



# Acceptance of New Policy Measures

## Evidence from Climate Adaptation and Mitigation

Karin Ingold

Institute of Political Science

Oeschger Centre for Climate Change Research

University of Bern

Environmental Social Sciences, Eawag, Dübendorf

# What is Policy Analysis?

- > It is the field in political science that does **not** deal with
  - Elections and electoral behavior
  - Social movements
  - Political systems and institutions
  - Democracy studies
  - Political philosophy and theory
  - Policy advice

# What is Policy Analysis?

- It is the field in political science that deals with
  - The question how social (and environmental) problems get on the political agenda
  - What policy solutions are produced and how processes (politics) and institutions (polity) impact outputs (policy)
  - It is about the **content and design** of policy making and implementation and the impact **policy instruments and measures** have on target groups and affected actors

# Policy Analysis and Environmental Governance – the PEGO Team

*u<sup>b</sup>*

<sup>b</sup>  
UNIVERSITÄT  
BERN

OESCHGER CENTRE  
CLIMATE CHANGE RESEARCH



# Why the Environment?

- > Environmental problems often ask for an immediate action
- > but also a long term perspective
- Both components constitute a challenge for the political system
- > Current environmental problems are complex
- > Global drivers but local impacts
- How to integrate actors from the international to the local scale?
- And why does the local scale matter?

# The beauty of Swiss federalism

- > Subsidiarity principle
  - Water supply?
  - Flood prevention?
- > Direct democracy and citizens as the sovereign
  - Their vote counts
- > Ease in implementation
  - Accepted instruments are important for reaching defined targets

# Acceptance

- > Acceptance studies: numerous in new climate and energy policies; transitions (Borras & Edler 2015; Tabi & Wüstenhagen 2015; Wüstenhagen et al. 2007)
- > But a passive concept; value action gap
- > Difference between acceptance, action, opposition and support (Batel et al. 2013)
- > Procedural aspects of political decision-making (Knill & Tosun 2012)
- > Survey studies

# Three illustrations

- > Acceptance as
  - Pre-condition for policy success
  - Understanding voter behaviour
  - Bringing policy studies and behavioral politics together
  - Ease in implementation
  
- > Flood prevention in the canton of Solothurn (MA thesis by A. Glaus)
- > Flood prevention between Thun and Bern (SNF funded Sinergia project; PhD thesis by A. Glaus, ongoing)
- > Alternative energy promotion (SNF funded NRP71 project, PhD thesis by L. Kammermann, ongoing)

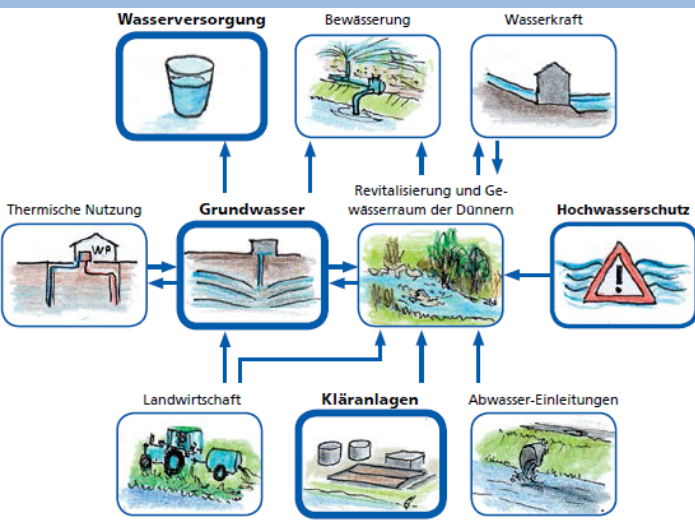
→ Elite surveys and citizens/household questionnaire



# ILLUSTRATIONS

# 1. IWRM and flood prevention in Solothurn

- > Context: «Integrale Wasserwirtschaft im Einzugsgebiet der Dünnern»
  - Flood prevention going hand in hand with river restoration
  - Other sectors involved
  - Research question: what impacts the acceptance of new, and cross-sectoral policy instruments ?
  - Survey: 95 actors, 75% response rate



Quelle (links): Wasserkommission Einzugsgebiet Dünner (2014)

Quelle (rechts):  
[www.panoramio.com](http://www.panoramio.com)



# Policy Instruments or Measures

(Output, Policy, DV)

## Policy Instruments

- > **Sermons:** Persuasive instruments
  - Information, labels
  - Voluntary measures
- > **Carrots 1:** Infrastructure
  - Positive incentives (Service)
  - Negative incentives (Barriers)
- > **Carrots 2:** Financial incentives
  - Positive economic incentives
  - Negative economic incentives
- > **Sticks:** Regulative instruments
  - Regulation
  - Bans

## Coerciveness

Low



High

# Results and first conclusions

- > Survey study and multiple regression analysis
- > What impacted actors acceptance of **cross-sectoral policy instruments**
  - Information by decision-makers
  - Being affected by the problem/issue
  - Negative: experiences with other integrated projects and measures

## 2. Flood prevention between Thun and Bern

### Aims

- Bringing problem perception and policy preferences together

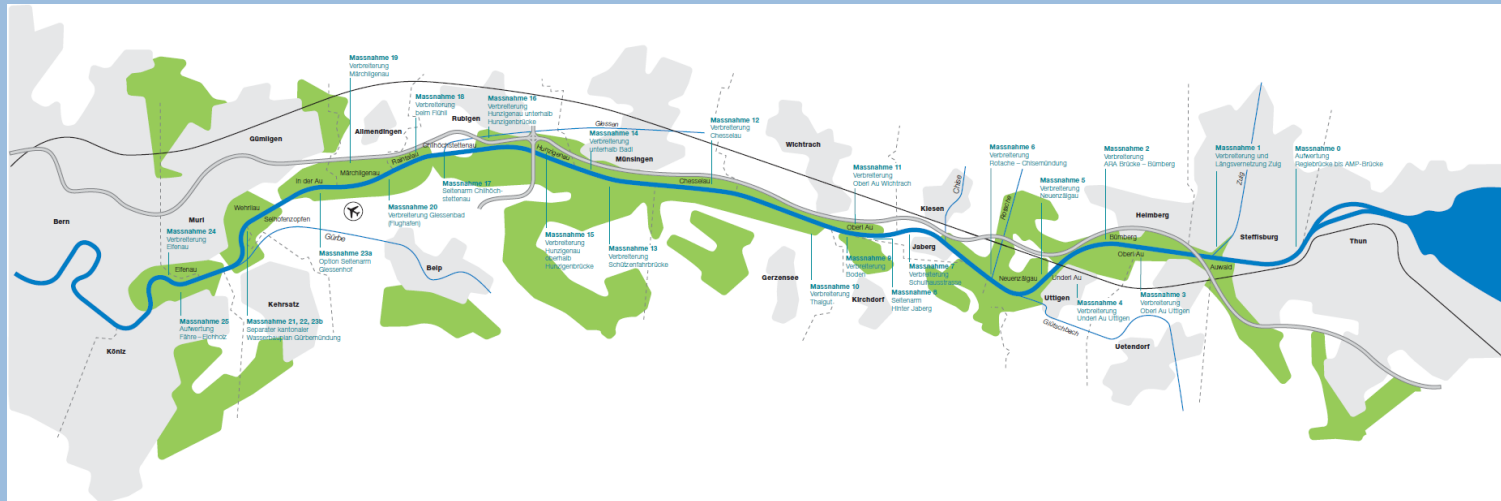


Figure 1 Catchment area


Source: Bericht zur Mitwirkung, S. 52, [www.aarewasser.ch](http://www.aarewasser.ch)

# Empirical Analysis: Survey

- > Data collection: December 2016 – February 2017
  - Questionnaire (80 actors; 80% response rate)
  - Expert interviews with municipal actors

**Befragung zum Hochwasserschutz an der Aare  
in der Region zwischen Thun und Bern**

Anik Glaus  
Doktorandin  
Institut für Politikwissenschaft &  
Oeschger-Zentrum für Klimaforschung  
Universität Bern



Institut für Politikwissenschaft, Universität Bern, Fabrikstrasse 8, 3012 Bern  
anik.glaus@pww.unibe.ch  
Telefon: 031 631 63 34 / 079 589 94 17  
Projektleitung: Prof. Dr. Karin Ingold

Figure 2 Titlepage questionnaire

**D. Positionen Ihrer Organisation im Bereich Hochwasserschutz**

13. Nachfolgend finden Sie eine Liste mit verschiedenen Zielen im Bereich Hochwasserschutz, die im Rahmen des Projekts «Nachhaltiger Hochwasserschutz Aare Thun–Bern» erreicht werden sollen.  
Wie **wichtig** sind diese Ziele für Ihre Organisation?

Ziele im Bereich Hochwasserschutz	Für meine Organisation ist dieses Ziel...			
	sehr wichtig	eher wichtig	eher nicht wichtig	gar nicht wichtig
Wirksamer und langfristiger Hochwasserschutz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schaffen ökologischer Entwicklungsmöglichkeiten für das Gewässersystem Aare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Im Gleichgewicht stehender Geschiebephaushalt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Langfristige Sicherung der Grundwasserreserven	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Erhaltung und Aufwertung des ökologischen Potentials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Erhaltung und Aufwertung von attraktiven Naherholungsgebieten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Präventive Massnahmen zur Vorbeugung von Hochwassergefahren	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. In dieser Frage geht es um Aussagen zu möglichen Trends und Entwicklungen im Bereich des Hochwasserschutzes an der Aare in der Region zwischen Thun und Bern.  
Bitte geben Sie den **Zustimmungsgrad** Ihrer Organisation zu den folgenden Aussagen an.

Entwicklungen im Bereich Hochwasserschutz	Meine Organisation...			
	stimmt dem voll und ganz zu	stimmt dem mehrheitlich zu	lehnt dies mehrheitlich ab	lehnt dies voll und ganz ab
Die Anzahl von Hochwasserereignissen in der Region Aare Thun–Bern hat in den letzten 20 Jahren zugenommen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Das Ausmass (Auflösungsmenge) von Hochwasserereignissen in der Region Aare Thun–Bern hat in den letzten 20 Jahren zugenommen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die Schäden, die durch Hochwasserereignisse entstehen, sind in der Region Aare Thun–Bern in den letzten 20 Jahren gestiegen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mit den heutigen Schutzmassnahmen (Ende 2016) in der Region Aare Thun–Bern ist die Gefahr für Schäden bei Hochwasserereignissen klein.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die Bevölkerung in der Region Aare Thun–Bern ist gut informiert über regionale Hochwassergefahren und gefährdete Gebiete.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Auf mögliche weitere Hochwasserereignisse in der Region Aare Thun–Bern ist die Bevölkerung ungenügend vorbereitet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die Gefahr möglicher weiterer Hochwasserereignisse in der Region Aare Thun–Bern verursacht Verunsicherung in der Bevölkerung.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organisationen im Bereich Hochwasserschutz in der Region Aare Thun–Bern müssen in Zukunft enger zusammenarbeiten, um Unsicherheiten bezüglich Hochwassergefahren zu reduzieren.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Die unbekannten Schadenauswirkungen möglicher weiterer Hochwasser in der Region Aare Thun–Bern führen dazu, dass kaum präventive Massnahmen ergriffen werden.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organisationen im Bereich Hochwasserschutz in der Region Aare Thun–Bern müssen von den zuständigen Fachstellen häufiger und besser über Hochwassergefahren informiert werden.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 3 Example questions

# First Results: Problem Perception

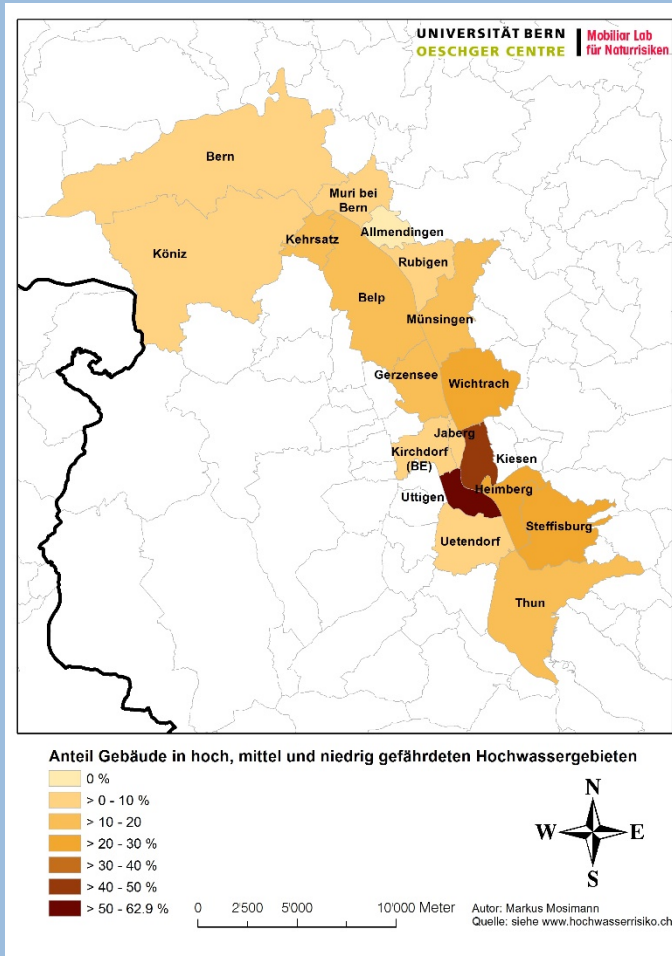


Figure 3 Flood exposition of buildings in local municipalities  
Source: Markus Mosimann, MobiLab

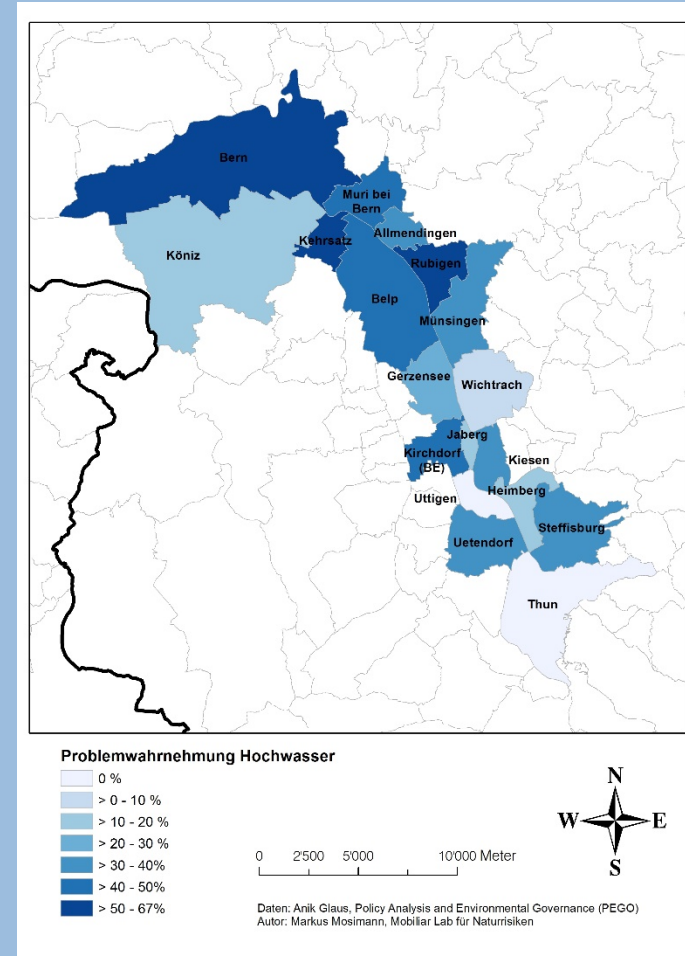




Figure 4 Problem perception of flood prevention of local municipalities  
Source: Survey Anik Glaus



# Data: Policy Preferences

- > Policy preferences for flood prevention measures
- Evaluating preference between two opposing policy measures
  - 4 categories of policy instruments:
    - Infrastructure/construction  hard measures
    - Spatial planning  alternative measures
    - Ecological compensation
    - Information/Research

Massnahmen						
<b>Bauliche Massnahmen</b> sind im Bereich Hochwasserschutz an der Aare die geeigneteren Massnahmen als raumplanerische Massnahmen.	<input type="checkbox"/> 2 stimme voll und ganz zu	<input type="checkbox"/> 1 stimme eher zu	<input type="checkbox"/> 1 stimme eher zu	<input type="checkbox"/> 2 stimme voll und ganz zu	<b>Raumplanerische Massnahmen</b> sind im Bereich Hochwasserschutz an der Aare die geeigneteren Massnahmen als bauliche Massnahmen.	<input type="checkbox"/> beides unwichtig
Der <b>sachgerechte Unterhalt</b> der Aare (z.B. Erhalt der Abflusskapazität und der Schutzbauten) macht neue bauliche Massnahmen hinfällig.	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 2	Auf neue <b>bauliche Massnahmen</b> kann trotz sachgerechtem Unterhalt der Aare nicht verzichtet werden.	<input type="checkbox"/> beides unwichtig

Figure 5 Question about policy preferences for flood prevention measures



# First Results: Policy Preferences

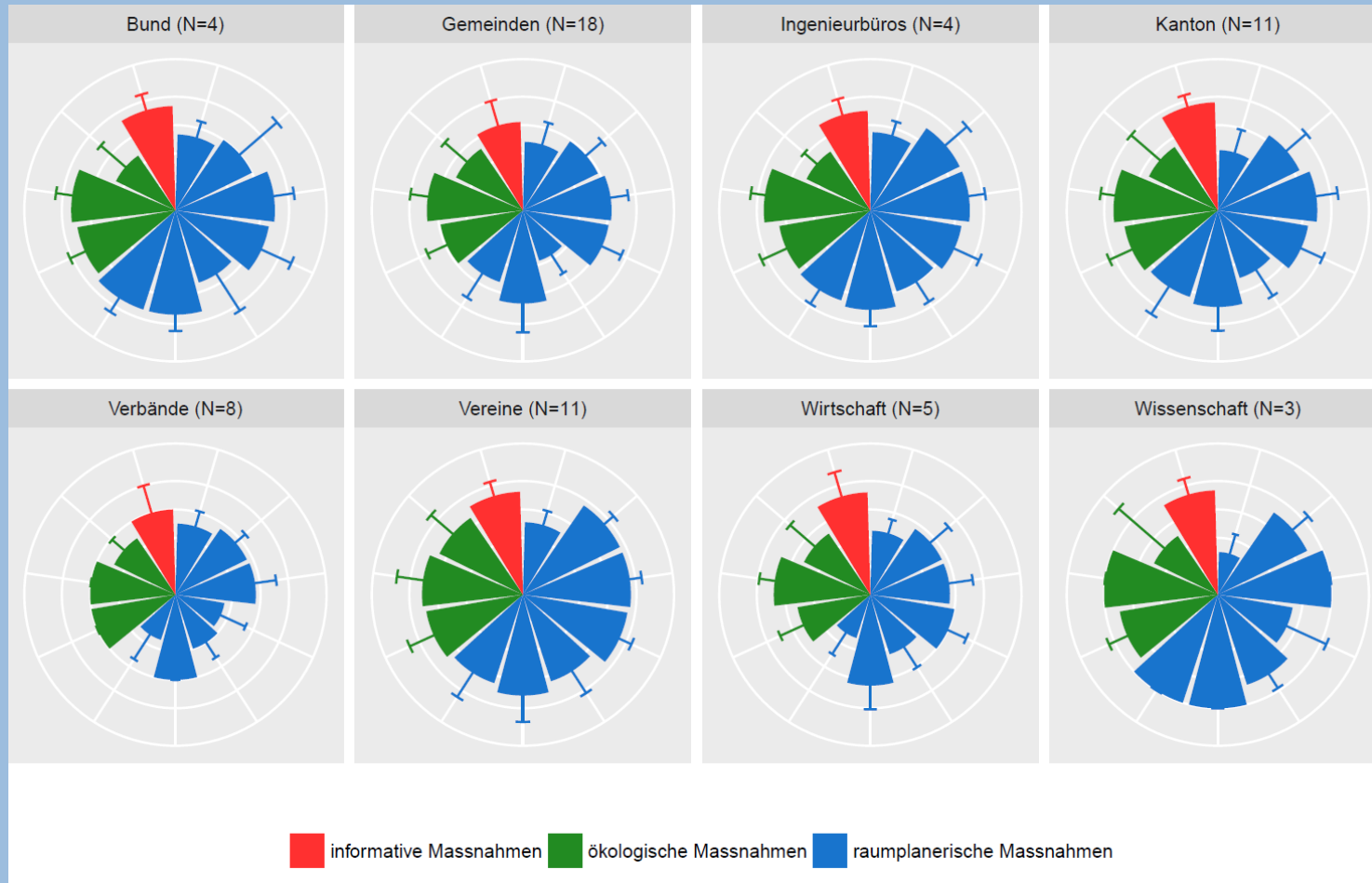


Figure 6 Policy preferences for flood prevention measures by actor groups

# Intermediary conclusions about Swiss flood prevention

- > Introducing new policies and cross-sectoral policy initiatives is difficult
- > The acceptance of new policy measures seems dependent upon the problem perception and affectedness of actors
- > What about citizens in contrast to the political elite?

# What about climate change mitigation and the promotion of renewable energies?

- > NIMBY: not in my backyard
- > Too simplistic!
- > Complex new arrangements:
  - Replacing the conventional consumer-producer relationships with multipronged relationships (Wolsink 2012).
  - Prosumer
  - These new relationships not supported by existing institutions, infrastructure, common knowledge etc.
  - Larger legitimacy context matters (Markard et al. 2016; Dewald and Truffer 2012)

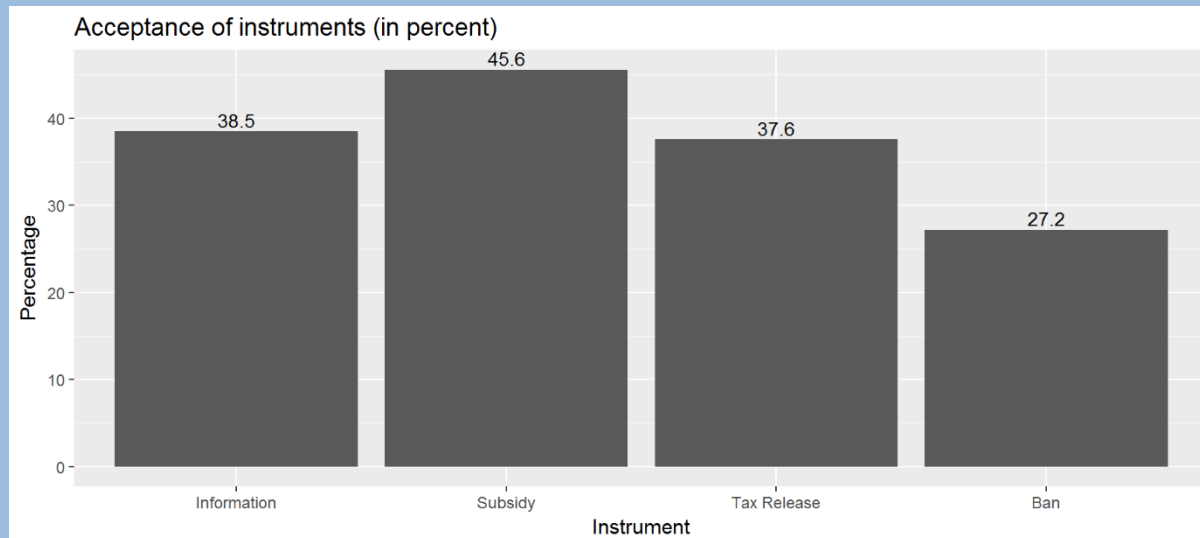
# The acceptance of new instruments in policy mix situations - the application of a new framework focusing on path-dependency, legitimacy and citizens' roles



# Household survey

- > 8'287 answers from a representative sample of the Swiss permanent resident population (i.e., including non-citizens) provided by the Federal Office of Statistics
- > The response rate after three invites was at 41.7%.
  - The demographic and structural composition of the final sample corresponds quite closely to the Swiss resident population
  - This is particularly true with respect to gender, civic status, and education.
  - Foreigners living in Switzerland as well as citizens older than 75 years had a lower response rate, which is likely caused by the exclusive use of an online survey.

# Overall policy preferences I



*Note:* Share of respondents (in %) indicating that the canton should use the respective instrument to promote renewable energy.

# Overall policy preferences II

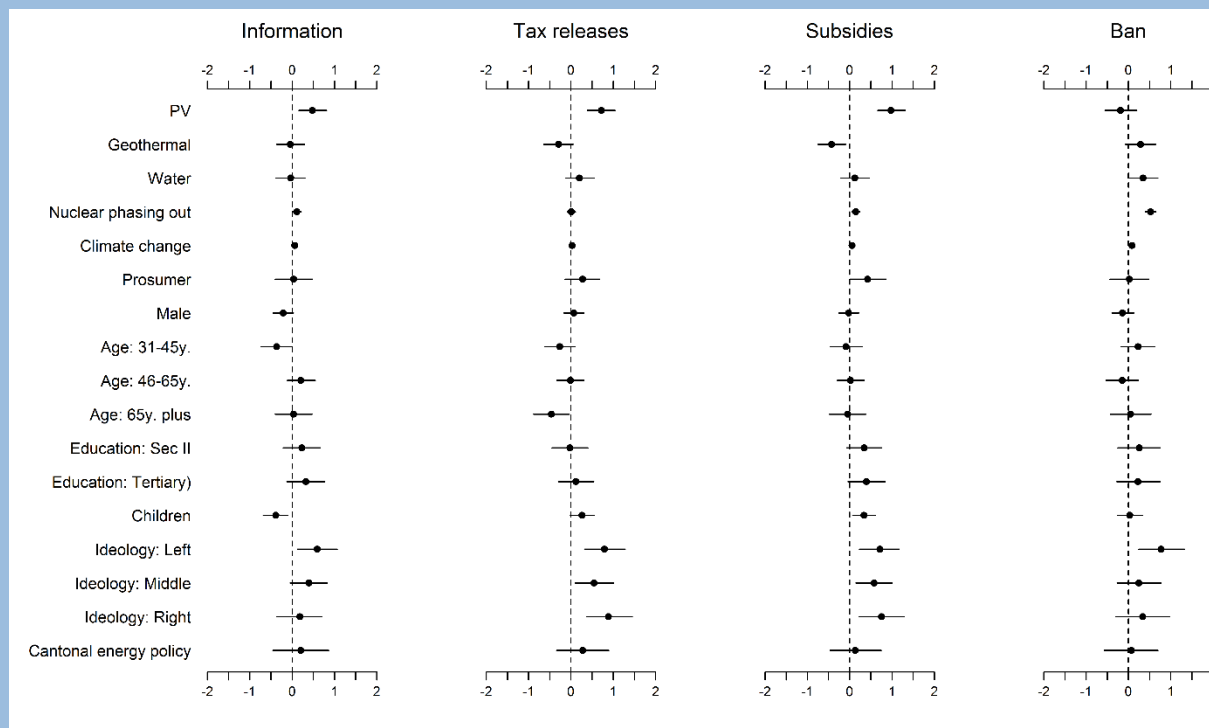
**Table 1: Correlations between policy instruments**

	Information	Subsidy	Tax release	Ban
Information	1			
Subsidy	0.18	1		
Tax release	0.15	0.30	1	
Ban	0.12	0.04	0.02	1

Note: Correlations between individual responses per instrument. Grey = p-value is below 0.05 (significant at the 95% level).

# Drivers for new instruments

Figure 4: Cantonal policy context and policy mix preferences



Note: Hierarchical, logistic multi-response, Bayesian estimation using MCMCglmm in R. The mean and the 90% credible interval of the log odds are presented.



# Conclusion

- > Results show that there is no general acceptance trend observable from less to more coercive policy instruments.
- > But overall reluctance to new or cross-sectoral policy instruments
- > Does problem perception and affectedness also matter at the citizens' level?
  - Yes for pro-summers
  - Yes for left-wing supporters
  - Yes for those being strongly in favor of CC mitigation and nuclear phasing out

Thank you for your attention!

[karin.ingold@ipw.unibe.ch](mailto:karin.ingold@ipw.unibe.ch)