Adaptation Futures
10 May 2016
Rotterdam, Netherlands

Implementing climate change adaptation policies: problems of fit and response strategies

Marco Pütz
Swiss Federal Institute for Forest, Snow and Landscape Research WSL
Birmensdorf, Switzerland

Goals

1. Show that spatial, temporal, and institutional **problems of fit** are **inherent to multilevel environmental governance** and also characterize climate change adaptation (in Switzerland).
2. Propose analytical categories of **rescaling** as a **response to problems of fit** and as a strategy **to reconcile bottom-up and top-down tensions** in multilevel governance.
3. Apply **rescaling** to illustrate current **climate change adaptation policy-making (**in Switzerland).
4. Conclude with **benefits and shortcomings** of climate change adaptation policy-making (in Switzerland) and a call for further empirical **research.**

1 | PROBLEMS OF FIT

Assumption: problems of fit are a barrier for adaptation

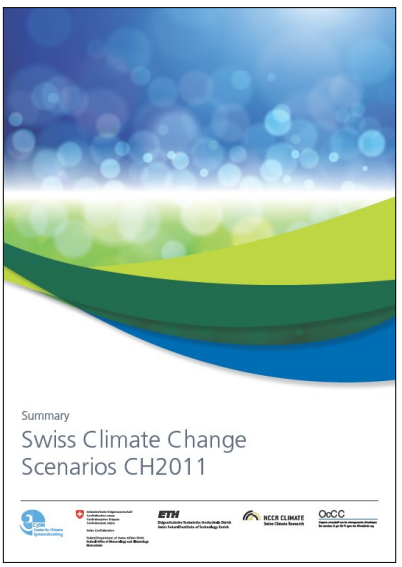
Problems of fit (temporal, spatial, functional)

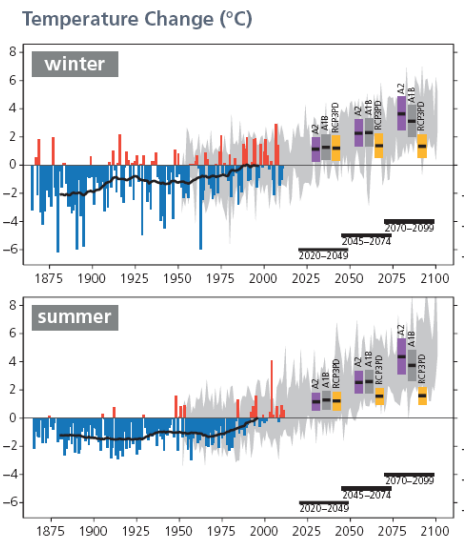
- refer to the mismatch between the geographical extent of an environmental issue and the territorial scope of institutions affecting its governance
- the idea is to create institutional arrangements which are tailored to fit to the geography of the environmental issue.
- Dealing with problems of fit and transforming institutional arrangements involves rescaling. Rescaling implies modifications of the type and number of actors involved, their perception of environmental issues, transformations of power relations, and contextual changes.

(Folke et al. 1998, 2007, Galaz et al. 2008, Moss 2012)

3

1 | PROBLEMS OF FIT: TEMPORAL MISFIT





4

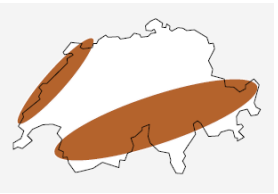
1 | PROBLEMS OF FIT: SPATIAL MISFIT

Spatialities of climate change adaptation (FOEN 2012)

Greater heat stress in cities

Increasing levels of summer drought

Greater risk of flooding; Change in habitats, species composition and landscapes



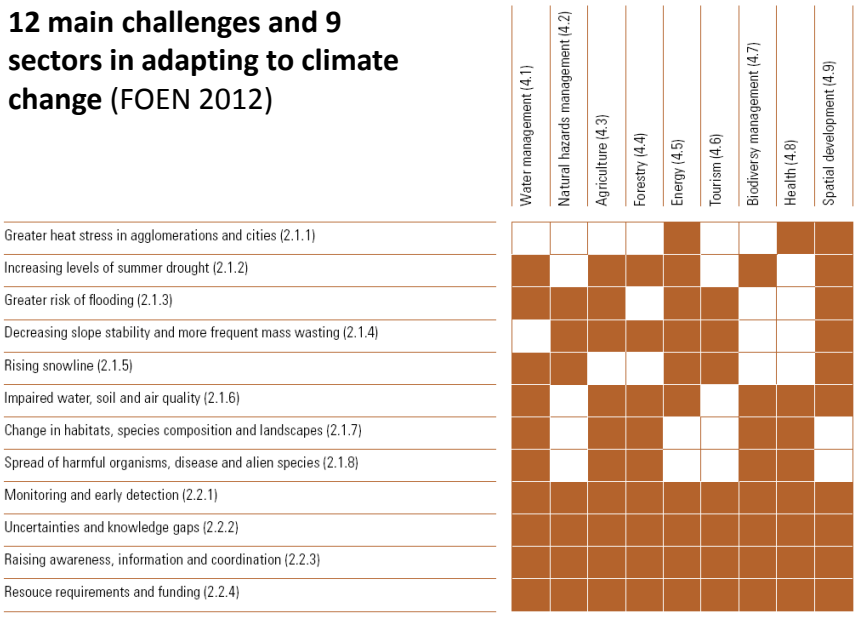
Rising snowline; Decreasing slop stability

Spread of harmful organisms, disease and alien species

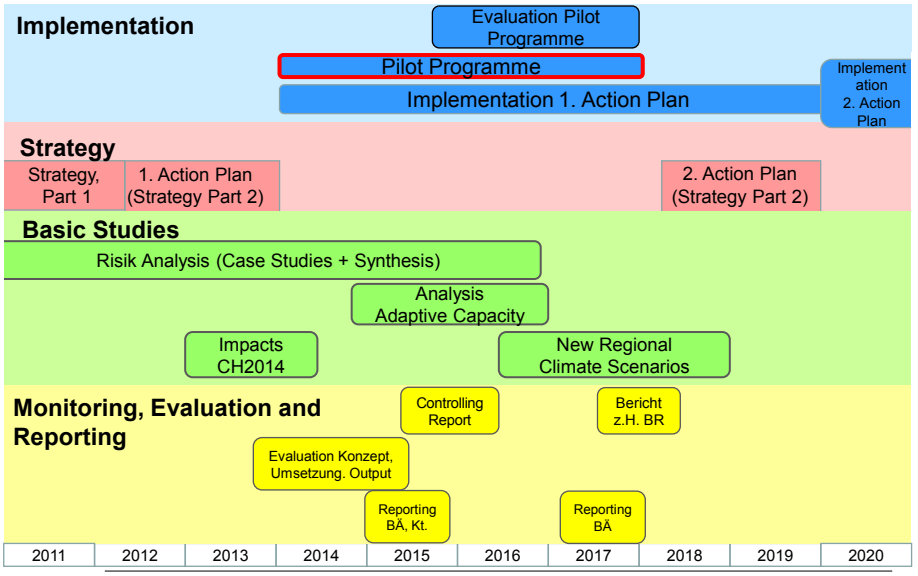
Source: FOEN 2012, 9ff.

1 | PROBLEMS OF FIT: FUNCTIONAL MISFIT

12 main challenges and 9 sectors in adapting to climate change (FOEN 2012)

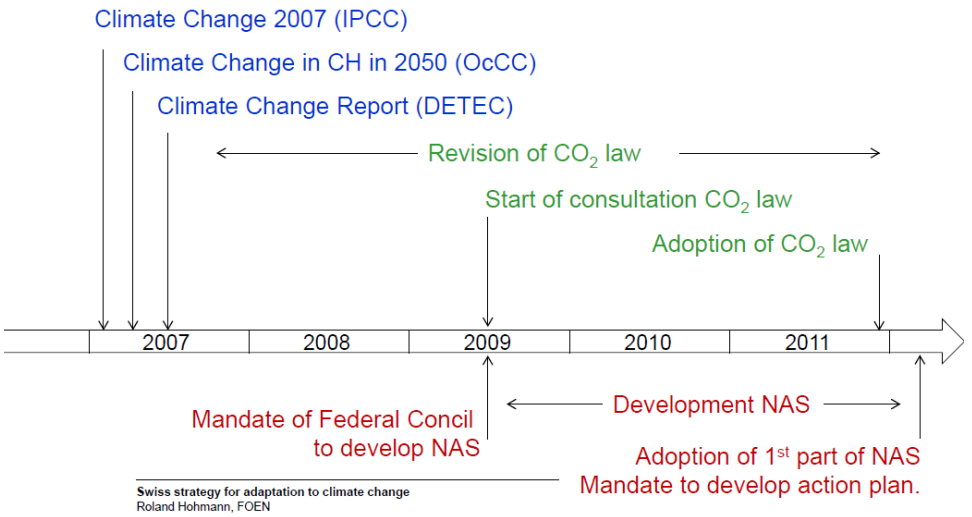


National Adaptation Planning in Switzerland



Anpassung an den Klimawandel in der Schweiz
R. Hohmann, C. Gross, P. Köllner, T. Probst, M. Zoller
7

Embedding of NAS development



Swiss strategy for adaptation to climate change
Roland Hohmann, FOEN

2 | (RE-)SCALING

Dimensions of rescaling (Andonova/Mitchell 2010)

1 Rescaling transnational coordination

2 Rescaling intergovernmental coordination

3 Rescaling across issue areas

Proposing an additional dimension of rescaling

4 Rescaling science-policy interaction

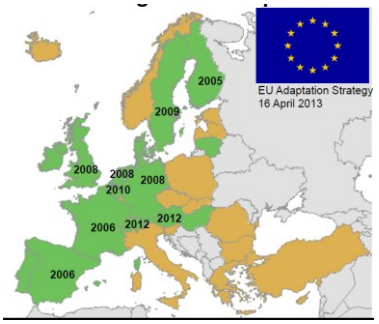
> Analytical categories to identify (re-)scaling practices

9

3 | (RE-)SCALING CLIMATE CHANGE ADAPTATION

1 (Re-)scaling transnational coordination

- Alpine Convention's «Climate Action Plan»
- EU Strategy of the Alpine Region (EUSALP)
- Alpine Space Programme (European Territorial Cooperation, former Interreg), incl. project cluster on climate change issues
- Transnational research initiatives (ICAS, MRI, GLORIA, etc.)
- Collaboration on EEA reports



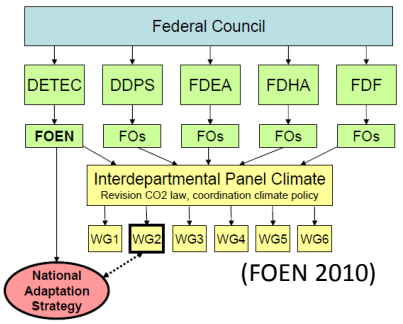
Before:
- only national coordination;
- only transnational projects and pilot activities

10

3 | (RE-)SCALING CLIMATE CHANGE ADAPTATION

2 (Re-)scaling intergovernmental coordination

- Intergovernmental Commitee on Climate (IDA Klima)
- Revised CO2 Act (1.3.2013), incl. Art. 8 'Coordination of adaptation measures'
- CO2 Regulation, incl. Art. 15: Reporting responsibilities have been allocated to cantons, and are recognised as a legal duty under the CO2 Act
- Intensified consultation and information



(FOEN 2010)

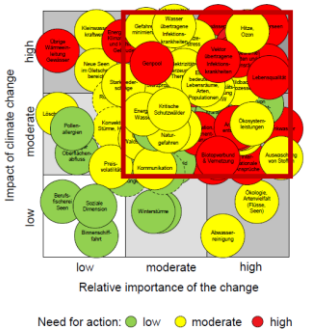
Before:
- informal coordination, focused on information exchange
- no IDA Klima
- no climate section at FOEN

11

3 | (RE-)SCALING CLIMATE CHANGE ADAPTATION

3 (Re-)scaling across issue areas

- NAS principles: sustainability, complimentarity to climate mitigation, partnership
- 9 sectoral sub-strategies
- Climate mainstreaming into other federal strategies
- 50 interfaces, 12 cross-sectoral challenges



Before:
- less issue areas,
- unknown interfaces,
- cross-sectoral challenges not identified

12

3 | (RE-)SCALING CLIMATE CHANGE ADAPTATION

4 (Re-)scaling science-policy interaction

- OCCC: Advisory Board on Climate Change
- ProClim: Forum for Climate and Global Change, Swiss Academy of Sciences
- Joint Information Platform for Natural Hazards GIN
- Pilot programme to implement NAS in regions
- Studies commissioned by FOEN and/or ProClim (more evaluation, less analysis)
  - Assessment of CC impacts
  - Assessment of climate-related risks and opportunities
  - Assessment of adaptive capacities
  - Assessing the effectiveness of adaptation in 2017
  - Monitoring and evaluation scheme

Before:
- less interaction,
- more politics oriented, less-science based,
- less applied research

13

4 | CONCLUSIONS

Benefits

- **CO2 legislation (Act + Regulation)** rules coordination and reporting regarding adaptation planning and implementation
- **Evidence-based** (natural sciences driven), **long-term planning** of climate adaptation policy development
- **Cross-sectoral policy making**, especially horizontal policy integration (climate mainstreaming), NAS is connected to other federal strategies
- **Stakeholders** are increasingsly working across scales

Shortcomings

- Rather **slow** process
- Not really top-down, but too limited to federal administration, **barely vertical policy integration** (down scaling)
- 63 adaptation measures, but 54 sectoral measures
- Dominated by **some sectors** using new opportunities to advance their own interests (e.g. agriculture, tourism, energy)

14

4 | CONCLUSIONS

Further research

- How to create embeddedness, nestedness of adaptation?
- How do policies and practices of climate adaptation co-evolve and influence each other?
- How to conceptualize scalar action beyond the binary distinction of 'strategy' and 'practice' (Hüesker/Moss 2015)?
- How to assess the impact of multi-scalar action on power relations?
- What represents a good practice of (re-)scaling?
- Does the Swiss case study really illustrate (re-)scaling? Or is it rather an example of Swiss style policy making?
- Is Swiss federalism part of the problem or the solution?

15

THANK YOU

Marco Pütz
Swiss Federal Research Institute WSL
Zuercherstrasse 111
CH-8903 Birmensdorf
Switzerland
marco.puetz@wsl.ch

16