

Aligning risks and coping appraisals to kick off local climate action

Radinger-Peer, Verena; Seebauer, Sebastian; Mottl, Karin; Fischer, Cornelia; Gugerell, Katharina; Ellmer, Hans-Peter; Wachter-Kapfinger, Magdalena; Uhlhorn, Birthe; Schauppenlehner-Kloyber, Elisabeth; Wirgler, Sonja;

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Research questions

How do local actors in climate active and inactive municipalities differ with regard to their risk and coping appraisal?

How can a shared understanding of climate risk and coping potential increase the uptake and effectiveness of climate policy instruments and local climate action?

Risk appraisal and coping of local actors

Climate action, inaction, maladaptation

Protection Motivation
Theory (PMT)



case study approach
local governance capacity

Governance conditions (e.g. institutions, resources)

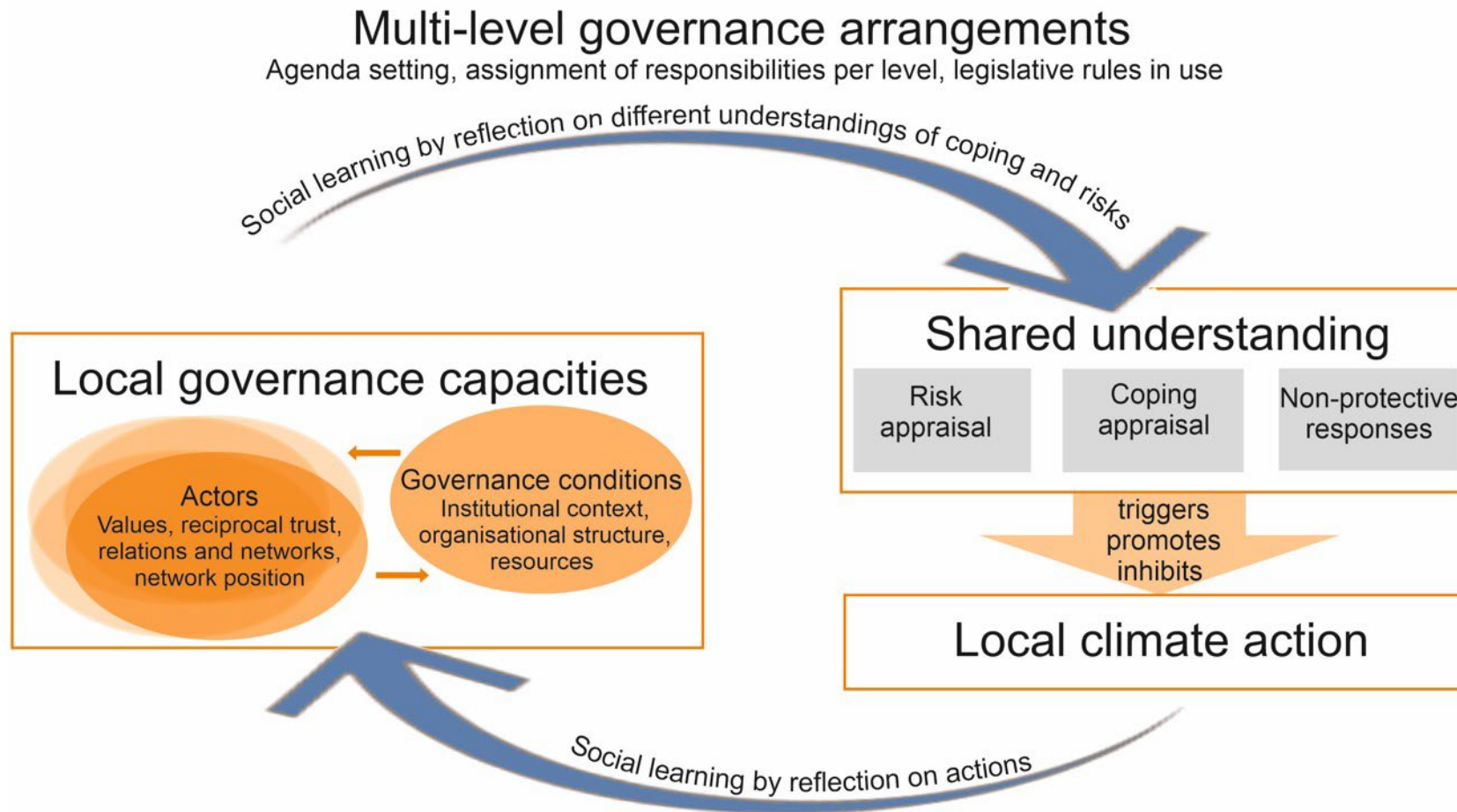
Actors (e.g. values, trust, networks)

Governance capacity



climate change adaptation
support for biodiversity friendly
measures

Framework – governance capacity for local climate action



Research design

- Selection of two most-similar case study regions (Gerring 2007): Region Römerland Carnuntum and Region Weinviertel (both Lower Austria)
- Selection of 6 municipalities:
 - Size between 1,500 and 4,000 inhabitants
 - Affected by similar climate change-related natural hazards (drought, heat, floods)

--> project focus is on the natural hazards **heat** and **drought**

BUT

- Differences in climate related activities:
 - **Frontrunners:** Lasee (Weinviertel) and Ebergassing (Römerland Carnuntum)
 - **Potential municipalities:**
 - **Obersiebenbrunn (Weinviertel)**
 - **Gramatneusiedl (Römerland Carnuntum)**
 - **Engelhartstetten (Weinviertel)**
 - **Moosbrunn (Römerland Carnuntum)**

Control group

Municipality with experimental participatory intervention



Climate action - frontrunner municipalities



Methods	<ul style="list-style-type: none">• Precautionary check for natural hazards (Vorsorgecheck Naturgefahren im Klimawandel) together with the eNu• Historical analysis of the minutes of the municipal council and municipal newspaper• 24 interviews with selected stakeholders from local government, business, civil society actors, agriculture
Results	<p>Shared understanding:</p> <ul style="list-style-type: none">• Perception of climate change induced changes relates primarily to own observation• Awareness regarding the increase of heat and drought• Local policy makers see themselves as responsible for measures in CCA and CCM in their local sphere of influence• Decision-makers undertook numerous CCA and CCM activities in the last ten years, e.g. participation in relevant networks (e.g. Klimabündnis, e5, EE Gemeinschaft NÖ, Bodenbündnis Mitgliedgemeinde) <p>Governance capacities:</p> <ul style="list-style-type: none">• Self-image as a climate-active municipality is a key driver for climate action• Decision-makers are well informed and have clear priorities in dealing with natural hazards

Climate action - potential municipalities



Methods	<ul style="list-style-type: none">• Precautionary check for natural hazards (Vorsorgecheck Naturgefahren im Klimawandel) together with the eNu in Engelhartstetten and Moosbrunn• Historical analysis of the minutes of the municipal council and municipal newspaper• 12+9 interviews with selected stakeholders from local government, business, civil society actors, agriculture• 2 co-creation workshops per municipality as experimental intervention to build a shared understanding and map courses of action
Results	<p>Shared understanding</p> <ul style="list-style-type: none">• Personal awareness regarding heat and drought but no perception as a problem yet; other natural hazards such as floods as well as storms and associated soil erosions are seen as more pressing;• Perception of climate change induced changes relates primarily to own observation• Contradictory picture regarding adequate measures related to CCA <p>Governance capacity</p> <ul style="list-style-type: none">• Weak social cohesion and networks within the community as barrier to forming actor coalitions• Low importance of climate active self-image "Because we really just have other concerns."• Despite convictions on the subject of environmental protection, powerlessness, resignation and helplessness prevail

Difficulties encountered during the project

- Due to the low awareness for heat and drought in the potential municipalities it was **difficult to identify enough interview partners**
- Mayors are strong agenda setters: balanced knowledge integration during the co-creation workshop was challenging
- **Reluctance** in the potential municipalities to participate in **the tailor-made municipality specific co-creation workshops** --> active individuals have been identified --> reorientation of the project focus on change agents?



Overarching findings

- Heat and drought are **gradual** processes and therefore not recognized as a problem yet
- **Shared risk appraisal** is a necessary but **not sufficient** component of shared understanding
- Mayor has a central role as **coordinator**, linking different actor groups (--> social capital)
- **Trust and social networks** within the community are critical for municipal governance capacities
- eNu (Energy and Environment Agency of Lower Austria) links the **local with the federal governance level** and turned out to be an important source of information as well as network builder for municipalities
- In particular during the transdisciplinary discourse on coping opportunities, the **depth of information** provided has to be consciously **aligned** to the pre-knowledge and level of activity of the local actors

Thank you!

Academic outreach

Radinger-Peer, V.; Gugerell, K., Seebauer, S., Wachter, M.: Local Climate Action as result of collective learning and capacity building. Regional Studies Association Conference, 14-16th June 2023, Ljubljana.

Radinger-Peer, V., Seebauer, S., Gugerell, K., Wachter, M. (2023). 'Shared understanding' to kick-off local climate action – a conceptual framework. International Sustainability Transitions Conference, 30 Aug – 1 Sept, 2023, Utrecht.

Papers (in preparation):

Radinger-Peer, V., Seebauer, S., Gugerell, K. A framework for governance capacity building for local climate action. To be submitted to the Journal of Environmental Policy and Planning.

Wachter-Kapfinger, M., Uhlhorn, B., Seebauer, S., Gugerell, K., Schauppenlehner-Kloyber, E., Fischer, C., Radinger-Peer, V. Learning by doing – the evolution of climate governance capacities in municipalities (tentative title).

Lorenz Maringer (started in March 2023). Lokalpolitisch institutionalisierte AkteurInnen und Klimaaktivitäten in kleinen und mittelgroßen Gemeinden in den Regionen Marchfeld, Römerland Carnuntum und Traunviertler Alpenvorland. Master thesis supervised by V. Radinger-Peer and S. Seebauer

Public outreach

Klimawandelanpassung in Gemeinden - geht da (noch) was? Panel discussion at the BOKU-Energiecluster, 17 Oct 2023, Vienna.

Gegen den Klimawandel an einem Strang ziehen – wie können Gemeinden ins Handeln gebracht werden? BOKU Magazin 1 | 2023, p. 48-49.

Reports on the outcomes of the Natural Hazard Check, available for each of the municipalities Ebergassing, Engelhartstetten, Lasee and Moosbrunn.

Fact Sheets

on the results of the stakeholder workshops, available for the municipalities Engelhartstetten and Moosbrunn

Fact sheets on the result of the expert interviews, available for each of

the municipalities Ebergassing, Engelhartstetten, Lasee and Moosbrunn, Gramatneusiedl, Obersiebenbrunn

Podcasts (in preparation): Tino Blondieau (eNu), three additional podcasts foreseen.