

Local Climate Adaptation Governance and Planning: Challenges to Transformation

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1 ABSTRACT

Climate adaptation has so far been a voluntary topic for municipalities (in Germany), in consequence there is a fundamental challenge to establish the topic in everyday municipal life and to create suitable structures.

From sustainability and transformation research as well as from mainstreaming experiences with the topic of climate protection, a variety of insights can already be gained that are important for integrating the topic of climate adaptation in local governments. While there are many findings from research on sustainable development and climate protection, the introduction of a new produces some further challenges regarding the complexity of structures and processes.

In this contribution, it will be argued that there structural, procedural, and contextual barriers to local climate adaptation in governance and planning. Based on this assumption, experiences in transformation towards climate adaptation in a specific local administration will be analyzed and discussed. The case presented is part of the ReWanKa project in Berlin (Reallabore Regenwasser und Klimaanpassung) which focuses on experimenting with administrative structures.

Keywords: Local Governance, Local Planning, Climate Adaptation, Challenges Transformation, Germany

2 MAINSTREAMING CLIMATE ADAPTATION

Natural and anthropogenic climate change are major challenges affecting all global, national and local societies, economies, and individuals in various ways (EEU 2020). Over the last decades, many efforts have been made on the local, national and international levels already. Concepts and goals varied over time, starting with sustainable (local) development in the 1970s, the topic of climate (protection) in the 1980s, and followed by the topic of climate adaptation in the 1990s (Smithers, Smit 1997). This contribution explores the challenges of mainstreaming climate adaptation in local governments.

2.1 State of the Art – Learnings from Research and Practice on sustainable development and climate protection

The first argument of this contribution is that in order to understand the challenges of introducing “climate adaptation” to local governments, a lot can be learned from empirical and practical findings from sustainable development and climate protection activities from different level. In the following, a very short overview of three aspects of transformation will be presented that one keeps coming across in the literature: Complexity, Paradigm Shift, and Place- or Context-Based solutions.

In the literature, it has been acknowledged that comprehensive sustainable development constitutes a multi-level challenge (Geels, Kemp 2012). Furthermore, that it needs to be understood as a long-term and sometimes resource-intensive process (Krellenberg 2016) which has to deal with “highly complex real problems” (Zscheischler/ Rogga/ Weith 2014). In order to deal with such complexity, large parts of the literature postulate that more cross-sectoral and flexible approaches are needed (Clune, Zehnder 2018). It is acknowledged that established silo thinking must be deconstructed (Chu 2016) in order to integrate (new) topics and structures. It is also acknowledged the importance of different forms knowledge as a basis for any successful sustainable development and climate protection (Walter et al. 2007; see also EU 2020).

In addition to acknowledging the complexity, a general shift in paradigms, framings and priorities can be observed: Initially, sustainable development and climate change were being conceived as a mainly environmental problem (Chu 2016) that can be solved with new technical solutions and new legal bindings (Ostrom 2012). But it became obvious that the complexity of the “problem” needs the cooperation and participation of large parts of society (Adger et al. 2013). In consequence, not only internal structures and foci were questioned but different paradigms promoted: This included a general shift from hierarchically organized approaches to participatory, co-creative or even cooperative approaches (Glass, Newig 2019) as well as a shift from the still prevailing approach of reactive to pro-active local governance and planning (Van der Berg 2022).

A third finding is that any approach to effective sustainable development and climate protection must be place- and context-based. In consequence, the concepts must be operationalized in different ways for different places (Elmqvist et al. 2019) in order to have a chance to be implemented successfully. This takes into account that effects of climate change are different in different places as well the finding that an abstract topic such as climate adaptation can be framed and operationalized differently, for example in the contexts of public health and life quality – or exclusivity and vulnerability.

2.2 Implications for Climate Adaptation Governance and Planning

These three characteristics of sustainable development and climate protection embrace complexity, paradigm-shifts and local approaches. But they also highlight “a series of systemic pressures on urban public institutions [among others]” (Chu 2016: 2). Introducing the topic of climate adaptation may underlie similar pressures. First insights are already provided by cities all over the world embracing the topic of climate adaptation in governance and planning (Van der Berg 2022; Araos et al. 2016; EEA 2020).

According to the literature, Climate adaptation is similarly being conceived as a cross-sectoral, complex issue that needs different mindsets, flexible governance as well as context- and place-based solutions (Baker et al. 2012; Van der Berg 2022:18). These findings lead immediately to the question on how to integrate the topic of climate adaptation into existing processes and structures. Or whether it should be prioritized?

The second argument of this contribution is, in consequence, that there are fundamental practical challenges to establish the topic of climate adaptation in municipal governance and planning. This might also explain why local governments are more or less successful in dealing with these challenges. Existing concepts and plans usually stop short before explaining how to practically integrate topics and structures (Van Der Berg 2022:7). The following part of this contribution will explore reasons for such an “uneven uptake”. In order to understand, a simple framework will be applied. The argumentation line of this framework is that local climate adaptation cannot be successful “without addressing structural, procedural, and contextual barriers” (Baker et al. 2012: 127). In a first step, I will illustrate a bit further these three aspects and relate them to what was written in chapter 2.1.

Structural aspects: First of all, there still seems to be a misunderstanding that climate adaptation is a separate topic that should best be dealt with with specific policies, objectives and plans. (institutional ‘silos’). Another misunderstanding is that it is considered an environmental issue (Baker et al. 2012: 134; Van Der Berg 2022: 1). In consequence, suitable organizational structures are required to integrate climate adaptation in the long term (DifU 2015). This would include to truly integrate awareness, capacity and resources for the issue of climate adaptation in administrations (Susskind & Kim 2022). But there are indications, that the topic can be pushed better either by strong leadership (with for example key actors and key events; Haupt, Kern 2020) and/or the formulation of explicit (and legitimate) goals (Um 2018; DifU 2015). But given the complexity of the process, there often is a need for interim steps and solutions which might be contraproductive to the idea of climate adaptation on the long run (Baker et al. 2012).

Procedural aspects: With the understanding that climate adaptation must be supported by large parts of the society, adequate processes must also embrace different perspectives and population groups (Preston et al. 2011). In consequence, new forms of stakeholder engagement are implemented more and more often (Susskind, Kim 2022). But similar to the fact that there is not much empirical evidence regarding the structures and restructuration efforts of local administrations, there is neither much evidence for “the design of public participation efforts” (Uittenbroek et al. 2019).

As mentioned above, local consequences of climate change are rather unknown and suitable structures do not exist yet. One popular approach to deal with this uncertainty is experimentation (Bulkeley, Castán Broto, & Edwards, 2015; Chu 2016). It is said to allow for learning-by-doing (Susskind, Kim 2022), for generating new governance capacities (Healey, 2004), and more effective policy styles (Lesnikowski et al. 2021) - as a pre-stage to formal planning (Schmitt et al. 2019).

Contextual aspects: The integration of a new topic also asks to consider wider structural and content-related contexts. This ranges from the establishment of new internal structures and procedures to the integration of different levels and competing objectives. Which reinforces the argument that, even within an institution, new forms of aggregating and sharing knowledge are needed (DifU 2015). In addition, local adaptation governance and planning are never independent from higher levels (Brooks & Adger 2005) - their concepts,

plans, legal frameworks and timeframes. For example: One specific climate adaptation measure may be considered state-of-the-art in one administrative unit, but it may have negative consequences on specific natural elements, or people, or socio-economic trends. And one more aspect: While most local administrations have to deal with limited resources in general, their resources may be allocated differently between units and departments (Chu 2016), causing further imbalances in capacities. And all these aspects increase the degree of complexity.

3 THE REWANKA PROJECT

ReWanKa (Reallabore Klimaanpassung und Regenwasser – Living Labs Climate Adaptation and Rain Water) is a transdisciplinary project dedicated to introduce the topic of climate adaptation to a specific local government with a focus on developing governance and planning approaches regarding rain water.

The motivation for the project was that, in Berlin, almost all construction projects have so far been planned without using the synergies of decentralized rainwater utilization and climate adaptation measures. Adequate solutions to reduce the effects of droughts and heavy rain events on urban vegetation are well known, but so far these have only been insufficiently incorporated into official action. As a result, during the current construction boom in a growing city, opportunities are repeatedly missed to jointly develop rainwater utilization and climate adaptation measures and to integrate them into higher-level plans and projects.

3.1 Methodological approach

In order to get the process started, the method “constellation analysis” (Konstellationsanalyse) was introduced. It has been developed as a method of innovation research, as a so-called “bridging concept for [problem-oriented] technology, innovation and sustainability research” (Schön, Nölting & Meister 2004: 3). It can be used to depict and analyze relationships between technology and differently organized society - also across different levels. During the ReWanKa project, we used the method for facilitating communication between (science and) practice, structuring of different perspectives, and capturing complex problem constellations (Schön et al. 2007; Ohlhorst, Kröger 2015).

The methodological core of the method is a workshop where invited stakeholders jointly develop a visualisation (they map a constellation) of an actual problem. In the case of ReWanKa, the question was: “How can the ability to act regarding rainwater/climate adaptation be strengthened (within the local administration)?”. In this workshops, the participants visualize the quality of a relation between actors, natural elements, signs and codes as well as technical artefacts. Such a visualisation helps to understand how aspects are (not) interrelated and which aspects are missing.

This methodological core can be added to by other formats. In the case of ReWanKa, we did five interviews beforehand with people responsible for specific topics within this sub-unit. The aim was to better understand how this unit is working, to start this discussion process and to identify shared points or terms of reference. Topics were structure, processes and context of their work, their content-related focus and specific challenges in relation to climate adaptation and rain water. The aggregated results of the interviews were discussed and validated during the actual constellation analysis workshop with a group of fourteen people (including some of the Interviewees). And later on, first ideas developed during the workshop have been implemented.

3.2 Intermediary Results

In the following, a short summary of the (intermediary) results of the projects, following the framework that has been presented in chapter 2.2.

Regarding structural aspects: The district administration has embraced the topic of climate change already with several resolutions) and the allocation of personal resources (climate protection managers). The interviewees referred to a large variety of plans, guidelines and concepts on climate protection and sustainability that are relevant for their work – but not many named the same ones. Decision-making structures and processes, similar to the whole district administration, are well established, but linear in order to be efficient. The recent increase in personal resources, rather unusual, has helped to attract some comparatively young staff.

The interviewees felt that climate adaptation is an important topic and that steps need to be taken to integrate it into their governance and planning processes. Rain water, in contrast, was a topic that was less well known. While conducting the interviews, it became obvious that introducing two topics at the same time is a rather complex challenge in itself. But in the end, this two-fold focus helped to better understand nuances in structure, process, context. Most of all, it turned out that different staff, units and departments have different perspectives and refer to different (legal) frameworks, content, scope and timeframes with differing data formats, and levels of detail. In addition, professional perspectives may be mixed with individual ones: For example, the interviewees were concerned to a different degree with the issues of climate adaptation and rainwater, they felt that specific aspects of climate change respectively measures were more relevant than others, and they would argue based on different guidelines and plans.

Regarding procedural aspects: Despite high individual motivation, the linear organisation of communication processes as well as the general workload do not allow for much discussion, knowledge sharing, or reflection. So far, to give a typical example, content-relation position statements are delivered according to a transparent but linear structure. Nonetheless, some of the staff already thought a lot about integrating climate adaptation in their work. They are aware that it would be a long-term, complex and resourceful process – but felt that something needs to be done to promote the topic within the whole district administration.

An idea that was mentioned several times was that there should be more content-related exchange and reflection on the consequences of their linear structure. This idea has been implemented shortly after the workshop, leading to a lively internal discussion about formats and specific aspects of climate adaptation governance and planning – and a continuing demand for regular content-related meetings.

Regarding contextual aspects: As mentioned before, different departments relate differently to the topics of climate adaptation and rain water - even within this comparatively small unit of the local administration. During the workshop, it became obvious that the knowledge about factual climate adaptation/rain water measures is very limited. Which means that it is more difficult to integrate something if one does not have an idea what would be possible. In this specific case it was, most of all, lacking knowledge of the possibilities and synergies of coupling various decentralized rainwater management and climate adaptation measures such as facade and roof greening or evaporation with energy-efficient, intelligent rainwater collection. In addition, the informal discussions helped to better understand specific consequences of administrative decisions. Especially when it comes to understanding wider socio-economic effects of governance and planning decisions.

While these first steps were very promising, the question is what (further) challenges will emerge when trying to establish the topics in a wider institutional context? It became obvious that more personal resources would be needed (this goes not only for climate adaptation). But it remained unclear who should take on coordination respectively leadership for the process. Anyway, the participants of the workshops agreed to continue informal exchanges. But they also felt that the general term “climate adaptation” is – according to the findings - seldomly used successfully in work conversations.

4 DISCUSSION – MAINSTREAMING LOCAL CLIMATE ADAPTATION

The ReWanKa project deals with the transformation issue of structural, procedural and contextual barriers. This short exploration highlighted practical issues – and provides some insight in the complexity of further practical steps to take.

The approach taken in this specific unit of local administration is an informal, explorative approach. But they face a linear, well-established structure that does only little allow for knowledge exchange, experimentation and reflection. Nonetheless, a new generation of public administrators is determined to integrate the topic. And they are aware that it will and must be a long-term and complex process with many steps to take.

It has been agreed that there should be regular, informal meetings with content-related discussions. This might also happen with different departments and different people joining once in a while. At this stage, it is unclear what the most suitable format could be. But it was decided to organize project-based meetings before the actual process of approving a new building application in order to informally exchange professional opinions, ideas and concerns. This, so is the hope, might also help to discuss the integration of the concept of climate adaptation in general at the local level. This clearly shows how content and structure are interrelated.

There are some first steps towards a more reflective structure in this (part of the) local district administration. However climate adaptation, is still a voluntary task for local governments in Germany. In consequence, there will be a large variety of approaches in the future. Despite the assumption that the findings describe a rather typical example of German local administration, it became clear that local administrations are not at all homogenous institutions. And it must be assumed that not every governance or planning approach works in every local administration.

5 CONCLUSION

Reflecting these intermediary results, the project is still very far from jointly developing standard solutions and processes that have great potential for change – as formulated in the application for the project. I presented a short insight into practical problems of local administration, structural, procedural and contextual, as well as some aspects of their interplay. Some useful ideas regarding the transformation of structures and procedures were developed, now facing the challenge of stabilization and mainstreaming.

It also became obvious that members of staff need some (internal and external) inspiration in order to understand the variety of consequences of implementing specific measures. This turned out to be productive. But at the same time, the discourse on rain water in this project has mostly been limited to the interrelations between blue and green infrastructures. But it could also be framed in other ways, too: Local governments could create specific incentives to encourage the use and reuse of rainwater, or awareness campaigns on the benefits of rainwater harvesting and how to collect, store, and use it efficiently. But then again - there may be some other important topics too in local administrations. The search continues ...

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6 REFERENCES

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