Citizen participation in climate protection – how to get everyone on board

Integration of citizens in climate protection measures of German Municipalities in Euregio

Bachelor's Thesis

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Word count:	11.784
Ethical approval:	200473
Date:	01.07.2020

Abstract

Aim – This thesis analyzes how German municipalities in the Cross-Border Region *Euregio* integrate citizens in their climate protection. It applies the institutional capacity and the adherence to good regional governance of municipalities to explore how they facilitate citizen participation.

Method – The thesis selects five municipalities through the criteria of population size and evidence of climate protection activity. The subsequent case study analyzes strategic papers and interviews with relevant local actors. The data is utilized to understand what climate protection measures exist and how municipalities integrate citizens in them.

Results – All municipalities agree on the importance of citizen participation for successful climate protection. Despite differences in their background, all have similar institutional capacities and adhere to good regional governance. Several climate protection measures dependent on citizens appear in all municipalities. Additionally, some municipalities offer notable unique measures.

Conclusion – Local climate protection depends on the integration of all local actors – citizens included. The municipalities attempt this by providing information and offering an infrastructure for communication between citizens and other actors. Transparency and meeting citizens on eye-level improve the chances of success. Additionally, municipalities have a role-model function towards citizens. By taking action, they can increase the support of citizens in climate protection.

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1. Introduction

The thesis aims to understand how German municipalities in Euregio integrate citizens in climate protection. It chooses this specific field as the integration of citizens is essential to the success of climate protection (Kalkbrenner, 2015, p.60). Citizens may not be informed of how they can live more environmentally conscious or oppose specific measures because of concerns against renewable energies, for example, an increase in electricity prices (see Krohn 1999). Here, participation might aid in educating citizens and finding a solution. Alternatively, citizens may propose a climate protection measure themselves through an initiative; whereafter the local government is tasked with ensuring the objective of the initiative is met. Breaking down stereotypes and highlighting the benefits of climate protection will be an essential task for municipalities in the coming years. Therefore, the thesis aims to investigate climate protection measures employed by German municipalities Euregio to engage with their citizenry. The thesis prioritizes communities on the German side due to language and time considerations, but future research on either side could be exciting. Climate protection, and in the broader context, climate change, are essential subjects with ever-increasing awareness in the general public. For successful climate protection, public regional and local actors will need to be prepared to engage with their citizens. By learning from municipalities already delving into this subject now, future steps can be more successful.

The research explores how different German municipalities in the Dutch-German cross-border region, *Euregio*, are incorporate citizens in their climate protection. With ever-increasing importance and coverage of climate protection, the research helps in understanding what action is necessary or counterproductive in engaging citizens in climate protection. Herein, municipalities may contact local stakeholders to produce and implement solutions in networks, instead of the administration functioning as the sole traditional policy-makers. Citizens are not the only group of stakeholders in these networks; local businesses and researchers can be just as involved. The research chooses citizens as the focal point among the different stakeholders. They can be involved in different types of participation, ranging from being informed on offers to cooperating with traditional stakeholders. The different types of participation are introduced later in the thesis in greater detail.

The stage in which citizens are involved in the policy process also has implications for the success of policies (De Vries, 2006, p.171). There is no clear empirical evidence on when best to involve citizens, yet the current consensus "seems to be that it is better to involve people as early in the process as possible (De Vries, 2006, p.171)". Thus, the thesis introduces different stages of the policy cycle to identify when municipalities involve citizens with what type of participation. Local governments need institutional capacities and regional governance

to establish citizen participation effectively (see Cuthil & Fien, 2005; Stablo & Ruppert Winkel, 2017). Institutional capacity enables the municipality to perform tasks that allow it to facilitate citizen participation. Regional governance, in turn, is vital to establish networks in which public authorities exchange with citizens. The thesis aims to achieve a better understanding of municipalities' role in facilitating citizen participation in the field of climate protections as of 2020. The research addresses a gap in research and empirical evidence on how municipalities integrate citizens in climate protection measures. The primary objective of this thesis is an analysis of the different types of citizen participation in municipalities' climate protection measures.

MRQ: "How do German municipalities in Euregio try to involve citizens in shaping and implementing climate protection within their municipalities?",

Q1: What climate protection measures are municipalities facilitating or supporting? Q2: Do municipalities with different institutional capacity, and regional governance use different climate protection measures to engage civic communities?

The objective of the first subquestion is to investigate what climate protection measures German *Euregio* municipalities utilize and create an inventory of relevant climate protection measures. Measures appearing multiple times, or otherwise turning out to be notable, will make up this inventory. Next, the thesis investigates whether institutional capacity and regional governance explain differences in the type of citizen participation utilized by different municipalities. Based on the different insights of these questions, the thesis aims to establish why municipalities choose different types of participation. The first sub-question of the thesis will be descriptive; the following question is explanatory. The thesis is structured as follows: Chapter two discusses the theoretical framework of the thesis, chapter three, the methods, and operationalization, chapter four, the findings in the municipalities. The final chapter provides the answer to the research questions and presents recommendations for future research

2. Theoretical framework

This chapter discusses the relevant concepts of the thesis and presents its hypotheses. The theoretical framework ends with the research model of the study.

2.1 The policy cycle

The theoretical starting point of the thesis is the policy cycle. First formulated in the 1950s by Lasswell, the concept has since undergone a series of changes to adapt to ever-changing characteristics of policy-making (Jann, 2017, p.43). This concept separates policy-making into the five stages of agenda-setting, policy formulation, decision making, implementation, and evaluation (Jann, 2017, p.44). In agenda-setting, public administration identifies relevant problems. Next, policy-makers formulate policy solutions to these problems. They set objectives that this policy solution should reach. With that, the implementation of the policy begins. A successful implementation includes a specification of program details, allocation of resources, and a clear idea on how to carry out decisions (Jann, 2017 p.53). Once the implementation is complete, the policy is evaluated and terminated. Here it is the objective to evaluate whether the policy met its objectives and had any side-effects to analyze. The concept is not without its critics. The different stages in the policy process may not be distinctly separate (Jann, 2017, p.56). Different stages occur at the same time or not follow the sequence of the model. Nevertheless, it remains essential in presenting a structured approach to "the internal dynamic and peculiarities of complex processes of policy-making (Jann, 2017, p.57).

2.2 Institutional capacity

The research project uses theories on institutional capacity and regional governance to set a framework that explores the action of the municipalities. The concept of institutional capacity often applies to the state-level (Isaza, 2015, p.7); this thesis applies it on the regional level. It refers to the ability of an institution to perform a specific task (van de Meene, 2007, p.2). Here, it is related to the ability of municipalities to formulate climate protection measures that incorporate. Municipalities play an important role in encouraging citizen participation, but to do so successfully, they must have the capacity to support citizens properly (Cuthill & Fien, 2005, p.63). Municipalities need to focus on three requirements to establish strong capacities and ensure the proper support for their citizens (Cuthill & Fien, 2005, p.71). The first requirement

involves municipalities collecting and sharing information that is vital for designing policies related to citizen participation. Next, municipalities must offer a transparent and fair policy process that facilitates citizen participation. Finally, the organizational culture needs to be supportive of citizen participation by not refusing to share power and involving new stakeholders (Cuthill & Fien, 2005, p.73). Citizen participation can only be successful if municipalities adhere to these requirements and have built strong institutional capacities. Consequently, the first hypothesis links stronger institutional capacities with more developed citizen participation.

H1: Municipalities with strong institutional capacities will have more developed climate protection measures regarding citizen participation than municipalities with weaker institutional capacities.

2.3 Regional governance

The study analyzes climate protection activities of municipalities in the framework of regional governance. Regional governance is closely related to commonly more applied concepts of national or global governance (Krahmann, 2003, p.325). These concepts categorize the interaction between formal institutions like traditional governing bodies and the civic society (Best, 2006, p.6). The regional variant has emerged in the mid-1990s with several functions denoted to its scope. Its first feature is that instead of the administration being the principal actor, stakeholders from different spheres of society are integrated into decision-making. State and informal actors interact in a non-hierarchal relationship in which they are mutually dependent on each other. Lastly, regional governance manages to regulate the social and political risk of decision-making (Krahmann, 2003, p.327 f.).

An issue with regional governance is that building a uniform theory has been problematic. There has not been a transfer of the findings of specific cases into a generable definition that describes an ideal framework (Nischwitz, p.6). The thesis could have selected a variety of different approaches just for the German context that are all valid contributions to the subject (see Diller, 2016). Out of this variety, it applies the normative approach of "good regional governance." It refers to a type of regional governance that adheres to specific normative criteria that must be fulfilled for regional governance to meet its functions as mentioned above (Stablo & Ruppert- Winkel, 2017, p. 163). The first two criteria demand openness for any voluntary participant and democratically legitimizing decision-making to decision-making (Stablo & Ruppert-Winkel, 2017, p. 164). The next criterium calls for negotiation and cooperation being the main tools of decision-making, rather than incentives and hierarchal steering (Stablo & Ruppert-Winkel, 2017, p. 165). The final criterium is the stability of relations

between the different actors, which encompasses the internal institutionalization between actors within the region and external institutionalization with exterior actors (Stablo & Ruppert-Winkel, 2017, p. 165). The internal institutionalization can occur through hard or soft practices. To sum up, the thesis assumes that good regional governance has a positive effect on municipalities' climate protection measures.

H2: Municipalities with a higher degree of "good regional governance" will have more developed climate protection measures regarding citizen participation than municipalities with weaker institutional capacities.

2.4 Citizen participation

The thesis defines citizen participation as "citizens' access to and participation in information, decision making, and implementation of public policies (Matonyte, 2011, p. 249)". The emergence of governance models leads to an increasing amount of attention regarding the role of participation in successful decision-making (Magnette, 2003, p.144). Through engaging with citizens on matters that affect them, the effectiveness of public policy improves. There is a difference between formal and informal participation (Chareka, 2005, p.55). The former, also coined citizen engagement, is initiated by the public administration (Balbach, 2018). The local government incorporates citizens in their climate protection measures. In contrast, citizens initiate informal citizen participation, characterized by less hierarchy.

One of the essential concepts in the theory of citizen participation is Arnstein's Ladder (see Arnstein, 1969). She proposed to separate the type of participation into eight steps of a ladder. The bottom two steps of manipulation and therapy are substitutes for meaningful participation, thus referred to as non-participation (Arnstein, 1969, p.217). Arnstein considers steps three to five, informing, consolidation, and placation as a token approach to participation. Citizens can voice their opinion, but public administrators do not need to incorporate these opinions. Only the steps of partnership, delegated power, and citizen control allow citizens to influence or control decision-making. This thesis applies a model of Arnstein's ladder that is developed for the German local context. Besides being adapted to citizen participation in German municipalities, it is more accessible as it utilizes four stages that correlate with the eight steps by Arnstein (Städtetag, 2012, p. 62. The four steps differentiate between formal and informal participation, but for both, the order of intensity is equal.

- 1. Information (Formal/ Informal)
- 2. Listening (Formal)/ Consultation (Informal)
- 3. Agreement & Behaviour (Formal) /Participation (Informal)
- 4. Deciding (Formal)/ Cooperating (Informal)

In the first step, policy-makers only exchange information with citizens. Citizens can only express their opinion in the second step, but policy-makers are not required to implement the opinions. The third step allows participants to participate in the decision-making process actively; at this stage, policy-makers have to incorporate their input. In the fourth and final degree of intensity, citizens also can participate in finalizing the decision and may have a say in further proceedings (Städtetag, 2012, p.62).

2.5 Research model

Municipalities require structures that ensure they can build up citizen participation effectively and in a controlled manner. Institutional capacities are necessary to ensure that municipalities can create channels for interaction. Good regional governance is vital for the interaction between different actors. The research aims to investigate whether these independent variables account for the type of citizen participation in the climate protection measures of the selected municipalities. The steps on which a measure can be placed determines its type. The thesis assumes that stronger capacities and governance enable the integration of citizens on higher steps:

Figure 1.



3. Method

First, this chapter introduces the research design and case selection. On this basis, it presents the data collection. The chapter ends with the operationalization of the different concepts.

3.1 Research design

The thesis is a cross-sectional study of German municipalities in the *Euregio*. This research design measures all variables of a set of units - in this case, municipalities- at the same time. It examines detailed information on the existing climate protection measures for similarities and differences in the municipalities' approach. Policy-documents and interviews will be the primary sources of the thesis. The benefit of this approach is its strong external validity by comparing the effect of independent variables in different cases. No other research design can evaluate the impact of independent variables to the same extent. A potential flaw is the weak internal validity of the design. Reverse causation between dependent and independent variables cannot be ruled out, and it may neglect the role of third variables. The design accommodates the latter risk as both independent variables are proven to affect citizen participation measures of the local government. Additionally, the qualitative approach has the advantage that it can incorporate unforeseen factors throughout the research.

Data triangulation is the best method to enhance data reliability in response to threats to internal validity. Triangulation refers to collecting the information for the thesis using different methods or data sources (van Thiel, 2014, p.92). This diversified approach reduces the risk of only depending on few, potentially flawed sources, and may broaden the perspective of the study. Interviews are one venue for diversifying the methods of collecting information (Van Thiel, 2014, p.95). They enable the researcher to understand the unique characteristics of the case better. In general, they are valuable in gaining a more accurate perspective of the case that goes beyond the information available trough strategic papers. The thesis might also approach active members in citizen participation schemes in the selected municipalities to not only collect information from the municipalities' point of view.

Of course, interviews are also potentially flawed and require caution. As an interviewer, one needs to be cautious not to bring his or her own biases into the interview. The interviewee might also refrain from complete honesty in their response if this would lead to unfavorable results. Thus, critical evaluation of interviews enhances the integrity of the research. For this thesis, they are an integral part of understanding the context of strategic papers or filling in blanks where those offer little information. The combination of a cross-sectional study with a

qualitative approach is an appropriate design as strengths of the research design are enhanced, and potential risks to the internal validity can be mitigated.

After the collection of information from documents and interviews, the thesis utilized its established concepts to assess the hypotheses and answer the research questions. In this process, it investigated whether the collected information shows the strength of the independent variables. Consequently, the thesis evaluated if this strength explains the type of citizen participation in each municipality. As the final step, it explored the similarities and differences in variables between municipalities.

3.2 Case selection and sampling

On its German side, 104 municipalities across two federal states are part of *Euregio* (*Euregio* 2019); thence, there is a great need to narrow down the selected cases. The thesis selects three municipalities in North-Rhine Westphalia, and two in Lower Saxony by the sampling method of criterion sampling (Patton, 1990, p.177). Its advantage is the collection of information-rich cases that enable in-depth qualitative analysis. The first selection criterion is the size of the municipalities. Larger cities might have more resources to spend on citizen participation, whereas in smaller cities, the citizenry might have a more direct line to public authorities to call for participation. Accordingly, the thesis selects differently-sized municipalities. The second criterion is evidence of climate protection activity in municipalities. If a municipality does not deal with climate protection on its website or has no energy projects on its grounds, it is unlikely to produce enough information to be worth studying. The thesis only chooses municipalities with evidence of climate protection activity to prevent this.

For NRW, the thesis selects municipality A, a small municipality, because of its *Klimaschutzkonzept*¹. This concept presents a detailed plan on how the municipality can reach its climate targets and incorporate citizens in this process (Municipality A, 2019). It selects municipality B as a large city in the *Euregio*. It also has long-standing engagement, for example, in the German network *"Masterplan-Kommunen 100% Klimaschutz"*. Municipality E is chosen as a small municipality with a pioneering role in local climate protection schemes, prompting a visit by 45 participants of the UN Climate conference in 2017 (Lüttmann, 2017). In Lower Saxony, the thesis first selects Municipality C. The mid-sized municipality is the only one in its *Landkreis* to present a climate protection concept. The final selected municipality is Municipality D. Similar to Municipality B, it has engaged in climate protection since the 1990s and emphasizes its pioneering role in climate protection on its website.

¹ A translation of the used German compound words is available under A4

The thesis developed a coding scheme for the collected data to analyze citizen engagement in the five selected municipalities. This scheme is available under A2 and highlights how documents reflected citizen participation, institutional capacity, and good regional governance. The number of selected documents varied between municipalities, especially the larger had a higher number of concepts created over the last 15 years. Two other municipalities had additional material in the form of progress reports or flyers supplementing the climate protection concept. Finally, the municipality with the newest climate protection concept had no progress reports or other supplementary data available yet. The very detailed concept and an additional interview with the respondent at that municipality were able to present enough findings regardless.

3.3 Data collection

The data for the thesis is qualitative. It collected the data via two methods: Document analysis and interviews. These are the most appropriate sources as they grant access to the thought process of municipalities. The thesis selected strategic documents by the municipalities that outlined their strategy for climate protection. These were available on the websites of the municipalities. As they must be held to public scrutiny, they are required to be truthful in their accounts. The different climate protection concepts were the most valuable documents as each reviewed possible climate protection measures that integrated citizens. Additional documents were passed on by policy-makers from the municipality. Strategic documents were essential to analyze the extent to which independent and dependent variables materialized in each case.

For each of the five municipalities, one interview was conducted via telephone. The thesis chose respondents that were in charge of the administration's climate protection. In one case, the respondent was accountable for the municipalities' public relations work. The interviews contributed by adding further information not available through documents. The different climate protection concepts are between 1 and 11 years old, and no other documents were as precise. Interviews were also useful in further examining how independent and dependent variables in each of the municipalities emerge. In one case, the respondent could not interview via telephone. Regardless, a written response was able to provide the necessary insights.

Interview transcripts and policy documents are available in Annexes. A1 presents the list of consulted documents and A2 the coding table used for the analysis. Data Appendix I also shows the results of the data analysis, and Data Appendix II displays the interview questions and transcripts.

3.4 Operationalization

Table 1.

Inventory of climate protection measures

Step Measures	1. Information	2. Listening/ Consultation	3. Agreement & Behaviour/ Participation	4. Deciding/ Cooperating

The thesis places the notable climate protection measures of each municipality on the corresponding steps of the participation ladder. Some measures can be placed on different steps simultaneously.

Table 2.

Institutional capacity

Strength	Weak	Medium	Strong
Requirement			
Sound information base			
Equitable, accountable and			
transparent participatory processes			
Supportive organizational			
culture			

Three requirements for the local administration determine the strength of institutional capacity in the selected municipalities (Cuthill & Fien, 2005, p.69).

- a. Sound information base
- b. Equitable, accountable and transparent participatory processes
- c. Supportive organizational culture

A2 shows the broked-down aspects of each requirement. The analysis of documents and interviews reviewed to what extent each municipality meets the requirements. For each municipality, the thesis grades the adherence to the requirements on a three-point scale. It sees the adherence as weak if requirements are not met, and as a medium, if they are met to some extent. It selects strong if documents and interviews prove that they are met to a great extent.

Table 3.

Good regional governance

Adherence	Weak	Medium	Strong
Claim			
Participation is possible for any stakeholder			
Democratically legitimized decision-making			
Cooperation and negotiation			
Institutionalization			

The study checks the adherence of municipalities to the normative claims of this definition of regional governance to operationalize good regional governance. To repeat, these normative claims are

- a. Participation is possible for any stakeholder
- b. Governance-processes remain connected with democratically legitimized decision-making
- c. Cooperation and negotiation are the primary steering mechanisms
- d. The relations between different actors are stabilized either through hard or soft institutionalization

Again, Annex I provides the elaborate aspects of each claim. As with institutional capacity, the adherence to all four criteria in documents and interviews will determine the grading of each municipality. The grading is identical to that of institutional capacity.

4.1 Results

This chapter presents the results of the document analysis and interviews. These results are first presented per each municipality, separated between their measure of citizen participation, institutional capacity, and good regional governance. Afterward, a summarized representation in the analysis brings the results together and answers the hypotheses.

4.1.1 Municipality A

Table 4.

Climate protection measures A

Step	1. Information	2. Listening/ Consultation	3. Agreement & Behaviour	4. Deciding/ Cooperating
Measures			Participation	Cooperating
Public relations work (Municipality A, 1, 12.5, 163)				
Integration of students (Municipality A, 1, 1.4.2,7)				
Introductory events and workshops (Interview A, L.20)				

Municipality A developed its climate protection concept in profound cooperation with an external consultant between 2018 and 2019. The climate protection concept describes three different types of participation that the municipality should strive to utilize (Municipality A, 1, 12.5, 157). These are, in order of intensity, information and motivation, engagement, and cooperation. The intensity applied in each case depends on the goal of the decision. Where simple work in public relations is required, informing citizens is sufficient. When the municipality takes decisions that have an impact on multiple stakeholders, cooperation is required. The interview confirmed that the municipality structures participation along these lines (Interview A, L.65). Workshops on specific subjects are currently vital to reach out to the population (Interview A, L.20). The integration of students through events at the local school is another vital element of participation, as awareness in this group can have a positive impact on climate protection in the future (Municipality A, 1, 1.4.2, 7). Both the concept and interview highlight the importance of integrating citizens early in the policy process and allowing participation throughout it (Interview A, L.71-73).

Table 5. Institutional capacity A

Strength	Weak	Medium	Strong
Requirement			
Sound information base			
Equitable, accountable and transparent participatory processes			
Supportive organizational culture			

The municipality did not collect information on specific stakeholders at any point during their climate protection activity. Instead, Municipality A reached out to well-established local actors and prompted them to participate in creating the concept and for future climate protection (Interview A, L.88). The provision of vital information to citizens, the second element to the sound information base, is essential to the work of the municipality (Municipality A, 1, 12.5, 163). Thus, despite the short time since implementing the concept, Municipality A already has a sound information base. The small-town structures allow the municipality to identify the relevant actors quickly. The channels between municipality and citizens are short and make open and accountable participation easier to achieve (Interview A, L.107). Open integration took place from the very beginning of creating the concept through an open workshop. The only issue brought up in the interview lies in facilitating participation in non-climate-conscious citizens. The municipality secured a core of participants, but expanding it proves difficult (Interview A, L.119-121).

Consequently, it utilizes a variety of community capacity building programs to facilitate citizen participation. The municipality was successful in embedding climate protection through coverage in local newspapers and by reaching out to relevant actors (Municipality A, 1, 12.5, 157). The concept also calls for the administration to review internal structures to achieve climate protection objectives better (Municipality A, 1, 12.5, 163). A steering group represented by political and administrative actors of municipality A and staff of the external consultant follows the progress of climate protection. The group can keep track of the networks and structures that the municipality builds up and thus can secure a more accountable and transparent participatory process. In summary, the municipality is very diligent in establishing an open, accountable, and transparent, participatory process. Again in parts to the small-town structure, the relationship between the administration and local actors is very trustful and

transparent (Interview A, L.99-102). In sum, Municipality A developed high institutional capacities since implementing the climate protection concept.

Table 6.

Good regional governance A

Adherence	Weak	Medium	Strong
Claim			
Participation is possible for any stakeholder			
Democratically legitimized decision-making			
Cooperation and negotiation			
Institutionalization			

As introduced earlier, the participatory channels in the municipality are open for any interested stakeholder (Interview A, L.56-60). Since the creation of the concept, any interested citizen had the opportunity to take part in workshops and events to aid in agenda-setting and creating measures. Especially the elected political actors in the municipalities steering group secure the democratic legitimacy of decision-making. The municipality sees citizens as relevant actors that it needs to integrate into climate protection (Municipality A, 1, 1.4.1, 5). Notably, civic organizations that deal with climate protections have expertise that is useful for the municipalities' activities (Interview A, L. 50).

Both the concept and interview make a note of the importance of cooperation and negotiation. The relevant actors need to work together to reach their objectives (Interview A, L.50-52). The municipality attempts to facilitate communication by reaching out to different actors and hosting events and forums (Interview A, L.88). Here, the participants can discuss their objectives to achieve transparency between them. Transferring information to all relevant actors is another element that enables all stakeholders to cooperate with the same level of knowledge (Municipality A, 1, 12.5, 164). The concept specifies the need for transparent communication by the administration for this purpose (Municipality A, 1, 12.4, 154). All these measures ensure that cooperation and negotiation determine the decision-making between stakeholders. Civic organizations and other actors engaging with climate protection before the creation of the concept laid the first foundation for institutionalizing climate protection networks (Municipality A, 1, 12.1, 141). Due to these actors, there was already some salience within the municipality, and there were existing networks in place.

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The concept includes a detailed stabilization strategy that aids in the institutionalization of existing and new networks. As part of this strategy, municipality A further promotes the salience and visibility of climate protection efforts by advertising its events in local media (Municipality A, 1, 12.3, 152). Decisive action by the administration embeds climate protection internally and lets it play its role model function credible (Municipality A, 1, 12.5, 163). The creation of the steering group is a measure that enables a proper integration of topics and actors. The concept proposes further network-building as another measure that improves the exchange between actors (Municipality A, 1, 12.5, 163). The increasing awareness of climate change in the general public encourages citizens without prior commitment to become climateconscious and expand participation (Interview A, L. 136-140). Through its experience, the municipality is equipped to transfer information and ensures information equity between actors (Municipality A, 1, 12.5, 155). External institutionalization occurs in a workgroup between the municipalities of the Landkreis that has formed to deal with climate protection (Interview A, I.190-194). All things considered, Municipality A adheres to good regional governance. Its administration functions as a negotiator and intermediary between different actors and offers open access to anyone interested in participating.

4.1.2 Municipality B

Table 7.

Step Measures	1. Information	2. Listening/ Consultation	3. Agreement & Behaviour Participation	4. Deciding/ Cooperating
Low-threshold participation(Municipality B, 3, 6.4, 139)				
Integration of students (Municipality B, 1, 8, 199)				
Klimamischpoke (Interview B, 2b)				
Introductory event and workshops (Municipality B, 3, 3.2, 20).				

Climate protection measures B

Municipality B began with climate protection activities in the mid-90s and created extensive networks and objectives since then. In 2015, the city decided to participate in the funding program "*Masterplan 100% Klimaschutz*". Consequently, they devised a concept that

formulates objectives for 2050 and began the implementation in late 2017. In 2019, the city declared a climate emergency that reworked the concept and set more ambitious targets for 2030.

Early on in its climate-protection activities, Municipality B struggled with the effectiveness of citizen participation as citizens did not believe they had enough input in decision-making (Interview B, 5e). Having learned of this, Municipality B now offers and supports a variety of campaigns and supports. The baseline objectives of the municipality in the communication with citizens are to inform, sensibilize, and motivate them of what they can do to protect the climate (Municipality B, 1, 8, 199). Citizens can participate in numerous channels. They could access the development of all concepts except for the climate adaption concept of 2015 through introductory events (Municipality B, 3, 3.2, 20). In the said concept, participation was limited to invite actors with the relevant know-how due to its technical nature (Interview B, 2c). Other events take place regularly and enable citizens to inform themselves or voice their opinion. Besides these events dealing with specific subjects, citizens can take part in the Klimamischpoke, a civic organization promoting climate awareness among citizens (Interview B, 2b). Said organization also promotes low-threshold participation in citizens (Municipality B, 3, 6.4, 139). A multitude of additional campaigns exists that promote a climate-friendly lifestyle through different means. Where applicable, the municipality integrates citizens at an early stage of the decision-making and keeps them integrated throughout the policy process (Municipality B, 3, 3.2, 20).

Table 8.

Institutional capacity B

Strength	Weak	Medium	Strong
Requirement			
Sound information base			
Equitable, accountable and transparent participatory processes			
Supportive organizational culture			

As of 2020, Municipality B built up significant institutional capacities for climate protection activities. The high number and diversity of actors make the collection of information essential (Interview B, 3a). Regular exchange, for example, during events or forums, assists the collection of information. The diverse channels of participation further enable the municipality

to provide information to interested actors. Through the work of the different concepts, Municipality B thus secures a sound information base.

With the profound provision of information, Municipality B also achieves equity in the participatory processes. An organization such as the advisory *Klimabeirat*, consisting of experts from different fields, can hold the municipality accountable with its feedback (Municipality B, 3, 3.2.2, 22). Transparency towards other actors is another cornerstone of the municipalities' work (Interview B, 3c). The consequent creation of a communication level with citizens further ensures proper participatory processes (Municipality B, 3, 6.4, 139). With a citizenry as diverse as Municipality Bs, there is no general indication of the trust between citizens and administration (Interview B, 3c). However, the constant exchange between them and the transparent relationship indicates that most interested actors trust the administration. It attempts to secure this trust by supporting citizen initiatives and being approachable for anyone.

Table 9.

Good regional governance B

Adherence	Weak	Medium	Strong
Claim			
Participation is possible for any stakeholder			
Democratically legitimized decision-making			
Cooperation and negotiation			
Institutionalization			

Except for highly complex subjects, participation is generally open to any interested citizen. The municipality may limit the participation to experts and environmentally conscious citizens for these complex subjects (Interview B, 3b). This is not too restrictive as citizens can participate in other channels and "work their way up" to be invited at some point, and regular events are open to anyone. The political support of Municipality Bs climate-protection activities becomes evident after the city declared a climate emergency in 2019. Immediately after the declaration, the city passed a resolution that commits the municipality to reduce its impact on climate (Municipality B, 4, n.a., 1). The increased level of support assured the legitimacy and effectiveness of decision-making. Independent organizations like the *Klimabeirat* or the administrative coordination-organizations *Klenko* can keep oversight of decision-making

(Municipality B, 3, 4.4, 42). The municipality also recognizes citizens as rightful power-holders, which legitimizes citizen-led action (Municipality B, 3, 6.6, 143). Cooperation and negotiation between the actors in the network is another vital component of the Municipality Bs' climate protection activity. Different actors in the local climate protection networks formulated the goals of different concepts in negotiation (Municipality B, 3, 3.2.2, 22). At the different events or in the existing organization, the relevant actors can meet and convey their interests. If a citizen desires to contact the municipality with a suggestion directly, he can still do so despite the municipalities' population.

The institutionalization of the governance networks was already strong before the implementation of the most recent concept, which only further stabilized it. It expanded the established expert dialogue, which assisted the climate protection activities in the municipality (Municipality B, 3, 3.2.1, 21). While this expert dialogue contained significant know-how, the variety of climate-friendly offers in the municipality did not reach citizens as intended (Municipality B, 2, 3.7, 67). By opening up the dialogue, the municipality is better able to facilitate citizen participation. This also helped to raise the salience of climate protection in citizens, as did the declaration of a climate emergency (Municipality B, 3, 4.4, 42). The municipality emphasizes how climate protection is a joint effort of all local stakeholders (Municipality B, 3, 4.4, 42). The close cooperation with citizen organizations like the Klimamischpoke and continuous support of other citizen-led projects stabilizes the climate protection in municipality B (Municipality B, 3, 6.4, 139). Municipality B is interconnected in different national and international networks between engaged municipalities that promote a local approach to climate protection (Municipality B, 5, n.a., 1). Municipality B occasionally implements joint projects with other partners but has no institutionalized exchange on this level (Interview B, 6a).

To summarize, as of 2020, Municipality B adheres to good regional governance principles and built extensive networks for climate protection.

4.1.3 Municipality C

Table 10. Climate protection measures C

Step Measures	1. Information	2. Listening/ Consultation	3. Agreement & Behaviour Participation	4. Deciding/ Cooperating
Public relations work (Municipality C, 1, 1.3, 13)				
Stadtradeln/ Frühjahrsputzaktion/ Urban Gardening (Interview C, 6a)				
Integration of students (Interview C, 2a)				
Introductory event and workshops (Municipality B, 3, 3.2, 20).				

Municipality C began developing its climate protection concept in 2013 and finished it the year after. Before, it had not executed any climate protection activity on a larger scale. For the next three years, a state-subsidized climate manager aided and coordinated the implementation of the concept. Since then, the municipality decided to focus its climate protection on encouraging bicycle-usage, and it employs a coordinator for mobility-themed climate protection. The remaining climate protection activities advance under the responsibility of another administrative worker (Interview C, 1a). Municipality C outlines four types of citizen engagement: Raising awareness, providing information, promoting collaborative learning and dialogue and exchange (Municipality C, 1, VII, 57 f.). Participation initiated by citizens is no central focus of the concept, but in recent years, the municipality is to inform citizens of the offers available to them and enter into a dialogue whether they will welcome these offers (Municipality C, 1, 1.3, 13). Again, concept and interview emphasize that disclosing the importance of climate protection to students is a cornerstone of the municipalities' work (Interview C, 2a).

Interested actors could participate in open events since the creation of the concept. In these events, participation in workgroups also empowers these actors to have input on the final concept (Municipality C, 1, 1.2, 7). Next to these channels of participation, Municipality C also hosts various events that further increase contact with citizens. *Stadtradeln* is a month-long campaign hosted in various German municipalities that aims to motivate citizens to use their bicycles (Municipality C, 3, 3.2.8, 14). While Municipality C heavily promotes the campaign,

Municipality A and Municipality D also host it. Similarly, at the *Frühjahrsputzaktion*, citizens can collectively clean up their municipality. Municipality B and Municipality D have a similar event sponsored by the city or, respectively, the local waste company. These may be events not traditionally connected to climate protection. Nevertheless, they strengthen the relationship between citizens and administration as well as embedding climate-friendly action in citizens (Interview C, 6a).

Table 11.

Institutional capacity C

Strength	Weak	Medium	Strong
Requirement			
Sound information base			
Equitable, accountable and transparent participatory processes			
Supportive organizational culture			

Municipality C conducted interviews with local knowledge-carriers to accommodate the lack of experience in climate protection when developing its concept (Municipality C, 1, 1.3, 9. The interviewees indicated that the municipality needed to offer more substantial support of initiatives and carry out public relations work that provides information reliably (Municipality C, 1, 1.3, 12). As of 2020, the respondent in Municipality C sees a definite improvement in its capacities to collect and provide information (Interview C, 1c). The thesis considers the information base of Municipality C as sound due to the effort taken by the administration in collecting vital information through interviews, and the sincerity with which it incorporates insights.

Apart from the municipality itself, citizens and cooperation-partners from other spheres are the primary target groups of Municipality C's climate protection (Municipality C, 1, VII, 56). The municipality is responsible for integrating the other actors and guaranteeing transparency. Public relations work is another vital tool for open and equitable citizen participation. The municipality had to secure the required capacities for communication and secure increased transparency (Municipality C, 1, 1.3, 9). Municipality C attempts to ensure that the participatory process is open and fair. The concept itself is perhaps vague about achieving this, but the interview indicated that Municipality C places great importance on these values (Interview C, 3b). The same holds for the supportive organizational culture. The administration works

towards being transparent and building trust, and the people-oriented measures help in those efforts. The interview exclaimed that the relationship between administration and citizens is trustful for a city its size and improves with the increasing experiences between them (Interview C, 3c). To summarize, Municipality C built up more than sufficient institutional capacities since 2013.

Table 12.

Good regional governance C

Strength	Weak	Medium	Strong
Claim			
Participation is possible for any stakeholder			
Democratically legitimized decision-making			
Cooperation and negotiation			
Institutionalization			

Participation in Municipality C is open to many stakeholders. Besides participation in events, citizens can voice their demands through political representatives or neighborhood-groups (Interview C, 4a). The concept served as a legitimacy tool to initiate more climate protection. Support by the administration of citizen initiatives further legitimizes the decision-making (Municipality C, 1, 1.3, 12). Municipality C develops its climate protection activity based on cooperation between actors. The administration primarily sees itself as a mediator with the responsibility to link the different actors (Interview C, 4c). The consensus between the actors on the importance of climate protection enables this cooperation. In 2014, Municipality C had no local social formations that prioritized climate protection and thus lacked a foundation for communication (Municipality C, 1, 1.3, 10). Since then, the issue of climate protection arrived both in administration and citizenship (Interview C, 1b). Measures to raise the salience and visibility of climate protection were crucial in this regard (Municipality C, 2, 25, 57). Starting with the events and workshops during the creation of the concept, Municipality C consistently contacted relevant stakeholders and made information available.

Municipality C integrated local stakeholders by reaching out to them and hosting the events mentioned above. A consultancy infrastructure is another measure that aims to integrate citizens into the network that engages in climate protection (Municipality C, 2, 27, 61). The interviewee highlighted the importance to reevaluate the current structures and campaigns and

adapt for better effectiveness (Interview C, 5a). Thus, even without any progress reports over the last three years, Municipality C still secures a process evaluation. External institutionalization occurs within the scope of the *Landkreis* (Interview C, 5c). An advisory council comprised of regional actors discusses the progress of climate protection in the municipalities. In summary, Municipality C adheres to good regional governance despite the limiting factors at the beginning of its climate protection activity.

4.1.4 Municipality D

Table 13.

Climate protection measures D

Step Measures	1. Information	2. Listening/ Consultation	3. Agreement & Behaviour Participation	4. Deciding/ Cooperating
Public relations work (Municipality D, 2, 6.4, 232)				
Low-threshold participation (Municipality D, 2, 6.1.4, 170).				
Masterplanbeirat (Interview D, 5c)				
Citizen forums/ Runder Tisch Radverkehr (Municipality D, 2, 4.3.2, 89)				

Municipality D began its climate protection activities in the early to mid-1990s. Since then, citizen participation was possible at the *Runder Tisch CO2*, where citizens could meet with administrative actors to inform themselves and provide input (Municipality D, 2, 4.3.2, 89). Just like Municipality B, it formulated a Masterplan in 2014 that set objectives for near-climate neutrality in 2050.

Education, consultation, and information of citizens are the cornerstones of Municipality Ds' climate protection activities (Municipality D, 2, 6.4, 232). When developing the Masterplan, the municipality expanded the *Runder Tisch CO2* with local actors from all spheres of society to pool the knowledge and expertise of the different actors together. The newly formed *Masterplanbeirat* has since then become an important advisory organization to exchange information and influence the development of Municipality Ds' climate protection (Interview D, 5c.). Apart from this venue of participation for experienced citizens' part of civic organizations,

regular events enable participation for the general public. For example, citizens' forums on the level of city quarters allow citizens to meet with administrative and political actors (Municipality D, 2, 4.3.2, 89). The city also initiated a round table for bicycle traffic while implementing the concept (Municipality D, 2, 4.3.2, 89). There is not much recent information available on this round table. However, it and similar forums indicate the commitment to citizen participation in Municipality D. Additionally, the municipality promotes low-threshold participation to embed climate protection in citizens that are not interested in or capable of participating otherwise (Municipality D, 2, 6.1.4, 170). Early integration of citizens is no proclaimed objective in every case. Instead, the framework of the distinct case determines when integration occurs (Interview D, 2c). The Masterplanbeirat secures the participation of engaged citizens in any case.

Table 14

Institutional capacity D

Strength	Weak	Medium	Strong
Requirement			
Sound information base			
Equitable, accountable and transparent participatory processes			
Supportive organizational culture			

During the development of the Masterplan, collecting information on the state of affairs was an important factor (Interview D, 3a). Different studies and expert reports clarified the position of local actors and the potential for climate protection measures. With its diverse actors, the *Masterplanbeirat* is also crucial in recognizing the local conditions. Municipality D guarantees the provision of information as part of its efforts to educate and inform citizens of a fundamental element of climate protection work.

This provision of information secures the informational equity between participants. The municipality is very supportive of citizen participation and has facilitated diverse projects, not just for climate protection in the past (Interview D, 1b). Consequently, an engaged citizenship could develop that utilizes well-established participatory processes. The Masterplan laid out plans to create additional organizational and participatory infrastructure. It further recommends embedding the central role of climate protection in the municipalities' policies (Municipality D, 2, 6.4.2, 233). The "*Klima-Check*" is one measure that upholds the transparency and accountability of the administration. It aims to assess administrative activities on their efficiency

in climate protection (Municipality D, 2, 7.2.2, 279). While this is not entirely related to the participatory process, it allows citizens to keep an overview of administrative activities.

The organizational culture in Municipality D is supportive on account of the numerous channels it creates for citizen participation. In a city of its size, no statement of the general level of trust between citizenship and administration can be made (Interview D, 3c). Respectful communication at eye level encourages a trustful relationship (Interview D, 3c). In conclusion, the administration meets all demands of institutional capacity.

Table 15.

Good regional	governance D
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Adherence	Weak	Medium	Strong
Claim			
Participation is possible for any stakeholder			
Democratically legitimized decision-making			
Cooperation and negotiation			
Institutionalization			

The municipality can only meet its objectives with the support of its entire citizenry (Interview D, 2b). For some events, it is not feasible to invite every actor (Interview D, 2b). Regardless, citizens have a say in most decisions that involve them. Engagement in special events or civic organizations opens participation for any interested citizen (Municipality D, 4, n.a., 1). Participation in the Masterplanbeirat or workgroups grants citizens partial oversight over the decision-making as it provides better provision of information (Municipality D, 3, n.a., 1). The long-standing initiative by Municipality D in climate protection also ensures formal support over decision-making as local political actors stand behind the objectives. Defined processes for decision-making are also essential to secure the legitimacy and accountability in the climate protection network (Interview D, 4b). Cooperation and negotiation are essential to the work in the structure of cooperation. In the *Masterplanbeirat*, different stakeholders can cooperate to reach a consensus, at which point it serves as a consultancy to the project management (Municipality D, 3, n.a., 1). Further cooperation can occur during the specific events, be it informational events for a specific subject or the regular citizen forums on the city-quarter level (Municipality D, 1, 10.2.2. 310). Given how long-established many of these channels are, the opinions and objectives of each actor are usually already transparent.

The institutionalization of citizen engagement in climate protection was already firmly established before the introduction of the Masterplan (Municipality D, 1, 4.3.5, 92). Many structures were in place antecedently, and the concept only deepened and streamlined them with the creation of the Masterplanbeirat and the general structure of coordination. The municipality encountered issues in promoting the visibility of the concept as the general public had shown interest in climate protection before and had to be motivated anew (Interview D, 5e). Thereupon, it developed an additional concept for public relations that assisted the visibility of climate protection. Regular informational events and different campaigns continue to embed the importance of climate protection in citizens and administration (Interview D, 2b). Municipality D facilitates external institutionalization on a regional level with surrounding municipalities and Landkreise. In 2018, a regional climate summit with the participation of federal politicians led to the development of various cooperative measures (Municipality D, 4, n.a., 1). Besides cooperation on the regional level, participation in national and international networks further promotes the exchange of information and experiences between engaged municipalities (Interview D, 4c). In summary, Municipality D adheres to the principles of good regional governance to the full extent.

4.1.5 Municipality E

Table 16.

Step Measures	1. Information	2. Listening/ Consultation	3. Agreement & Behaviour Participation	4. Deciding/ Cooperating
Integration of students (Municipality E, 3, n.a., 2)				
Bioenergy park(Municipality E, 3, n.a., 4)				
Wind turbine owned by citizens cooperative (Municipality E, 1, 2.5, 9)				
Stammtisch (Municipality E, 3, n.a., 6)				

Climate protection measures C

Beginning in the early 2000s, Municipality E began to focus on communal climate protection increasingly. In 2008, it devised a climate protection concept to become climate neutral in 2030 as part of a federal competition. Since then, the municipality initiated many ambitious projects.

Perhaps the most notable project is the bioenergy park (Municipality E, 3, n.a., 4). On its ground, among other renewable energy plants, a wind park was built solely with local funds. One wind turbine belongs to a citizen organization. Hence, despite being the smallest Municipality, Municipality E has a diverse set of participation channels for citizens. Documents and the interview underline the importance of reaching out to students (Municipality E, 3, n.a., 2). The municipality educates them on their impact on climate change and what action the municipality already takes. Among other tools, the municipality utilizes two Stammtische to integrate and inform the broader public (Municipality E, 3, n.a., 6). Here, it invites citizens to learn about what they can do for climate protection and how they benefit from it. Citizens can also formulate their objectives and bring those to the administration. The wind turbine in the bioenergy park held by a citizen organization is an example of citizen activity that was supported by the administration (Municipality E, 1, 2.5, 9). The different measures also benefited the attitude in the municipality (Interview E, 3b). The bioenergy park proved that local stakeholders, including citizens, could take decisive climate protection action without relying on external investors (Municipality E, 3, n.a., 4). After more than a decade of decisive and inclusive climate protection, many in Municipality E are proud of their efforts.

Table 17

Strength	Weak	Medium	Strong
Requirement			
Sound information base			
Equitable, accountable and transparent participatory processes			
Supportive organizational culture			

Personal and financial resources resulting from Municipality Es' size might have limited its institutional capacity during the earlier stages of climate protection (Municipality E, 1, 2.6, 10). If so, this is no longer the case as it built up sufficient personal capacities; and the support of citizens and the local economy ensures financial security. A SWOT-analyses in the course of creating the 2008 concept established a sound information base. Since then, the extensive relationship between the different stakeholders deepened the municipalities' knowledge of its citizens. The provision of information is a cornerstone of climate protection. Publications on

the website, in newspapers, or during information events ensure that citizens and other stakeholders always have access to relevant information. Municipality E has extensive participatory processes. Over the past decade, administration and citizens were able to embed climate protection. *Stammtische* and similar events allow access for any interested citizen that wants to discuss a subject.

After more than a decade of participation, many citizens have become experts in their own right and have stabilized their participation (Interview E, 2b). The short communication channels in the small municipality add transparency and accountability (Interview E, 4c). The different events assure that the actors remain aware of the progress in the local climate protection. Finally, the education and integration of students mentioned above are vital to guarantee that participation can continue in the future investors (Municipality E, 3, n.a., 2). The municipalities' organizational culture is very supportive. Municipality E repeatedly accentuates that its success in climate protection relies on the successful cooperation with citizens (Municipality E, 3, n.a., 2). Citizens know that they can engage with the municipality before any crucial decision is taken. In summary, the institutional capacity in the municipality is high after the necessary steps were laid out in the concept 12 years earlier. The administration was able to secure open and accountable participatory processes and good relations with other stakeholders.

Table 18.

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Climate prote	ection measures E

Adherence	Weak	Medium	Strong
Claim			
Participation is possible for any stakeholder			
Democratically legitimized decision-making			
Cooperation and negotiation			
Institutionalization			

Participation in Municipality E is open for any stakeholder. The consensus in the population secures the democratic legitimacy of the decision-making (Municipality E, 3, n.a., 10). Furthermore, during his 20 years in office, the mayor of Municipality E was an important political actor that facilitated and supported many climate protection activities (Interview E, 2b). That citizens reelected him over that time indicates their support of the municipalities' measures. The importance of cooperation and negotiation in Municipality Es' network has

already been established. Municipality E utilizes many measures that rely on cooperation between stakeholders for their success (Municipality E, 3, n.a., 10). The municipality can only offer solutions; to implement them successfully, citizens need to cooperate (Interview E, 2b). Citizens would not necessarily aid in the implementation of ideas that felt forced upon, nor would they participate in events if they did not believe that Municipality E sincerely considered their proposals.

Municipality E highlighted the importance of networks for their work in climate protection in their concept and implemented them earnestly (Municipality E, 1, 2.6, 11). Salience and visibility of climate protection are unparalleled. Informational tours of the bioenergy park and other activities help in raising the salience of climate protection in local and external actors (Municipality E, 3, n.a., 6). Municipality Es' title "*Klimakommune*" is further evidence of the salience placed on climate protection (Interview E, 3b). The integration of all relevant actors is a relevant aspect of Municipality Es' climate activity (Municipality E, 1, 2.5, 9). It occurs through the information and motivation of citizens, as mentioned above. New topics can be integrated into the existing structures when stakeholders bring them up at a *Stammtisch* or directly reach the municipality.

Expanding participation in the sense of adding new internal actors may be difficult as Municipality E already integrated the majority of local stakeholders (Municipality E, 2, n.a., 3). Instead, the municipality introduces new formats in response to emerging subjects, like the *Stammtisch E-Mobilität* (Interview E, 2b). Local participants help in introducing vital know-how, where necessary, the municipality integrates external experts (Interview E, 2b). Municipality E engages in extensive external institutionalization. On the regional level, it cooperated with different municipalities and regions (Interview E, 6a). It also engages in various climate protection networks on the national and international scale (Municipality E, 3, n.a., 12). As part of these networks, Municipality E facilitated cooperation with American municipalities and a Japanese prefecture. The extensive cooperation goes to show how far-reaching some of the activities by Municipality E are. Consequently, Municipality E adheres to the objectives of good regional governance. Its climate protection activity is a prime example of adding regional value and raising self-sufficiency.

4.2 Analysis

4.2.1 Overview hypotheses

The thesis formulated two hypotheses. After evaluating the documents of the different municipalities, they can be rejected or supported. Afterward, the influence of the selection criteria is analyzed.

Hypothesis 1 states: Municipalities with strong institutional capacities will have more developed climate protection measures regarding citizen participation than municipalities with weaker institutional capacities. As the document analysis shows, all five municipalities had relatively comparable capacities. The three criteria to determine institutional capacities were fulfilled in each case. There was variation in the importance and procedure of collecting information. For small municipalities like Municipality A and Municipality E, the collection of information was less acute with few and already well-established actors. In contrast, Municipality C had relatively little knowledge regarding the different actors when it started its climate protection activity and relied on interviews with local knowledge-carriers to establish it. The two remaining larger municipalities depend even more on information collection, given the number of actors. Studies during the development of concepts and continuous work during its implementation were necessary. There is less variation in the provision of information and participatory processes. Between local newspapers, flyers on their website and information on the websites, the municipalities utilize similar channels to provide information and secure equity. Citizens can directly reach each municipality. Additionally, all municipalities underline the importance of being transparent towards citizens.

In part due to the proclaimed transparency, all municipalities see mutual trust between citizens and the administration. Notably, the smaller municipalities were quick to confirm that they had a good relationship between citizens and administration. The mid-sized Municipality C said it generally did so, while it could not avoid some troubles at its size. The respondents for both larger municipalities said that, while they worked transparently and respectfully with citizens, a general answer was not possible, but would require a survey.

Documents and interviews revealed that the success of climate protection in the municipalities certainly depends on having adequate capacities to work with citizens. Consequently, even without a poor practice-case within the selected municipalities, the first hypothesis can be confirmed.

Hypothesis 2 states: *Municipalities with a higher degree of "good regional governance" will have more developed climate protection measures regarding citizen participation than municipalities with weaker institutional capacities.* As has already been addressed, all municipalities offer open participation. The only variation lies in the two largest municipalities offering events with complex subjects that are only accessible for invited actors. Otherwise, any interested citizen can participate in the five municipalities. The respondents in each municipality stated that local political and civic actors support their climate protection measures, which legitimizes their activity. Beyond this, the legitimacy of decision-making is secured differently between the municipalities. Municipality A employs a unique steering group supplemented by its external consultant. Citizens have an indirect influence on this group through their ability to vote on the political actors comprising it. Municipalities B and D brought different civic actors together in their respective B*eirat*, where they can remain informed of the progress in climate protection. In Municipality E, the reelection of the mayor for 20 years reinforces the citizens' support of the local decision-making.

Cooperation and negotiation are essential to the climate protection activities of all municipalities. Each municipality offers regular chances for cooperation in forums. The necessity to have the support of the entire local citizenry for the municipalities' climate protection reiterates the relevance of cooperation. Likewise, the municipalities address all criteria of the internal institutionalization. They make efforts to raise the salience and visibility of climate protection. Afterward, they integrate new topics like electromobility and get interested citizens on board. Expanding participation is less of an issue in smaller municipalities like Municipality E that already have a majority of the existing actors integrated. Where applicable, the municipalities still expand their participation. While all practice it to some sort, the level of external institutionalization shows the most variation between municipalities. All municipalities except for B participate in local permanent workgroups, where they coordinate with actors of close by administrations. Furthermore, municipalities B, D, and E are part of different national and international networks. These networks promote the exchange of experiences in administrations with different backgrounds. For the municipalities without such participation, no adverse consequences emerged. Given that those are the municipalities with the shortest time being active, maybe further external institutionalization will become salient in the future.

The answer to this hypothesis is identical to that of the first. None of the municipalities showcase a lack of adherence to good regional governance. Documents and interviews reiterate the importance of the different points that define good regional governance. Thus, the thesis concludes that it is essential for the success of local climate protection to adhere to the claims of good regional governance.

4.2.2 Selection criteria

While not part of the hypotheses and research questions, the findings indicate that the selection criteria also have an impact on climate protection in the municipalities. These findings are described here.

4.2.2.1 Population size

All interview respondents were quick to highlight the advantages of their municipalities' size. The smallest municipalities Municipality A and E, emphasized the advantages of the close relations between actors that are only possible in small localities. Especially in Municipality E, a significant percentage of citizens support and participate in climate protection activities. In smaller, homogenous municipalities, this level of support may be more comfortable to achieve. The larger municipalities underscore the advantages of having many citizens that bring forth their ideas and solutions. By supporting these citizens, the municipalities can utilize a diverse set of measures that they would not have devised on their own. As a mid-sized municipality, Municipality C still has relatively close relations with its citizens. As visible in *Stadtradeln*, the municipality is successful in encouraging participation in its population. As no municipality express having any disadvantages due to their size, the thesis concludes that each population size brings advantages that can be utilized by the municipality.

4.2.2.2 Evidence of activity

The administration's climate-protection efforts proved valuable to successful climate protection. All municipalities accentuate their role-model function. This function manifests in increased visibility and awareness of climate protection by citizens once the municipality started to take action. One such example occurred in Municipality E during the creation of a local heat network. Already during the early stages of building this network, citizens showed interest in the municipalities' activities and were more open to measures in the future. All municipalities described that climate protection benefits from this process. These findings indicate that, to a certain degree, sincere action by the municipality encourages citizen participation.

4.2.2.3 Federal state

There are not many findings regarding the impact of the federal state on the municipalities' climate protection. Generally, the federal state is responsible for setting the framework in which municipalities operate through their political decisions. They also subsidize programs, which assists municipalities in establishing their climate protection. In North-Rhine Westphalia, both Municipality B, and E, with long-established climate protection activity, are somewhat dissatisfied with the route that the current federal government is taking (Interview B, 5f). While they have no issues with subsidies, they are critical of political developments on the level of state or country. One example is the discussion over the distance between wind turbines and residential homes that Municipality E, in particular, sees as not expedient (Interview E, 5g). It also plays no distinct role in the integration of citizens. Municipality A, with its shorter involvement, was more positive regarding the support of the federal state (Interview A, L. 219-222). Both Lower-Saxon municipalities have a positive attitude towards their federal state (Interview C, 5d). Beyond the financial aid, the federal-state also provides tools for citizen engagement and carries out a role-model function itself (Interview D, 5f).

5.1 Conclusion

In the concluding chapter, the thesis uses the results of its analysis to provide an answer to the research questions. The thesis ends with suggestions for further research and policy recommendations.

5.1.1 Overview research questions

The first subquestion asks: *What climate protection measures are municipalities facilitating or supporting?* The findings indicate the municipalities utilize a variety of measures that appear at different steps of the participation ladder. The answer to the question includes measures highlighted in interviews or documents or that are otherwise interesting. No municipality makes a distinction between formal and informal participation. Each is willing to offer support to citizen-led initiatives.

All municipalities utilize measures that inform citizens. Municipalities usually promote the information via their website or that of its cooperation partners; or through coverage in local media. Low-threshold participation aims to inform citizens without drive or ability to participate in simple measures they can utilize to become more climate-friendly. Informing students is

another high-profile objective for each municipality. This measure can be placed on the first two steps of the ladder. Usually, after being informed, students get a chance to devise their ideas for climate protection and discuss them. Introductory sessions during the development of concepts, often coupled with workshops, can be placed on multiple steps of the ladder. First, they allow the administration to provide information to citizens and other stakeholders. During the accompanying workshops, the municipality can consult citizens on their opinion or cooperate and integrate the citizen's input. Citizens' forums and focused events secure regular communication between actors. Remarkably, several municipalities conduct additional citizen forums specialized in mobility that focus on promoting electric cars and bicycles.

Municipalities also employ measures that intensify the contact between administration and citizens. Municipalities A, C, and D participate in *Stadtradeln*. Especially in Municipality C, this encourages an exchange between the different actors and promotes using environmentally friendly means of transportation. *Frühjahrsputz* and urban gardening are similar measures that promote climate-friendly action and strengthen the solidarity within the municipality. These measures can be placed on the third step of the ladder, as they encourage agreement and more conscious behavior in all participating actors. All municipality also offers support to informal participation. They do so by offering their know-how to citizen-led initiatives or increasing the initiatives range, for example, by presenting them on its website. The bioenergy park of Municipality E is a notable example of cooperation between citizens and administration. By relying entirely on local investors and partially handing ownership directly to citizens, it is an impressive example of local climate protection. All municipalities agree that they must integrate citizens as early as possible in their decision-making. They also do not note any differences in the degree of participation between stages in the policy cycle. Instead, citizens should have a say in decision-making processes.

In sum, each municipality facilitates and supports a variety of climate protection measures. These encompass measures from informing citizens of low-threshold participation to engaging in intensive cooperation measures.

The second research question asks: *Do municipalities with different institutional capacity, and regional governance use different climate protection measures to engage civic communities*? There are no findings of any municipality exhibiting weak institutional capacities or not adhering to good regional governance. Nevertheless, the documents and interviews demonstrate the importance of particular requirements for municipalities to be successful in climate protection. Regarding institutional capacity, each municipality underlines the importance of being transparent and credible towards other stakeholders. These will only participate if they trust in its ability to provide fair, participatory processes. Each municipality accentuates the fiduciary role of the administration in interlinking the relevant actors. It rarely acts as the driving force in climate protection. Instead, it functions as a negotiator between the
different actors and can steer the overall process by setting a framework. Thus, it is apparent that municipalities require strong institutional capacities and adhere to good regional governance to carry out their climate protection measures successfully.

The main research question was: How do German Euroregion municipalities try to involve citizens in shaping and implementing climate protection within their municipalities? The findings very clearly indicated that involving citizens in their climate protection measures has a high priority in each municipality. Municipalities try to involve citizens by informing them of their potential impact on climate protection and offering channels of participation. Especially in working with climate-conscious citizens, they made almost only good experiences. The vast number of measures compiled in this thesis - that could still be expanded especially for both larger municipalities - proves how diverse participation in municipalities can be. Administration and citizens learn from each other and advance climate protection. The most notable drawback is that different municipalities indicate difficulties in reaching citizens less conscious of the municipalities' climate protection measures. Here, a quick solution is the promotion of low-threshold measures that any citizen can conduct. In the long-term, the education of students and similar groups is indented to embed the importance of climate protection in prospective actors. The increasing awareness of climate protection in the younger age group, as visible with the Friday-for-Future movement, may indicate that these measures bear success, and more citizens will participate in the future. Only Municipality E did not report on difficulties in achieving broad support. Arguably, it may be easier for this small and relatively homogenous municipality to secure the support of the majority of citizens. In any case, other municipalities could perhaps learn from its experiences with the bioenergy park and the close cooperation between administration and citizens in its establishment.

5.2 Discussion

The results of the thesis are promising for future developments in local climate protection. Each municipality agrees on the significance of citizen participation and describes a variety of measures to facilitate it. Further research could look at individual measures and uncover how best to utilize them. All five municipalities had good experiences with participation and had adequate structures for integrating citizens. Research that includes municipalities with mixed experiences might reveal more about the influence of institutional capacities and good regional governance on local climate protection. The role model function of municipalities towards citizens might also be an exciting subject. How can inexperienced municipalities utilize this function and take credible and inspiring action? Another issue that multiple municipalities

remarked was the difficulty of reaching generally less climate-conscious actors. Especially the effectiveness of low-threshold measures might be interesting in this regard. Do they help to inspire change in the general public, or are municipalities better off searching for different measures to reach non-climate conscious citizens? The issue of reaching citizens not as inclined to participate arises in all fields of citizen participation. But as reaching the climate protection objectives requires the combined activity of all local actors, it is even more salient in this field.

Consequently, research that establishes how to reach every actor within a municipality could prove very valuable. The findings prove that decisive action pays off in local climate protection. Lighthouse projects like the bioenergy parks embed climate protection in local actors and encourage exchange on the regional to international level. Each municipality highlights the significance of offering credible communication. Citizens only participate if they are met on eye level, and their input is taken seriously. The thesis shows that climate protection and citizen participation go hand in hand. For municipalities hitherto not active, establishing the structures for local climate protection and developing concepts, all the while integrating citizens, might seem like a challenging task. The municipalities in this thesis prove that when operating open and transparent, good experiences in climate protection are more than likely. Furthermore, municipalities are better prepared for the challenges of climate change in the future and can strengthen social cohesion. Thus, efforts in integrating citizens in climate protection are not an exhausting necessity, but they benefit every actor within the municipality both short- and long-term.

6. References

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7. Annex

A1 list of consulted documents

Document Municpality	1	2	3	4	5
A	Integriertes Klimaschutzkonzept der Glockenstadt A 2019				
В	Klimaanpassungs- konzept 2015	Strategie für klimaschonende Entscheidungen 2017	Masterplan 100% Klimaschutz 2017	Klimanotstand – Sofortmaßnahmen der Stadt B 2019	Stadt B – Masterplan 100 % Klimaschutz 2020
С	Kommunales Klimaschutzkonzept 2014	Kommunales Klimaschutzkonzept Maßnahmenkatalog 2014	Zwischenbericht I Klimaschutzmanagement der Stadt C 2015	Zwischenbericht II Klimaschutzmanagement der Stadt C 2016	
D	Maßnahmenpaket zur CO2-Reduktion für die Stadt D 2008	Masterplan 100 % Klimaschutz D 2014	Masterplan Klimaschutz Grafik Zusammenarbeit 2014	Spannungsreich, intensiv und gelungen – der Klimagipfel und seine Ergebnisse 2018	
E	Gemeinde E Integriertes Klimaschutz und Klimaanpassungskonzept 2008	E Projektbroschüre 2018	Eine Gemeinde auf dem Weg in eine klimafreundliche Zukunft 2018		

A2 Coding table

Theory	Concept	Code heading	Code
Good	Participation	Openness	Multiple actors participate
Regional Governance			Process open for many participants
	Legitimate decision making	Formal support	Formal political support
			Good position of administration
			Incentives for participation
		Mechanisms of oversight	Steering and oversight by workgroups
			Steering and oversight by administration
		Citizens as rightful power-holders	Citizens as relevant actors
	Cooperation and negotiation	Consensus orientation	Agreeing on concept goals
			Meeting with stakeholders to achieve
			the best solution
			Communication between actors
			Awareness of potential conflicts
		Transparency of participants	Transparency to trigger innovation
			Information exchange in the network
			Transparent communication
	Institutionalization	Internal Institutionalization	Actors already dealing with climate
			protection
			Foundation for communication

	Climate protection as a joint effort
	Stabilization
External institutionalization	Inter-communal exchange
	Regional exchange
	Federal exchange
Salience and visibility	Make events known
	Salience in the administration
	Raising salience for citizens
	Make information known
	Citizens show interest in climate
	protection
	Role model function
Integration of topics and actors	Formulating ideas together
	Informing interested actors
	Integration of target groups
	Motivating interested actors
	Citizens as consumers, not participants
Expanded participation	Expand the circle of participants
	Expand ways to participate
Efficient process management	Use experts to start the process

			Line out concept progress in detail
Institutional Capacity	Sound information base	collection and provision of relevant local data	Increased provision of local data
			Collection of local data
	Open participatory process	standardized and equitable means of identifying stakeholders	Highlight specific target groups
		open and accountable processes for citizen integration	Sufficient network building
			Integration of students
			Embedding climate protection
			Coordination of different actors
			Reducing obstacles
			Flexible approach
		community capacity building program which facilitates citizen participation	Centralized Contact point
			Structure and coordinate public relations
			Internal recalibration
			Increase participation
			Financial capabilities
			Personal capabilities
			Increase self-sufficiency
		Project and process evaluation	Controlling

			Progress reports
			Obstacles in moving forward
	Supportive organizational	Addressing a lack of trust	Transparency for trust
	culture		Make people believe you will support them
Citizen participation	Type of participation	Different types of participation	Improved policy process through engagement
			Participation for citizen motivation
			Different intensity of participation
			Citizen-owned energy production
			City-wide participation
			Area-level of participation
			Low-threshold participation
	When in the policy process	The stage in the policy process	Early engagement

A3 Interview questions

Theme	enkomplex	
1. Beginn		Was ist Ihre Rolle in der Klimaschutz-Arbeit der Gemeinde?
		Welche Erfahrungen hat man mit der Implementierung des Konzepts in
		Bezug auf Bürgerbeteiligung gemacht?
		Wie aktuell sind die Informationen aus dem Klimaschutzkonzept Ihrer
		Gemeinde in Bezug auf die Maßnahmen zur Bürgerbeteiligung?
2.	Bürgerbeteilung	Inwiefern ist Bürgerbeteiligung entscheidend für den Erfolg der lokalen
		Energiewende?
		Welche Arten der Bürgerbeteiligung werden genutzt? Findet Engagement
		und/ oder Partizipation statt (Von Gemeinde eingefädelt oder unabhängige
		Beteiligung)?
		Spielt die Phase des Entscheidungsprozess eine Rolle im Grad der
		Einbindung?
3.	Institutionelle	Welche Bedeutung hatte das Sammeln von Information über Bürger und
	Kapazität	spezifische Zielgruppen zu Beginn der Konzeptumsetzung?
		Wie wird ein offener und gleicher Teilnahmeprozess sichergestellt?
		Gab es von Anfang an ein gutes Vertrauensverhältnis zwischen Verwaltung
		und Bürger? Wenn nicht, welche Schritte wurden unternommen um dieses
		Verhältnis herzustellen?
4.	Good regional	Wie erhalten verschiedene Interessengruppen Zugang zum
	governance	Beteiligungsprozess?
		Welche formellen Mechanismen sichern die Legitimität der gemeinsamen
		Entscheidungsfindung im Netzwerk?
		Welche Rolle nimmt die Gemeinde in der Vernetzung der relevanten Akteure
		ein?
		Welche Bedeutung hat das Thema Energiewende in der Verwaltung und bei
		Bürgern?
5.	Ortsgebundene	Municipality A
	Fragen	Als Gemeinde mit dem zuletzt erschienen Konzept: Wie gestaltet sich
		die Bürgerbeteiligung in der frühen Phase der Implementierung?
		Municipality B
		Welche Maßnahmen ergreift die Stadt um Studenten zur Beteiligung
		zu motivieren?

Abschluss	Gibt es etwas das ich vergessen habe?
	Bürgerbeteiligung in der Energiewende?
	Welche Bedeutung spielt die Landesregierung in Ihrer Arbeit zur
Aufmerksamkeit der Bürger?	
	Welche Auswirkungen hatte die Erstellung des Konzepts auf die
	Welche Vor- und Nachteile ergeben sich aus der Größe der Gemeinde?
	in der Energiewende so weiterführen oder anders machen?
	Was würden Sie im Rückblick in der Implementierung der Bürgerbeteiligung
	Was würden sie anderen Gemeinden für diesen Prozess empfehlen?
	Welche Maßnahmen haben den Erfolg ermöglicht?
	Bürgerbeteiligung in der Energiewende gelernt?
	 Was hat Ihre Gemeinde in den letzten 14 Jahren zur
	Municipality E
	zu motivieren?
	Welche Maßnahmen ergreift die Stadt um Studenten zur Beteiligung
	zwischen dem Maßnahmenpaket und neueren Konzepten?
	• Wie vollzog sich der Wandel in der Bedeutung von Beteiligung
	Municipality D
	Nachbargemeinden, weniger Förderung)?
	Kreis mit Klimaschutzkonzept zu sein (weniger Kooperation mit
	Hat es einen Einfluss auf die Implementierung, der einzige Ort im

A4 Translation table

German	English
Klimaschutzkonzept	Climate protection concept
Masterplan-Kommunen 100% Klimaschutz	Masterplan-municipalities 100 % climate protection
Landkreis	District/ county
Klimamischpoke	Climate society
Klimabeirat	Climate advisory board
Stadtradeln	City cycling
Frühjahrsputzaktion	Spring-cleaning
Runder Tisch CO2	Round table CO2
Masterplanbeirat	Masterplan plan advisory board
Klima-Check	Climate check
Stammtisch	Regulars' table
Klimakommune	Climate municipality