
Junior Research Group – Regional Adaptation to Global Change – RegAWa

Political climate adaptation decisions in Germany from an economic perspective

shortfalls and possible applications for decision support systems

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CIRCLE-2 *Adaptation Frontiers* Conference

Lisbon, March 11th 2014



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Presentation Outline

1. What can be expected of adaptation policy
from an economic perspective?
2. Which instruments have been used in Germany?
3. Decision support methods as magic bullets?
 - What can they support?
 - How to choose the right method?
 - Procedural requirements
 - Required outcomes

What can be expected from adaptation policy?

Objectives and *instruments*

Provision of legal and regulatory framework

- *Property rights (e.g. water for irrigation)*
- *Liability law*
- *Regulatory and coercion rights (e.g. planning law)*
- *Institutions*

Efficiency

Elimination of market failures

- *Direct regulation (e.g. standards, norms, restraints)*
- *Market-based instruments (e.g. fees, taxes, tradable rights, permits)*
- *Public adaptation provision*

Free of political barriers

Rationalisation and monitoring

Distributive justice

- *Compensation and transfers*
- *Assistance and disaster funds*
- *Taxes*
- *Subsidies*

Security of supply

- *Energy regulation*
- *Water regulation*
- *Food regulation*

German adaptation policy – National level

German Adaptation Strategy (DAS) 2008
Cabinet of Germany

Adaptation Action Plan (APA) 2011
Cabinet of Germany & Federal States

- Information and knowledge provision
- Legal and technical framework setting
- Adaptation measures of direct national responsibility
- International responsibility

Progress report on DAS - end of 2014
Cabinet of Germany & Federal States

- Vulnerability analysis
- Indicator system
- Indicator based evaluation report
- APA II: specific time and financing plan

German adaptation policy – regional & local

Regional strategies & action plans of the 16 Federal States (Länder)

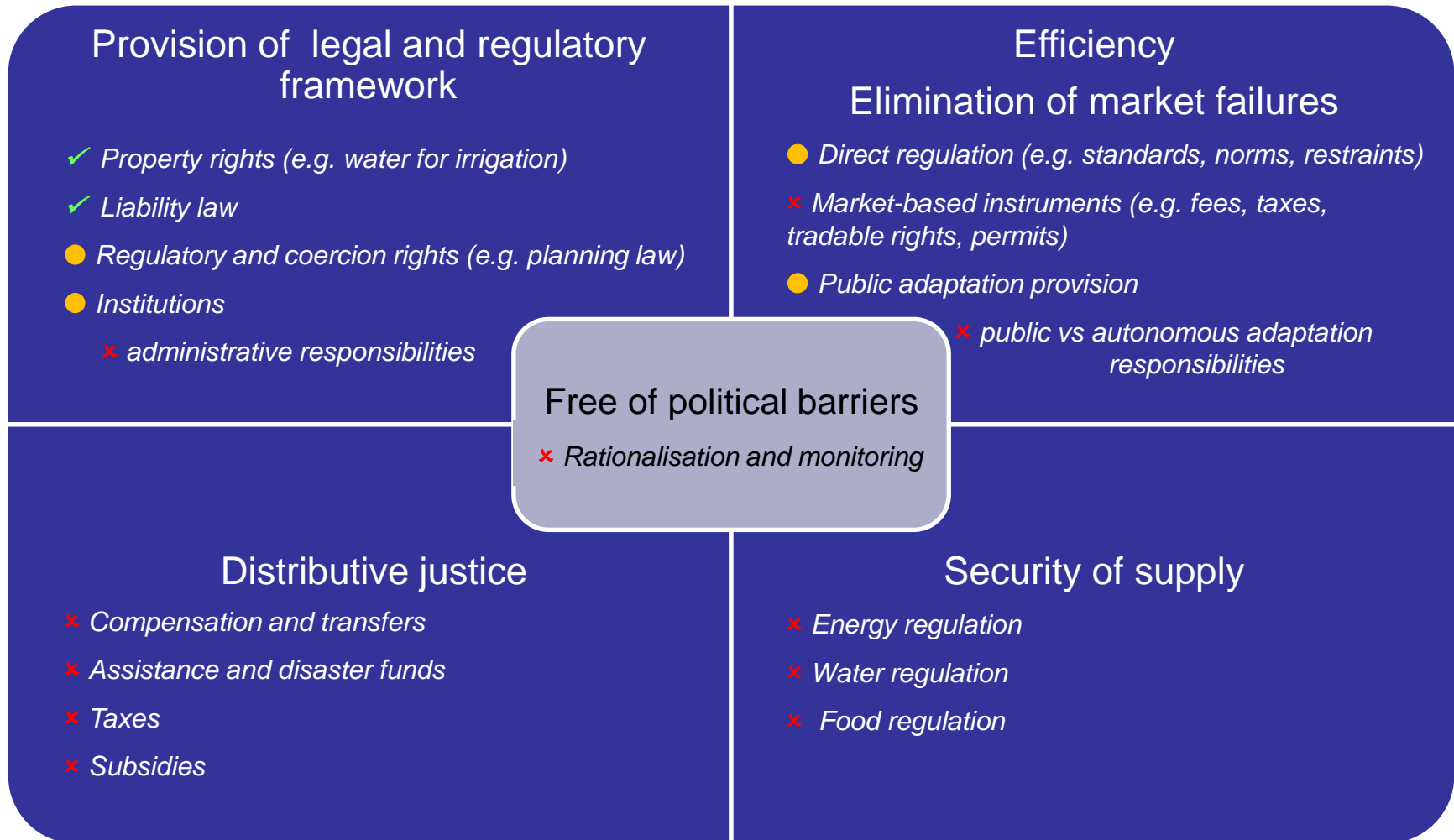
- Various progresses: 2 in preparation
- Various extents: 4 restricted to three or less sectors
- Various forms: research reports, (adopted) options, action plans, climate strategies
- Various commitments: binding, not binding, preparation for decisions

Local strategies & action plans of the municipalities

- Limited capacities and understanding of adaptation concept: especially in smaller municipalities (Mahammadzadeh et al., 2013)
- 13 out of 40 (33%) German urban cities (>50k) have an adaptation plan (Reckien et al., 2014)

What can be expected from adaptation policy?

Which instruments have been used in Germany?



Decision support methods

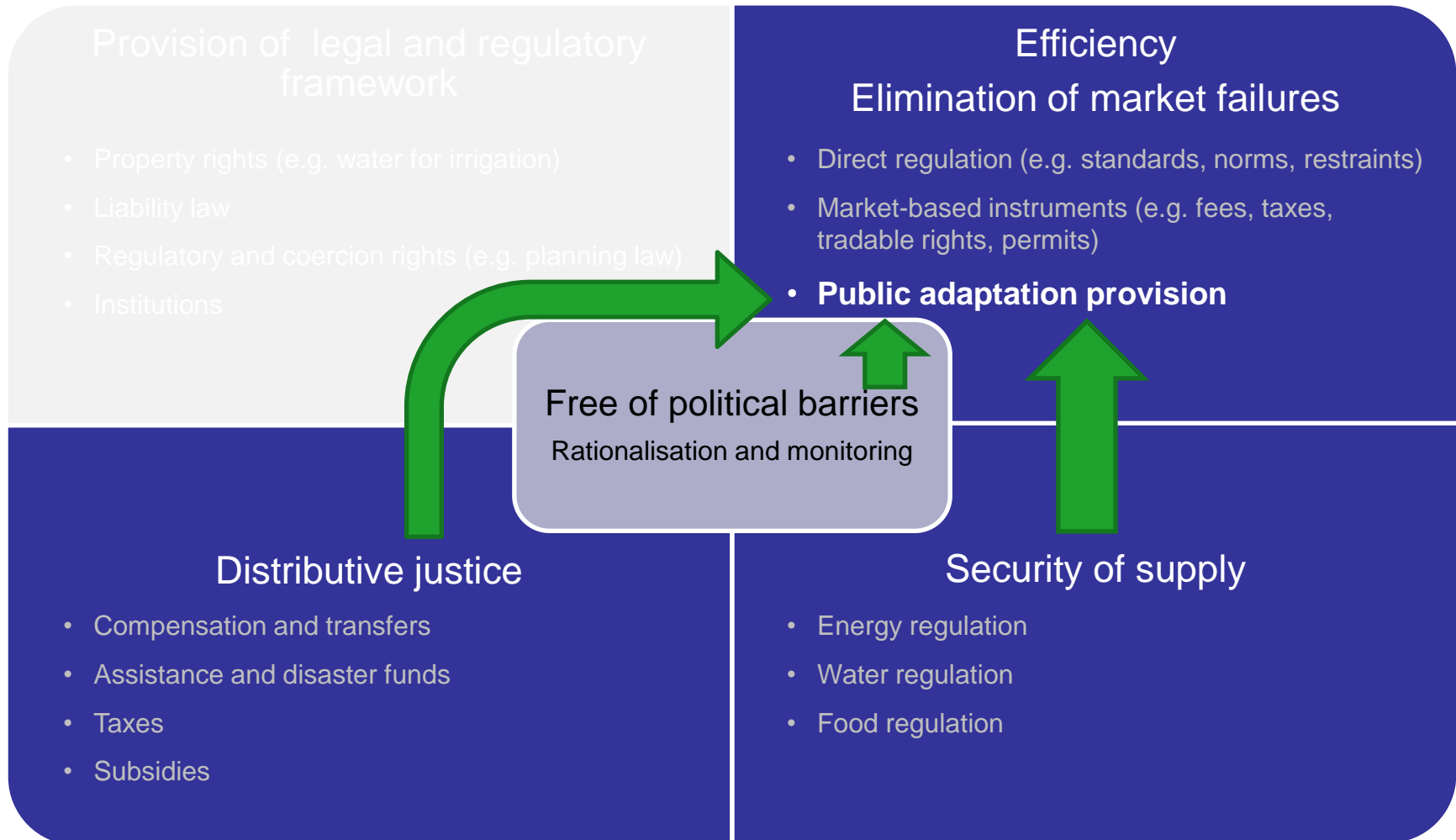
Decisions support methods

- cost-benefit-analysis
- multi-criteria decision analysis (MCDA)
- portfolio analysis
- real options
- robust decision making

- support complex decisions with
 - rational
 - objective
 - quantitative figures
- optimal solution or ranking

Decision support methods

What can they support?



How to choose a method?

Procedural requirements

- Procedural fairness
 - Interactional fairness
 - Comprehensibility
 - Completeness
 - Costs
 - Benefits
 - Distributive fairness of payoffs
 - Robustness of measures
 - Informational flexibility
 - Applicability under uncertainty
- } Acceptance
of third-party decisions
- } Optimality
- } Applicability

How to choose a method?

Required outcomes

- Prioritisation (ranking)
- Rationalisation
- Monitoring

Concluding remarks

- *justified* public interventions need to be defined
- decision support for project-based public adaptation
- demands on the method's abilities are very high

Thank you for your attention!

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