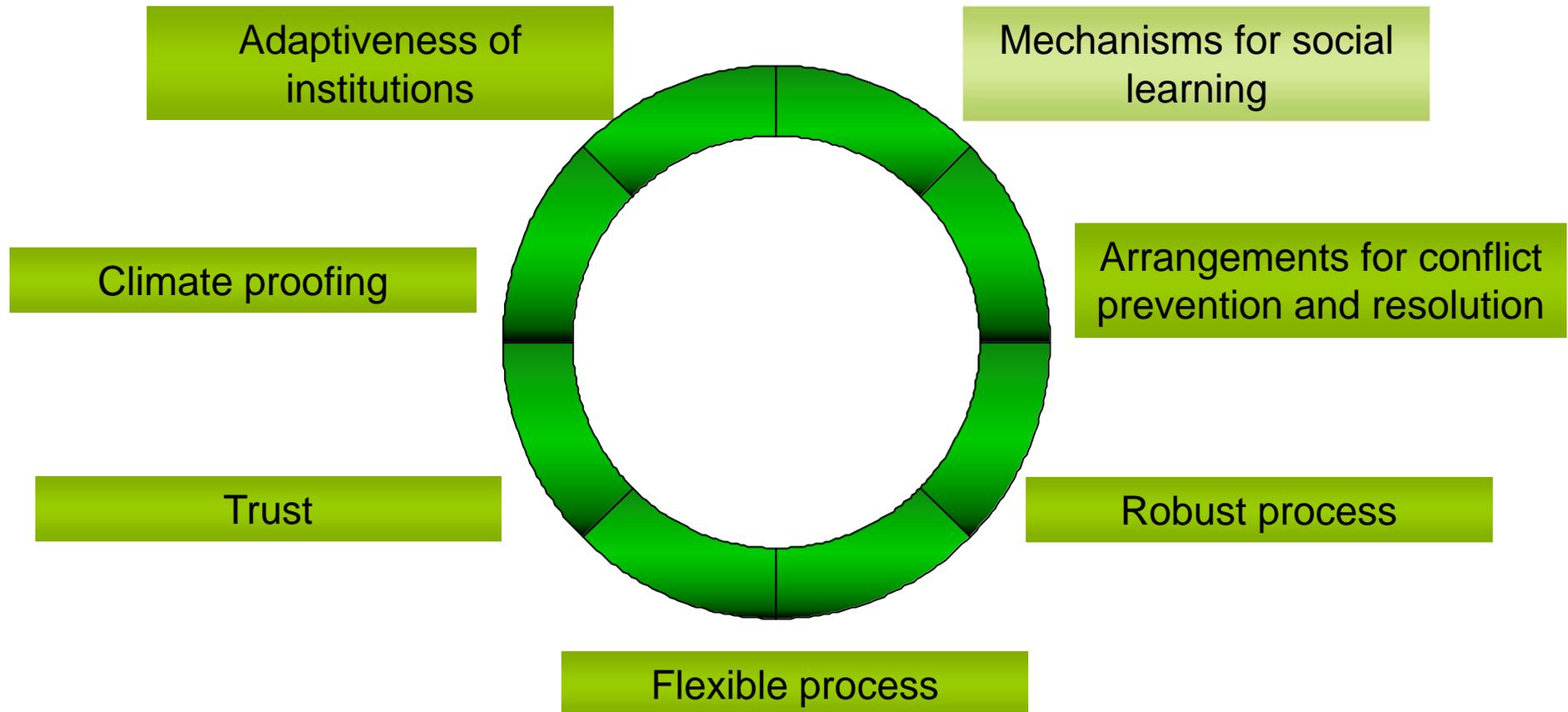
Hazards		Countries		Data Sources	
Flood	7	Netherlands	6	Interviews	9
Multiple	4	Norway	3	Policy and planning documents	6
Coastal Erosion	1	Sweden	2	Workshops, focus groups, roundtable discussions	3
Drought	1	UK	1	First-hand experience	2
		Germany	1	Stakeholder consultations	1
		Ireland	1	Scientific literature	1
				Questionnaire	1

12 studies; multiple counting possible.

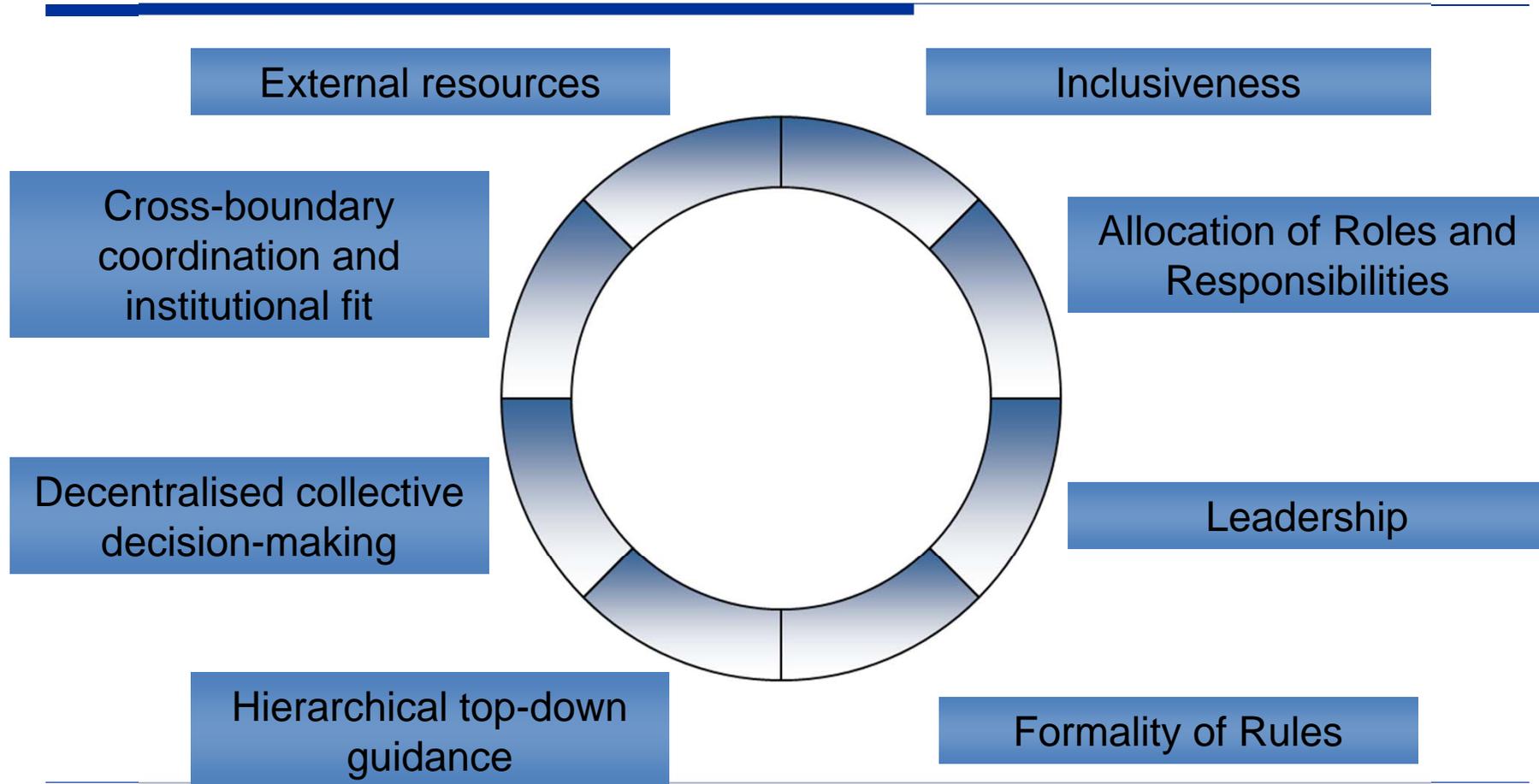
(3) Institutional Properties of Effective and Equitable Public Adaptation in Europe

- Distinction of 17 institutional properties.
- Models showing their effects on adaptation processes.
- Converging evidence for some properties, diverging evidence for others.

(3) Institutional Properties of Effective and Equitable Public Adaptation: converging evidence



(3) Institutional Properties of Effective and Equitable Public Adaptation: diverging evidence



(4) Modelling adaptation

(4) Institutional Economics and CCA Research

From descriptive catalogues of barriers & drivers to explanation

- How do the barriers/drivers precisely shape CCA processes?
- Effects when 2-3 barriers change, but others remain constant?
Invest in that change?

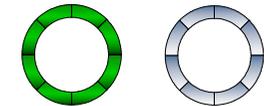
From contextualism to archetypes

- National/international policy making
- Learning across cases
- Scientific drive of understanding patterns

- Modelling adaptation: a bounded rationality framework

(5) Conclusions

- Institutional properties of effective/equitable public adaptation:

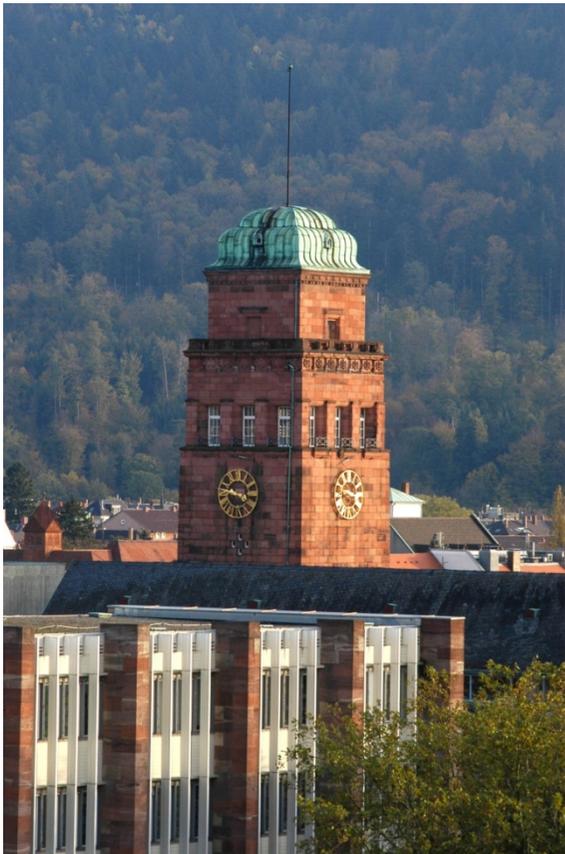


- A few institutional attributes are clearly enabling factors, e.g. mechanisms for social learning and conflict prevention and resolution.
- The effect of other institutional attributes on adaptation involves trade-offs and depends on the interplay of institutional with biophysical and socio-economic variables, e.g. leadership; national top-down-guidance.
- These models should be understood as diagnostic tools. Testing them in a deliberately selected study design is the natural next step.

- Modelling adaptation:



- Bounded rationality framework: move from *descriptive catalogues* of adaptation barriers & drivers to *explanations* of adaptation.
- Increase analytical rigour; Systematic development of adaptation theories.
- Integrate multiple dimensions of success of adaptation.



Thank you for your attention!

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