

A Tale of Three Cities

A comparative analysis of climate policy formulation in Swedish municipalities

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Abstract

The adage “think global, act local” can be a fitting description of how to address climate change. Municipalities are often responsible for implementing the measures required to reduce greenhouse gas emissions and shift to a more climate-neutral development trajectory. However, there is a vast spectrum of municipal ambition regarding climate, and not all municipalities manage to have robust and ambitious climate policies. Sweden is a country that both has ambitious climate goals and affords a high amount of autonomy to local-level governing bodies. This thesis investigates how municipalities in Skåne, Sweden develop policies to address climate change, with a focus on how they approach the national “reduced climate impact” environmental quality objective. It seeks to unveil the conditions that enable ambitious climate policy at the municipal level by comparing Hässleholm, Vellinge, and Kristianstad, which exhibit many similar characteristics but have varying levels of climate policy success – which I define as having in place an ambitious and robust program to reduce climate impact.

The theory of governmentality provides a lens through which to analyze my results. Via a coding process, I categorize the results for each case into the three components of governmentality: problematization, regimes, and endpoint. I look for similarities and differences across cases that could correspond with the municipalities’ levels of success, paying particular attention to characteristics that are present in Vellinge and Kristianstad but absent in Hässleholm. I then synthesize these findings and present them in their order of significance in determining climate policy success.

This research suggests that the features most influential in enabling ambitious climate policy are driven individuals, a clear organizational structure, a strategic approach, and having clear political motivations such as a vision or reputational ambitions. A sense of municipal responsibility to address climate change and maintaining harmonized, up-to-date policy documents also have a notable influence. Public awareness of climate change impacts, membership of trans-municipal networks, and a desire for economic benefits associated with climate action seem to play a minor role in shaping municipal climate governance. Climate awareness amongst companies and being a signatory of a voluntary initiative to eliminate fossil fuels do not seem to impact climate policy success. This study contributes to sustainability science by offering insights on policymaking that could enhance coordination between multiple stakeholders and levels of governance as they seek practical solutions to the complex challenge of climate change.

Keywords: *Skåne, climate policy, municipal decision-making, MSDO, reduced climate impact*

Word count: 13,778

List of Abbreviations

CAB	County Administrative Board
EQO	Environmental Quality Objective (own abbreviation)
EU	European Union
GHG	Greenhouse gas
MSDO	Most similar, different outcome
NGO	Non-governmental organization
UNFCCC	United Nations Framework Convention on Climate Change

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1 Introduction

Climate change is not a distant specter looming on the horizon; it is a present-day phenomenon with increasingly severe impacts occurring throughout the globe. In addition to adaptation and resilience, there remains an urgent need for mitigation – tackling the root causes of the problem instead of only treating its symptoms. However, despite growing consensus on the causes and effects of climate change, as well as some understanding of how to address it, at the global level greenhouse gas (GHG) emissions continue to increase (IPCC, 2014). In the absence of effective international climate action, a growing number of municipalities are taking the initiative to act on their own, whether on an individual basis, in partnership with other towns and cities, or as part of international collaborations (Bulkeley, 2010).

Local-level governance can exert great influence on the state of the planet: On one hand, cities – governed by municipalities – are concentrations of GHG emissions,¹ natural resource consumption, and waste, and their negative environmental impacts tend to extend well beyond their borders (UNEP, 2012; Anderberg, 2012; Grimm et al., 2008). On the other hand, they also often contain the innovation, human capital, financial resources, and policymaking opportunities required for effecting change, and are therefore well poised to take the lead in shifting society to a more sustainable trajectory (UNEP, 2012). A focus on the local context is important regarding climate and sustainability because this is where tangible climate action is taken, where climate policies are implemented, and where climate change impacts are frequently felt the most (Koglin, 2009). Local authorities typically “construct, operate and maintain economic, social and environmental infrastructure, oversee planning processes, establish local environmental policies and regulations, and assist in implementing national and subnational environmental policies” (Agenda 21, Chapter 28).

Sweden is a country that both has ambitious climate goals and affords a high amount of autonomy to local-level governing bodies. Like many other parts of the developed and developing world, Sweden is urbanizing, with the percentage of rural inhabitants decreasing from 70% to approximately 15% over the past century (European Union, 2002) and a population simultaneously increasing from 3,000,000 to 9,000,000 between 1900 and 2004 (Statistics Sweden, 2013). Municipalities are key

¹ 70% of GHG emissions are associated with cities, though cities occupy 2% of Earth’s surface (UN-Habitat, 2011).

² The Swedish economy grew by 48% between 1990-2007, while GHG emissions dropped by 9% (ICLD and SKL

actors in managing urban areas; the urbanization trend suggests a need for well-executed policies in order to allow for development while minimizing negative impacts on climate and the environment.

1.1 Research Aim

This thesis investigates how municipalities in Skåne, Sweden formulate policies to address climate change, focusing on the national “reduced climate impact” environmental quality objective. It seeks to unveil the conditions that enable ambitious climate policy at the municipal level by comparing Hässleholm, Vellinge, and Kristianstad, which exhibit many similar characteristics but have varying levels of climate policy success – which I define as having in place an ambitious and robust program to reduce climate impact. Through my research, I aim to understand the factors that are most influential in achieving successful local climate policy. I concentrate on how policies are crafted as opposed to implemented, and focus on climate change mitigation rather than adaptation.

Primary research question: Which factors influence local climate governance in Skåne?

I developed the following sub-questions to guide my research:

- 1) How do national and regional climate ambitions influence municipal policy decisions?
- 2) How do municipalities develop and approve climate-related policy?
- 3) Why are some municipalities more successful than others in putting in place ambitious climate policies?
 - a. What are the drivers?
 - b. What are the barriers? (How) have they been overcome?
 - c. What factors do the successful municipalities share that the less-successful municipality lacks?

My aspiration is that this research will benefit municipal actors that play a role in climate governance, by revealing factors that most impact success as well as features that are less influential, and by describing the contexts in which these factors operate.

2 Background

This section presents a brief background on Sweden, the region of interest, and the three cases, providing the context in which municipal climate governance occurs.

2.1 National Context: Sweden

Sweden ranks among the highest in Europe in terms of environmental sustainability and has been called a “driving force” for sustainability in the EU (Lieverink and Andersen, 1998). Swedish climate targets are more ambitious than those of the EU, aiming for 40% GHG emissions reduction by 2020 compared to the EU’s 20% (ICLD and SKL International, 2011; Ministry of the Environment and Ministry of Enterprise, Energy and Communications, 2009). Sweden also lists “reduced climate impact” as the first of its 16 national Environmental Quality Objectives (EQOs), which were adopted by the Swedish Parliament and constitute the basis of environmental work across the country (Swedish Environmental Protection Agency, 2012). Sweden aspires to be a role model of environmentally sustainable modern society, achieving economic growth in harmony with the Earth (Ministry of the Environment and Ministry of Enterprise, Energy and Communications, 2009). Despite a growing urban population and continued economic growth, Sweden’s production-related GHG emissions have decreased, partly due to more district heating and less fossil fuel use, though consumption-related emissions continue to grow (ICLD and SKL International, 2011).²

“Concrete local initiatives” are needed to achieve the targets of various national climate-related policies (ICLD and SKL International, 2011). The country’s largely decentralized governance structure affords a great deal of responsibility and autonomy to local-level governing bodies, including the 23 County Administrative Boards (CABs) and 290 municipalities. CABs are responsible for placing the national EQOs in a regional context, while it is up to individual municipalities to implement the objectives locally.

2.2 Regional Context: Skåne

Located at the southern tip of Sweden, Skåne is a populous region that contains some of the area’s richest agricultural land (Anderberg and Clark, 2012). Skåne also belongs to the Öresund region, which includes parts of Denmark and constitutes “the largest and most densely populated urban region in Scandinavia³” and continues to grow in terms of both population and economy (Anderberg

² The Swedish economy grew by 48% between 1990-2007, while GHG emissions dropped by 9% (ICLD and SKL International, 2011). 80% of Swedish production-related GHG emissions stem from transport, buildings, and industry, with agriculture accounting for most of the remainder, while consumption-related emissions are 80% from private consumption and 20% from public consumption (ICLD and SKL International, 2011).

³ The Öresund region contains “3.7 million inhabitants in an area of 7,988 square miles (20,689 square kilometers)” (Anderberg and Clark, 2012).

and Clark, 2012). Despite this growth, Skåne is experiencing a decrease in GHG emissions (Länsstyrelsen Skåne, Begränsad klimatpåverkan), in line with the national trend.

Skåne has a number of opportunities to improve its climate change mitigation efforts, particularly regarding renewable and efficient energy such as wind-power, biogas, and district heating. The region's primary sources of CO₂ emissions are traffic (nearly 50%), energy (nearly 25%), and industry (nearly 25%) (Länsstyrelsen Skåne, Begränsad klimatpåverkan). In 2003, Skåne's CAB developed a regional EQO document and corresponding action plan. Länsstyrelsen Skåne, the CAB, is responsible for cooperating with Region Skåne, municipalities, non-profit organizations and the private sector to achieve these regional objectives, which were updated in June 2013 (Länsstyrelsen Skåne, Skånes miljömål).

2.3 Local Context: Municipalities

Swedish municipalities have a high amount of responsibility and autonomy. Local-level governance can have a significant impact on how municipalities address climate, environment, and sustainability challenges.⁴ Sweden's "municipal planning monopoly creates favorable conditions to adopt a more holistic approach" to sustainability-related issues (ICLD and SKL International, 2011, p. 50). Municipalities and regional authorities often play a big role in energy, transport, renewable energy and energy efficiency, climate-friendly spatial planning and development, determining requirements, and public participation (ICLD and SKL, 2011). For instance, the influence of local-level authorities has been noted in studies on renewable energy transformations in Sweden (Mårtensson and Westerberg, 2007). However, not all municipalities achieve the same level of success: "the character, structure, organization and operation of urban centers determine how easy or difficult it is to reduce emissions" (ICLD and SKL International, 2011, p. 50).

2.3.1 Cases

In an effort to understand the factors that determine the level of ambition Swedish municipalities are able to achieve regarding climate policy, I conducted a comparative analysis of three municipalities in Skåne. I intentionally selected municipalities with many common characteristics except for their

⁴ A SALAR survey of municipalities and county councils/regions shows that in Sweden 52 percent of municipalities have, and 28 percent plan "cross-sector action plans for reducing emissions," 70 percent of county councils/regions "have action plans and targets and 20 percent were working on them" (SALAR, 2009, p. 5).

climate policy success. In addition to sharing a geographical region,⁵ all three cases – Hässleholm, Vellinge, and Kristianstad – have populations of less than 82,000 and are Klimatkommunerna⁶ members, indicating at least some degree of interest and progress regarding climate work.

Hässleholm

Hässleholm is a relatively sparsely populated 1,276-km² municipality with approximately 50,400 inhabitants and large tracts of forests and lakes (Hässleholms kommun, 2015). Though it merged with neighboring municipalities in 1974, the community dates back to the 1860s, when it was established along a railway line (Hässleholms kommun, 2015a). Hässleholm has since become a major transport and logistics hub in the region (Hässleholms kommun, 2010). It encourages business development and hosts many small- and medium-sized companies working with agriculture, metal, wood, furniture, construction, and IT (Hässleholms kommun, 2010). Despite a growth in per capita energy use, with transport being the biggest energy consumer, GHG emissions have decreased due to more widespread district heating, biofuels, and heat pumps (Hässleholms kommun, 2010).

Though in 2009 Hässleholm was ranked as Sweden's 10th best eco-municipality (Miljöaktuellt, 2009) and is a signatory of Fossil Free Skåne, it now faces challenges with climate and environment work, particularly regarding policy. The municipality's most recent environmental objectives document and energy and climate plan are from 2010.

Vellinge

Located along Sweden's southwestern coast, Vellinge has an area of 143.2 km² and approximately 33,500 inhabitants (Vellinge kommun, 2012a). The present-day municipality was established 1974, when Vellinge merged with three neighboring municipalities (Vellinge kommun, 2012a). It has the second-highest per capita income in the region (Vellinge kommun, 2012a) and is a commuter municipality for Malmö (Vellinge kommun, n.d.) – home to many inhabitants who prefer a more spacious, rural lifestyle compared to the dense, urban feel of Sweden's third-largest city.

Given its geography, Vellinge's primary climate change concerns are sea-level rise, erosion, flooding, and drinking water quality. Single-family homes, which make up 83% of the municipality's dwellings (Vellinge kommun, 2012a), and transport account for 70% of energy consumption in Vellinge, while transport also is responsible for 55% of the municipality's GHG emissions (Vellinge kommun, 2014a).

⁵ See Appendix 5 for a map of Skåne.

⁶ See Appendix 4 for a brief description.

These two sectors therefore have great potential for reduced climate impact via increased energy efficiency and renewable energy sources. Although Vellinge currently does not produce its own renewable energy, municipal documents state the need to research possibilities for doing so.

The city council adopted local environmental objectives in 2008 and a corresponding action program in 2009. A revised version of the objectives was approved in 2014. Vellinge is not a signatory of Fossil Free Skåne.

Kristianstad

Founded in 1614, Kristianstad contains 81,000 inhabitants in an area of 1,346 km², making it the largest municipality in Skåne in terms of surface area (Kristianstads Kommun, n.d.). It is located close to the Baltic Sea, between Araslövs and Hammar Lakes, which are joined by the Helgeå River. It has the lowest elevation in Sweden, with some areas below sea level (Nordregio, 2008). Another distinguishing feature is Kristianstads Vattenrike Biosphere Reserve, which serves as a protected area for rich biodiversity and wildlife, especially birds.

Kristianstad has long been active in the climate arena. The municipality has been involved with Klimatkommunerna from the start and is a signatory of Fossil Free Skåne. It has also gained some international recognition for climate and sustainability work. Kristianstad's most recent climate strategy is from 2011, with the updating process just now beginning. The municipality is also well underway with updating an environmental plan from 2007.

3 Theoretical Framework

The following sections explain this study's theoretical underpinnings, locating this research in sustainability science and describing the analytical framework offered by governmentality.

3.1 Contribution to Sustainability Science

Crafting and implementing effective climate change mitigation policy at any level of government is the type of sustainability challenge that requires expertise from both the natural and social sciences and cooperation between a vast array of stakeholders. Planners must simultaneously address the environmental, economic, and social aspects of sustainability, and they need to balance trade-offs (Koglin, 2009). Sustainability science serves as a bridge between natural and social sciences, and seeks "creative solutions to complex challenges" (Jerneck et al., 2010) by bringing in multiple disciplines and taking a combined critical and problem-solving approach (Jerneck et al., 2010; Kates

et al., 2001). Sustainability science is problem-driven (Kates et al., 2001) and solutions-focused (Clark and Dickson, 2003). It seeks to connect science to a political agenda, with a concentration on nature-society interactions and transformational change towards a sustainable trajectory (Kates et al., 2001; Clark and Dickson, 2003). This thesis contributes to these aims by looking at the local-level policies that shift municipalities toward a more climate-neutral way of operating, focusing on the factors that influence policy success. I place my findings in the context of municipal policymaking in Sweden, recognizing the connections between multiple levels of governance, the influence of different actors, and the role of the political agenda.

3.2 Governmentality

I use governmentality as a lens through which to analyze my results. This approach is appropriate since it works well as an assessment framework rather than a predictive mechanism (Dean, 2010). I attempt to assess the processes by which municipalities develop climate strategies and the factors that influence their success. Others have used governmentality as a heuristic to support investigations of the process of how strategies are formulated around issues such as climate and sustainable development (Frame and Bebbington, 2012), which is what this thesis seeks to do at the municipal level in southern Sweden.

More specifically, governmentality seeks to answer questions of how one governs and is governed, and conditions under which regimes emerge, operate, and are transformed (Dean, 2010, p. 42). It is concerned with regimes of practices, which have to do with how thought operates within organized ways of doing things and the production of knowledge (Dean, 2010). It employs an “analytics of government,” which “examines conditions under which regimes of practice come into being, are maintained and transformed” (Dean, 2010, p. 40). This approach starts with looking at how regimes of practice are problematized by programs. Programs deliberately seek to change something, to “invest [the regimes of practices] with particular purposes” (Dean, 2010), as a climate policy seeks to reduce a municipality’s climate impact.

Governmentality can help to evaluate the dominant governance regime in a given case (Frame and Bebbington, 2012). It pays particular attention to three components: problematization regarding human behavior, detailed regimes, and a utopian ideal endpoint (Dean, 2010; Frame and Bebbington, 2012). In this study, the problematization is a number of practices take place within the geographical borders of municipalities that contribute to climate change (many of which the municipal administration has the power to regulate). Regimes in this context can include knowledge, techniques, practices, and identities (Frame and Bebbington, 2012) regarding urban planning,

municipal decision-making, and sustainability. The utopian ideal endpoint here is a climate-neutral municipality, which will contribute to global-level climate change mitigation and reduced pressure on the environment.

4 Methodology

To apply this framework to my research questions, I considered how the cases perceive the problem of climate change, how they attempt to address it via programs and regimes, and how their motivations and strategic approaches impact their ability to work towards the utopian ideal endpoint. The following sections describe the case selection and data collection and analysis methods.

4.1 Case Selection

The basis of this study is comparative research (Przeworski and Teune, 1970) composed of case studies, in which I conduct a qualitative analysis on three cases with the aim of better understanding municipal climate planning in Sweden (Seawright and Gerring, 2008). Case studies are useful for answering “how” and “why” questions and for understanding decisions (Yin, 2009), as with governmentality. Cases, individual municipalities in this instance, are understood as bounded systems studied in a “real-life, contemporary context” via multiple sources of information (Creswell, 2013, pp. 97-99).

This type of comparative design aims for theoretical replication by comparing cases with different outcomes (Yin, 2009). It assumes a “most similar, different outcome” (MSDO) approach, believed to be appropriate for studies with a small number of cases (Przeworski and Teune, 1970; Seawright and Gerring, 2008; Rihoux, 2006). Using purposive sampling (Bryman, 2012), I therefore select cases that are as similar as possible except for their performance regarding climate and sustainability work. This enables me to investigate possible explanatory variables and search for “theoretically significant differences among similar systems” (Przeworski and Teune, 1970, p. 39) that can help explain the conditions that lead to ambitious municipal climate policy.

Hässleholm, Vellinge, and Kristianstad constitute the basis of my research and comparison. All three municipalities are Klimatkommunerna members in Skåne. Hässleholm is perceived as needing improvement in climate and sustainability planning. Vellinge is considered a recent success, having transitioned to a greater focus on climate matters over the past several years. Kristianstad represents a success, with a history of ambitious climate and sustainability work.

4.2 Methods

The three components of governmentality – problematization, regimes, and endpoint – inform the data collection and analysis process. To structure interview questions in a logical way and to make the questions more easily comprehensible, I develop four categories that contain elements of the governmentality components: motivation, strategic approach and communication, policies and programs, and challenges (see Table 1). Information regarding motivation relates to both problematization and endpoint, as it concerns the need for municipal-level climate policy and what the municipalities hope to achieve. Questions about challenges are crosscutting and can appear in all three governmentality components, though sometimes are best addressed separately (as shown in the analysis section). The other categories of questions inform the regime component of governmentality.

Table 1. Relation between research approach and governmentality

	Problematization	Regimes	Utopian ideal endpoint
Overarching questions	How do national and regional climate ambitions influence municipal policy decisions? What are the drivers?	How do municipalities develop, approve, and implement climate plans? Why are some municipalities more successful than others? What are the barriers? (How) have they been overcome?	What are the drivers?
Operationalized research categories	Motivation; Challenges	Strategic approach & communication; Policies & programs; Challenges	Motivation; Challenges

4.2.1 Data Collection

For each case, I analyze municipal documents relating to climate, environment, and sustainability, paying particular attention to those relating to climate change mitigation. These include

environmental plans, climate and energy programs, climate strategies, and similar documents.⁷ Though the document types and names vary slightly, all municipalities have at least one policy document focused explicitly on local strategies to address the national EQOs, the first of which is “reduced climate impact.”

To understand the broader context, I review the Swedish national EQOs, Skåne’s EQOs, regional climate objectives, and the regional climate and energy strategy. In addition, I study reports and peer-reviewed articles relating to climate policy, sustainable development, and the role of municipalities in Sweden. I also examine the municipalities’ websites, concentrating on the pages most relevant to climate, environment, and sustainability work. Combined with the planning and policy documents, these additional sources help substantiate the categorization of the three cases into “needs improvement,” “recent success,” and “success” regarding climate and sustainability policy. They also assist in the formulation of interview questions. This data creation strategy, triangulation, draws on multiple sources of evidence “aimed at corroborating the same phenomenon” (Yin, 2009, p. 116).

Interviews serve as the primary basis for answering my research questions, though supplemented with the materials described above. I selected interviewees via purposive sampling in order to ensure relevance to this study,⁸ interviewing at least one municipal staff member per case. These interviewees are all deeply involved with the municipal climate and/or environmental planning and policy development process. The interviews were semi-structured, allowing me as a researcher to keep an open mind (Bryman, 2012), lasted approximately 45 minutes each, and took place in the town hall or equivalent building in each municipality. I also interviewed two individuals with a broader perspective, the coordinator of Klimatkommunerna and a municipal official who has worked on climate and environmental planning at the national and regional levels as well as in large and small municipalities.

This study best lends itself to a qualitative rather than quantitative approach. Qualitative studies make assumptions, are informed by a theoretical framework, require the collection of data in a natural setting, deal with inductive and deductive analysis, seek to establish patterns or themes, and include “the voices of participants, the reflexivity of the researcher, a complex description and interpretation of the problem, and... a call for change” (Creswell, 2013, p. 44). Qualitative research

⁷ See Appendix 1 for a list of the policy documents I reviewed with their Swedish titles and English equivalents (I use the English names in this thesis).

⁸ See Appendix 2 for a list of interviewees.

takes into account multiple forms of evidence, including the words of individuals and their different perspectives (Creswell, 2013), which I do by examining municipal websites and policy documents, interviewing experts and municipal employees, and supplementing these sources with relevant reports from other organizations.

4.2.2 Data Analysis

This thesis aims for analytic generalization, appropriate for single and multiple-case studies, in which “previously developed theory is used as a template with which to compare the empirical results of the case study” (Yin, 2009, pp. 38-39). I therefore use governmentality, as previously described, as a way to conduct a cross-case comparison and conceptualize my results. I analyze my data via a coding process, beginning with cutting and sorting text from the interview transcriptions. I first formulate a list of terms that strike me as important, relevant, or frequently mentioned, and indicate what each of the informants says about these matters. Next, I organize these terms into a matrix for cross-case synthesis (Yin, 2009). I identify common themes by looking for repetition, transitions, and similarities and differences in the transcripts (Ryan and Bernard, 2003).

Drawing from Frame and Bebbington’s (2012) application of governmentality to sustainability plans in Scotland and New Zealand, I then group these terms into three theoretically informed categories: problematization, regimes, and utopian ideal endpoint. More specifically, for the problematization category, I look for themes relating to motivation for having municipal plans to address climate and sustainability concerns and the driving forces. For the regime category, I search for themes relating to the capacity of municipalities to develop such plans, the processes by which municipalities develop climate policy, and any barriers as well as how the barriers are being addressed. In terms of the utopian ideal endpoint, I look for themes regarding the municipalities’ visions, goals, or ambitions for the future.

After categorizing the results from each case into the governmentality components, I attempt to rank each main theme, or factor, as highly influential, influential, slightly influential, or non-influential. Two aspects inform these rankings:⁹ First, which factors are present in Kristianstad and Vellinge, the “success” cases, but absent in Hässleholm, the “needs improvement” case? A factor that all three cases share might contribute to ambitious climate policy, but cannot be considered a key determinant of success since it also exists in the “needs improvement” case. Second, how did the informants speak about these factors? Oftentimes during the interview, informants spoke explicitly

⁹ See Appendix 3 for a table describing my ranking approach.

about the level of importance they assigned certain factors. I use these descriptions as another basis for my ranking process, supplemented with findings from the documents I reviewed. Finally, I synthesize these findings in a table that lists which factors appear most influential in determining municipal climate policy success.

4.3 Ethical considerations

Ethics is an inherent part of conducting a research study, especially one largely based on interviews. I followed several ethical procedures regarding my interviews. When confirming meetings with informants, I shared an indicative interview guide as well as a brief note to introduce my research, so the informants understood what they were agreeing to. I obtained verbal consent to record the interviews. I later sent the interview transcripts to the informants and obtained email consent to use material in my thesis. I also received permission to use their names, though I gave the option of remaining anonymous.¹⁰

Another ethical concern that appears particularly in qualitative research is the issue of bias. I recognize that I have my own notions and perspectives about the topic at hand, and I try to prevent this from interfering with the integrity of my research to the extent possible. I describe this further in the following section on limitations.

4.4 Limitations

Language barriers constitute one unavoidable limitation of this study. When reviewing municipal documents, I either used Google to translate the text into English or attempted to read in Swedish while looking up words I did not understand. This process was tedious and limited the analysis techniques I was able to use.¹¹ The language barrier also could impact the quality of the data produced from my interviews, which were conducted in English. The informants are all native Swedish speakers, and though fluent in English, language issues may sometimes have affected our ability to understand each other, including how the informants understood my questions, how well they were able to express their responses, and how well I understood the information they wanted to convey.

¹⁰ However, for ease of reading, in the body text of this thesis I refer to my informants by number. See Appendix 2 for a full list of informants, including name, affiliation, and date interviewed.

¹¹ Researchers with limited fluency in the language are able to analyze and code qualitative data by looking for repetition, transitions, similarities and differences, and theory-related material, but not typologies, metaphors and analogies, linguistic connectors, or missing data (Ryan and Bernard, 2003).

Possible bias from the interviewer or poorly articulated questions also could form limitations. At times I felt I might have asked leading questions, even though it was not my intent, because I had to give examples in order to more clearly convey the question. Other interview-related limitations might include response bias, “inaccuracies due to poor recall,” and reflexivity, in which the “interviewee gives what interviewer wants to hear” (Yin, 2009, p. 100). In addition, the experience of the informants sometimes is limiting, since my research is so heavily based on the information obtained from the interviews; for instance, informants from Hässleholm and Vellinge have been working for their respective municipalities for just a few years, and therefore can only offer insights about earlier occurrences based on secondary information.

Time and space constrictions serve as another limitation to this study. The short timespan for execution and the limited word count restricts the amount of depth and detail I am able to achieve for each of the three cases.

5 Results

In this chapter, I first describe the broader context in which the three municipalities operate, including national and regional policies, relationships between the multiple levels of governance in Sweden, and voluntary networks and initiatives that may have a role in determining how municipalities formulate policies to address climate change. I then present case-specific results, organized according to the motivation, strategic approach and communication, policies and programs, and challenges that impact climate policy success. After going into detail for each case, I present results that apply in a more general sense, rather than just to one municipality.

5.1 National and regional influences

Municipal climate governance does not occur in a vacuum; it is affected by regional and national goals, and may also be influenced by trans-municipal voluntary networks and initiatives.

5.1.1 Policy context

Sweden’s climate and environmental work is first guided by international requirements from the EU and the UNFCCC. The national EQOs serve as the basis for strategic environmental work in Sweden (Länsstyrelsen Skåne, 2010). These 16 objectives cover the period 2010-2020, except for “reduced climate impact,” which has a target year of 2050. As it is the CABs’ responsibility to bring the national goals to the regional context, Länsstyrelsen produced several policy documents to guide climate

work in Skåne. These include a set of regional EQOs based on the national objectives, climate objectives to look deeper into the “reduced climate impact” EQO, and a climate and energy strategy.

Skåne’s most recent EQO document was updated in 2013. It facilitates meeting the national EQOs via three main components: a generation goal that recognizes “the social transformation that needs to take place within one generation in order to achieve the environmental quality objectives;” objectives that “describe the state of the environment the work should aim for;” and corresponding intermediate goals that “make it clear where efforts should be initiated” (Länsstyrelsen, 2014, own translation). It contains a set of actions to be achieved by 2016 and specifies the key actors responsible for the implementation of each (Länsstyrelsen, 2014). The “reduced climate impact” objective for Skåne was adapted from the national EQOs and aims to stabilize GHG concentrations in accordance with UNFCCC-recommended level to avoid dangerous interference with the global climate system. It specifies that Sweden should achieve this target in a manner that preserves biodiversity, assures food production, and does not jeopardize other sustainable development goals, and sees Sweden as sharing responsibility along with the rest of the world (Länsstyrelsen, Begränsad klimatpåverkan).

Skåne’s climate objectives document describes the scale of the climate change problem, incentives for taking action, and sectors and measures that are particularly relevant for addressing climate change at the regional level. It emphasizes the importance of companies and private-sector actors and presents economics as a major incentive (saving money by being energy efficient) (Länsstyrelsen Skåne, 2010). It also takes a global perspective, noting that Skåne relies in part on imported energy sources, and that per capita GHG emissions in Skåne are higher than they seem due to the emissions caused from imported goods (Länsstyrelsen Skåne, 2010).

The climate and energy strategy for Skåne, first drafted in 2008 and updated in 2013, declares the following vision: “In Skåne it is both easy and profitable to live, reside and travel in an energy-efficient and fossil-free way. Skåne takes the lead in work for a long-term sustainable energy system with efficient and low energy use with minimal impact on climate and the environment” (Länsstyrelsen Skåne, 2013, own translation). In addition to setting forth activities and measures, this vision offers a clear picture of the level of ambition climate policy should aim for.

5.1.2 Multi-level governance

Municipalities are supposed to devise their own policy documents to guide the local-level implementation of these regional strategies and objectives. One informant who has worked on climate, environment, and sustainability-related issues at the national, regional, and local levels in

Sweden noted that since resources are distributed across all levels of society, it is impossible for a single level of governance to solve these problems on its own, and cooperation across levels is necessary (Inf5). However, multi-level governance is not without challenges; “local authorities have been struggling with national authorities concerning sustainable city development” (Inf5). The coordinator of Klimatkommunerna echoed this sentiment, citing a frustrating example of contradictory national information regarding the installation of solar panels on municipal buildings (Inf6). One informant noted possible conflicts between municipal planning and Länsstyrelsen where climate and environmental impact are concerned (Inf4).

Tensions or contradictory higher-level regulations not only prevent municipalities from effectively collaborating with other actors and moving their climate work forward, but also “take[s] out the power from people that really want to make things happen, to change the way things are” (Inf5). The informant noted that these seemingly subtle impacts on agency and power can have consequences that last as long as a 4-year political cycle, if not longer (Inf5).

5.1.3 Networks and voluntary initiatives

In addition to governmental objectives, my research investigate the roles local Agenda 21, Fossil Free Skåne, and Klimatkommunerna play in influencing municipal climate policy.¹²

Agenda 21

While all three cases have some history of active engagement with Agenda 21, Kristianstad is the only case that still engages with the program. The climate strategist did not feel that Agenda 21 contributes much to the municipality’s climate planning, and the other informant added that “most municipalities have changed that work into something else today” (Inf3 & Inf4). Hässleholm adopted a local Agenda 21 document in 1997, supported by a local NGO composed of individuals, companies, and associations, as well as the municipality itself. However, in 2006 the municipality replaced Agenda 21 with its own environmental program and the NGO stopped being active (Hässleholms kommun, n.d.). Vellinge’s climate and environmental strategist also did not believe Agenda 21 is important in shaping current climate and environmental policy: “I think it was just something you were supposed to have back then” (Inf2).

Klimatsamverkan Skåne

¹² See Appendix 4 for brief overviews.

The cases also exhibit differences regarding commitment to Klimatsamverkan's Fossil Free Skåne initiative, which aims to eliminate fossil fuel emissions by 2020: Hässleholm and Kristianstad are signatories while Vellinge is not. Although Hässleholm's energy plan lists Fossil Free Skåne as an objective, and its environmental program also

"It's a good way to show politicians that it's not only we that have the objective, we can work together with other municipalities and also with companies. So perhaps we would have that kind of objective anyway here... but it's easier to make things happen, we're going in the same direction as others too."

- Katrine Svensson, Kristianstad

includes activities that should eliminate fossil fuel use, the environmental strategist described a need for more active work in this area (Inf1). Kristianstad is working actively towards becoming fossil fuel-free, and sees Fossil Free Skåne as a way to support this work. By contrast, Vellinge's climate and environmental strategist explained that the city council decided Vellinge should not sign Fossil Free Skåne because it was not realistic, though added that "of course that's not the main point, it's more a visionary goal. Politicians said we won't sign it, but we will do what we can" (Inf2).

Klimatkommunerna

All three municipalities are members of Klimatkommunerna, a Swedish association that supports municipal climate work. Though all feel the network is beneficial to their climate efforts, they joined at different times and have different levels of engagement. Hässleholm joined Klimatkommunerna when it was "at the front line with working with these questions a while ago," and now wants to become a more active member once again (Inf1). Hässleholm also would like to use its membership to strengthen its motives for improving energy work, though a current lack of local-level environmental objectives (explained in the following section) is preventing this from happening. Vellinge joined Klimatkommunerna after a politician noticed that many other

"The real benefit is the network, where you get an insight in how other municipalities work, you can ask questions in this online forum, it's a knowledge base."

- Jonas Andermyr, Vellinge

municipalities were members and raised the idea with the city council. The municipality previously had not been active with climate work and had to make a number of improvements in order to meet membership requirements (Inf2). Kristianstad, by contrast, has been involved in Klimatkommunerna since its establishment process. Informants from Kristianstad spoke about the benefits of the Klimatkommunerna network, describing the ease of asking climate-work-related questions via email and receiving prompt responses (Inf3), as well as the opportunity Klimatkommunerna provides to have a dialogue with national-level policymaking (Inf4).

5.2 Cases

The following section presents the case-specific results. As explained in the methodology, I intentionally select cases that share similar characteristics, including belonging to the same broader context as described above. All three municipalities are Klimatkommunerna members with their own set of environmental objectives based on the national EQOs. Though each municipality emphasizes a slightly different selection of objectives, all include “reduced climate impact” and have some type of corresponding policy document(s) that in part serves as my basis for comparison.

5.2.1 Hässleholm

Hässleholm has been described as currently needing improvement in policy and planning regarding climate, environment, and sustainability. Though it has demonstrated an active commitment to these issues and was considered a forerunner in the past, a period of reorganization within the municipal administration has contributed to some amount of neglect where climate-related policy is concerned.

“Environmental work is not dead in Hässleholm, it’s happening, but we don’t do it together and that’s what’s lacking right now.”

- Eva Hedenfelt, Hässleholm

The municipality sees considerable energy efficiency potential, noting that many measures are not implemented even though they are profitable in the long term (Hässleholms kommun, 2010). There is also potential to use more

renewable energy and expand local production, particularly regarding the conversion of organic waste to biogas (Hässleholm received support from a climate investment program for this purpose). Hässleholm’s energy and climate plan presents a goal for municipal operations to be fossil-free (Hässleholms kommun, 2010). Despite these observations and aims, Hässleholm lacks up-to-date climate policy and planning coherence.

Motivations

According to the environmental strategist, Hässleholm’s main motivations for climate and sustainability work should be the need to care for future generations. However, the 4-year political cycle makes it difficult to take a long-term planning perspective, and investing in the future is challenging from an economic point of view (Inf1). The strategist noted that, outside of municipal requirements, companies – especially water and waste management – are taking their own initiative, doing a good job, and following their own environmental goals (Inf1).

Another possible motivation is found in the 2010 energy and climate plan, which states that a modern municipality that looks at climate issues is an attractive place to live and work, and mentions that Hässleholm's active work in this area needs to continue (Hässleholms kommun, 2010).

Strategic approach and communication

Hässleholm currently lacks a strategic approach to address climate, environment, and sustainability concerns. Though these topics transcend multiple sectors, the municipality does not have "a structured organization for working with these questions," and though the environmental strategist collaborates with the health strategist and building department, they lack formal means of communication (Inf1). Internal restructuring and staff turnover has also impacted Hässleholm's approach to climate-related work. Although Hässleholm ought to have an up-to-date environmental program to guide local implementation of the EQOs, this has "fallen between chairs" due to reorganization and structural changes (Inf1).

Policies and programs

Hässleholm has several policy documents related to the "reduced climate impact" EQO, including an environmental objectives program covering the years 2006-2010 and an energy and climate plan that was approved in May 2010. The environmental objectives program addresses 14 out of the 16 national EQOs,¹³ describing each national objective along with corresponding municipal-level sub-objectives and important local actors (Hässleholms kommun, 2006). As with the national document, Hässleholm lists "reduced climate impact" first. It mentions the IPCC, the EU's climate goals, and the Kyoto Protocol as context, and describes the municipality's 2004 decision to join Klimatkommunerna.

The energy and climate plan focuses primarily on the "reduced climate impact" and "a good built environment" objectives, noting that municipal urban planning should take climate into account regarding physical planning, transport, energy use, and climate-friendly handling of food waste and other residue (Hässleholms kommun, 2010). This 2010 document builds on an energy plan from

"Since 2010 we haven't had an environmental program, so I'm working on that right now. Why we haven't had a new one since 2010? It's easy, actually. It's because there's been reorganizations and the ones that have been responsible for working with it have quit or changed positions, so it's been started over three times. My ambition is to finish it; it's not going to be started over again, I hope."

- Eva Hedenfelt, Hässleholm

¹³ The local EQOs program excludes the objectives related to oceans and mountains, which do not apply to Hässleholm.

2001, replaces a climate strategy for 2004-2010, and corresponds with the 2006-2010 environmental objectives program (which has since been replaced with a new program covering 2011-2020). Though it is supposed to be updated once per term (Inf1; Hässleholms kommun, 2010), it has not been updated since 2010 (Inf1).

Challenges

Organization, knowledge, and political decisions constitute the primary challenges to climate policy in Hässleholm. In addition to being outdated, there is a problem with organization and harmonization of various policy documents. The strategist reflected that the various policy documents currently do not fit together particularly well, partly due to the absence of an environmental program that provides coherence and structure. The municipality is working to rectify this via organizational restructuring that intends to clarify roles and responsibilities, making it easier for employees to know what concerns them, what they have to work with, and what they have to take into account – including specific policy documents and how relate (Inf1). The strategist believes this will benefit efforts to update the 2010 energy and climate strategy, ensuring it reflects current conditions and corresponds with the other relevant policies.

“There needs to be political decisions that we're lacking right now... How do we want to work with these questions? Do we want to be in the front line, work with these very actively, or do we just want to keep our heads above the water and just do what we really have to do? There is a long way in between those extremes and I don't know where we want to be placed.”

- Eva Hedenfelt, Hässleholm

In addition to a current lack of organization and structure, Hässleholm seems to be missing political guidance and vision. Both the visionary and organizational challenges relate to knowledge; municipal staff and politicians would benefit from an improved understanding of climate change and how it implicates each individual's work (Inf1). One of Hässleholm's high-ranking politicians, Camilla Lindoff, was recently elected to Klimatkommunerna's board; the environmental strategist expressed optimism that this will lend more weight to questions of how the municipality addresses climate issues.

5.2.2 Vellinge

Vellinge recently became more ambitious regarding climate, environment, and sustainability. Whereas Hässleholm currently lacks clear direction, Vellinge is explicit about its desire to be a leader in the climate and environmental sphere. Klimatkommunerna's website describes Vellinge as having clear political will, aiming to be a role model, and striving to create opportunities for improving

climate-related performance (Klimatkommunerna, 2014). The municipality's climate and environmental strategist attributes the shift to staff turnover in leading positions, "a new generation of politicians that are more aware," and a concerted effort to improve over the past three years (Inf2). This is evidenced in part by the municipality's decisions to create the environmental strategist role and later to join Klimatkommunerna.

Motivations

Vellinge considers climate change a governmental issue, with the municipality itself holding primary responsibility to protect its citizens, their homes, and their companies. In addition to keeping inhabitants safe, Vellinge's desire to be an attractive place to live motivates its climate work. This statement is reflected in the municipal vision, "better quality of life – for you," a long-term aim that all municipal actions should contribute to achieving (Vellinge Kommun, 2014a, own translation). Moving forward, Vellinge is focused on renewable energy and sustainable cities. Energy self-sufficiency is one motivation: the municipality currently depends entirely on outside sources to meet its energy needs, and is looking into solar power as a local energy source (Vellinge kommun, 2014a; Inf2). Reputational benefits in Sweden and abroad serve as a motivation for planning sustainable city developments (Inf2).

Motivation from the public does not seem to significantly drive Vellinge's municipal climate planning. Inhabitants generally feel strongly about the importance of nature conservation, since Vellinge is known for its rich biodiversity, and the municipality's coastal location generates some awareness of the threat of sea-level rise. However, in terms of ambitious climate action, the strategist stated, "If you are a citizen in Vellinge, I think you are counting on the municipality, there's not much you can do as an individual," supporting the point about municipal responsibility (Inf2). He mused about possible demographic explanations for the level of public interest in individual-level climate action, noting high waste-per-citizen and car-usage ratios (Inf2). As with the public, companies and businesses do not appear to strongly influence the municipality's approach to climate issues. There are no large industries in Vellinge, only small-scale companies, and from the strategist's perspective they are neither better nor worse than anywhere else.

Motivated individuals within the municipality seem to be the primary drivers of Vellinge's climate work.

"You don't want to be too involved in the political game, it's better to not know and just to follow your instinct, don't think too much about it, just ask for it, go for it... I think that's a major change, actually, that's helped our environmental work. We have a couple of those persons - young, driven, want to make a difference."

- Jonas Andermyr, Vellinge

The strategist explained that politicians do not always assign climate-related tasks or projects; it is often staff members that come up with ideas and get them approved. Although the municipality is a politically driven organization, and “it makes a huge difference if the politicians are aware and see the benefits of working with those questions,” the strategist feels that the drive and initiative of individual staff members is of equal importance (Inf2). He observed that while it is relatively easy for individuals to simply fulfill requirements, it takes much more effort, courage, and persistence to make a difference and instigate change. Young, motivated people who exhibit these qualities and are not afraid to push their ideas forward have greatly benefited Vellinge’s climate work over recent years (Inf2).

“In the last 3 years or so we really made an effort to better ourselves. So we have looked at things like environmental policy and strategic documents and we’re building up a good foundation for environmental work. If we hadn’t done that, I think we hadn’t met the requirements for Klimatkommunerna.”

- Jonas Andermyr, Vellinge

Although the strategist explained that much of Vellinge’s climate action is the result of individual initiative, the decision to join Klimatkommunerna came from a politician. This decision also motivated Vellinge to improve its climate work, since the municipality had previously been lagging in this area and needed to work hard to meet Klimatkommunerna’s membership requirements.

Strategic approach and communication

Vellinge has a clear and organized approach to policymaking. Project groups plan the details of a specific strategy and, once the strategy has been adopted, formulate an action plan that specifies the budget and who is responsible for what. The strategist reflected that Vellinge’s small size makes it is fairly straightforward to know which tasks should fall under whose responsibility (Inf2). In terms of the policies themselves, Vellinge’s strategy is to select a small number of priority EQOs where it can make the most difference, then develop separate policy documents for each one (as explained below).

Policies and programs

Four municipal policy documents directly relate to Vellinge’s efforts to address climate change: local environmental objectives, a corresponding action plan, an energy and climate program, and an energy efficiency program. The city council adopted all of these documents in 2014 except for the energy efficiency program, which is from 2013. Although the local environmental objectives document remains based on the national EQOs, it specifies five priority objectives to focus on. The environmental building board felt that it would be impossible to efficiently and effectively address all

national EQOs, so instead had a discussion about which objectives were most important to Vellinge and where Vellinge could make the greatest difference (Inf2). The first of these priority objectives is “reduced climate impact.”

“So we have the local environmental goals, and we take each of those 16 goals - we've actually chosen 5 of them which we think are the most important ones for Vellinge, and we take each of these 5 goals and make a real dive into it, sets goals and measures that we need to do in a given timeframe.”

- Jonas Andermyr, Vellinge

The energy and climate program works in parallel with the environmental objectives to more comprehensively address the “reduced climate impact” objective as well as aspects of the “good built environment” objective, which also relates to urban areas’ climate impact. The energy efficiency program, covering the years 2010-2020, focuses explicitly reducing the impact of municipal operations’ energy consumption.

Challenges

Vellinge’s main challenges when it comes to climate policy are money, time, and capacity. As in other municipalities, the entity that holds responsibility for the implementation of a given activity is also responsible for coming up with the corresponding budget. Questions of responsibility and economics are therefore intertwined, and there is always a competition between dedicating resources to climate work versus other municipal priorities (Inf2). The strategist also mentioned the challenge of time several times, noting that “you can’t always work on everything at once even though you try,” that timeframe is one of the main discussion topics when drafting policy documents, and that the related processes are quite time-consuming (applying for funds, writing, meetings, planning) (Inf2).

One barrier that does not exist in Vellinge is resistance from politicians: “It's very rare in my experience in Vellinge that you get a politician or someone on a higher level than yourself who gets in your way. If you have a good case and you explain what you want to do, and you don't ask for too much funding, it's rarely a problem, actually” (Inf2).

5.2.3 Kristianstad

Kristianstad has a history of active engagement in climate, environment, and sustainability issues. In the 1980s politicians decided that the municipal power station should switch to renewable energy sources (Inf4), and there was much work on biogas and waste management throughout the 1990s (Inf3). The municipality is also one of the original members of Klimatkommunerna. Of this, the climate strategist said, “I think it's kind of that we wanted to be a forerunner” (Inf3).

Motivations

When speaking about the motivation behind Kristianstad's ambitious climate policy work, the climate strategist stated that the municipality wanted to "make its contribution" and have a good reputation (Inf3). Municipal companies, politicians, and engaged municipal officials are largely responsible for moving the climate work forward (Inf3), though individual employees also have a significant impact (Inf4). The environmental communications officer mentioned that previously there were several politicians who considered it unnecessary to prioritize environment- and climate-related questions, but now both informants feel that there is strong political support, with unanimous agreement about the importance of addressing climate change.

The climate strategist sees the primary responsibility for climate action lying with municipal companies, including those responsible for energy, biogas, and waste management, as well as the building department and all other municipal departments "as long as they own vehicles and use fossil fuels" (Inf3). Though private companies are not necessarily subject to the same policies as those owned by the municipality, they are motivated to reduce GHG emissions as long as there is an economic benefit. The strategist noted that "the bigger the company, the more motivated," and smaller companies might lack the knowledge or time to work with these issues (Inf3).

Kristianstad's inhabitants have some understanding of and interest in environmental concerns, which may create a general sense of support for ambitious climate policy. The biosphere reserve and flooding events in 2002 and 2007 raised awareness of the importance of biodiversity and rising water levels, respectively. Informants had mixed opinions about the impact of public awareness on climate action: one felt that this understanding of water-related problems was one reason the municipality wants to reduce its climate impact (Inf4), while the other felt that the majority of the public does not care about climate change mitigation activities (Inf3). The communications officer also observed that public awareness is shaped by the media: several years ago climate received a large amount of media attention, including the consequences of climate change and how individuals can reduce their own climate impacts, though currently there is more focus on chemicals and it has become easier to engage inhabitants on chemical-related issues instead (Inf4).

In terms of concrete goals, Kristianstad aspires to reduce its natural gas consumption in the future, possibly via the municipal climate strategy unless it implicates higher-level regulations such as national taxes (Inf3).

Strategic approach and communication

Kristianstad has a relatively extensive administrative structure. The responsibility for environmental laws and objectives lies in the supervisory authority for environment and health. The climate strategist works in a separate office that is responsible for climate strategy and waste strategy, though the building authority and biosphere office are also involved with climate and environment work. Although this work is generally integrated, the lines of communication and responsibility are not always initially clear, especially for newcomers in the municipality (Inf4).

Communication on climate- and environment-related topics extends beyond the municipal departments. In April 2015, the municipal administration established a political delegation comprised of one politician from each party to work with climate strategy and adaptation issues. The municipality also organizes the Climate Alliance, a network of locally based companies that are interested in reducing their climate impact (Inf3; Inf4).

Policies and programs

The starting point for formulating Kristianstad's first climate policy documents might have been the national climate funds program, KLIMP, which required recipients to have a climate strategy. Both informants felt that the KLIMP grant greatly benefited the municipality's work around its climate strategy (Inf3; Inf4).

Various policies guide Kristianstad's climate-related work, including an environmental plan, a climate vision, several climate strategy and energy planning documents, and a procurement policy. The environmental plan is currently being updated from its 2007 version; the new draft was completed in autumn 2014 and a public review period was held from October 2014 to January 2015. The environmental department received many comments and will submit a revised version to politicians in May or June. Though most comments came from locally-based organizations, there were also comments from within the municipal administration that the proposed new plan "is too much, too thick," and that it should contain fewer objectives and measures – similar to challenges experienced with the 2007 plan (Inf4). The revisions will address this by reducing the number of objectives beneath the 15 applicable national-level EQOs, and changing some of these to guidelines (Inf4). In addition, objectives will be easier to measure and will be assigned a completion year. Several

"It's hard for everyone to know what objectives are prioritized when you have a lot of them."

- Katrine Svensson, Kristianstad

objectives in the previous iteration were notably difficult to achieve; objectives in the new plan should be more feasible (Inf4).

There are several structural differences between the 2007 environmental plan and the revised version. To make it easier to conceptualize the national EQOs, the revised document will group them into five broad categories¹⁴ (Inf4). This change responds to the observation in the 2007 document it was challenging for both municipal staff and the public to know where to find indicators, goals and activities for which topics. The new structure seeks to make it “easier to find out what shall we do and what are we responsible for” (Inf4). The new plan also contains concrete measures and specifies which unit or office is responsible for each. In addition, the process for drafting the updated plan differs from the 2007 iteration. While the production of the 2007 plan included various external organizations, this time there was more of an inward focus on the municipal administration itself. The 2007 plan allowed citizens to become involved early on, while the new process only allowed them to review and comment on the draft. Eight different working groups conducted the bulk of the work to produce the updated plan. These groups mostly comprised staff from within the municipal organization, but also included representatives from influential stakeholders such as the food and agriculture industries, as the municipality realizes they must work together in order to achieve the objectives (Inf4).

Climate-specific policy documents offer more detail on how to achieve the “reduced climate impact” objective. The climate vision, produced in 2011 in collaboration with several municipal departments and clean energy companies, seeks to guide educators in mainstreaming climate work in their curricula. However, the climate strategist is unconvinced that the implementation is successful (Inf3). Implementation of the climate strategy is better, largely due to annual monitoring. The most recent version is from 2011, though the updating process has recently begun. The new political delegation on climate will contribute to the development of the updated strategy. As with the environmental plan, municipal departments and the general public will be able to review and comment on the draft. While there were no major challenges associated with producing the 2011 climate strategy, the climate strategist observed that there has been a range of barriers with the corresponding action plan, mostly regarding the transport sector. These barriers span from EU-level taxes to lack of renewable fuel sources to prohibitively expensive electric vehicles (Inf3). Changes at the market level

¹⁴ See Appendix 5 for an illustration of this.

are helping to overcome some of these, such performance improvements and reduced price of electric vehicle batteries (Inf3).

Procurement is another tool Kristianstad uses to further its climate and environmental work. The procurement policy is largely based on national criteria, though sometimes Kristianstad's requirements are more stringent in order to meet municipal objectives. However, the policy must also be realistic, and there must be market options available that meet the criteria.

“For example, we want to be fossil fuel free, we have to use that kind of criteria in purchasing our vehicles.”

- Katrine Svensson, Kristianstad

Challenges

Aside from barriers associated with the implementation of the climate action plan, and the perhaps ubiquitous challenge of climate change impacts being something that will occur in the future and are therefore difficult to conceptualize today, Kristianstad experiences several challenges related to its large administrative structure. Sometimes the decentralized responsibility causes conflicts related to prioritization, and though communication between different offices and departments is generally good, problems can arise regarding climate-related planning processes because of a lack of awareness about what is happening in other parts of the municipality (Inf4).

“I have my own board for the environmental and health agency, so I've shown them the objectives during the process. But it would have been great to have more politicians involved.”

- Katrine Svensson, Kristianstad

When speaking about the process for updating the environmental objectives, this informant reflected that it would have been beneficial to involve a group of politicians from different offices. Kristianstad will have exactly this when updating its climate strategy, by engaging the climate delegation as described earlier.

Securing financial resources can also be a challenge, mostly from an administrative point of view. The high number of objectives in the 2007 environmental program, for example, had budgetary implications “because you have to have money for the measures to be able to reach the objectives” (Inf4). Even when money exists for the implementation of a certain measure or activity, the entity responsible for its implementation also holds responsibility for integrating it in the budget. Regional or national grants, like KLIMP, have sometimes provided up to 50% of the financing for certain activities, but obtaining grants requires administrative effort. Kristianstad currently receives funding from Region Skåne and is exploring the possibility of applying for EU-level grants. The municipality

recently hired a new coordinator specifically to help overcome the barrier of particularly high administrative demands associated with grants from the EU.

5.2.4 Commonalities

Informants also offered several observations not limited to a specific municipality, such as the influence of individual politicians, clear municipal goals, and power relations.

Motivations

Multiple informants emphasized the importance of political direction for having ambitious municipal climate work. Regardless of whether climate policy is a top-down assignment from a municipal official or a bottom-up initiative from a municipal employee, success depends on the type of people involved. In Kristianstad, the political will to address climate

“Some years ago if you had asked me that question, I think I would have answered the usual answers: NGOs, private sector, government. But today I would say no, find the people who can change and collaborate with them.”

- Katarina Pelin, on stakeholders and obtaining political support

change seems firmly ingrained. In Hässleholm, politicians seem to lack a concrete understanding of what they want to achieve in terms of climate and environment. An informant with experience spanning multiple levels of government reflected that “the most important thing is to try to understand what politicians want with the city, and of course... try to help or maybe force politicians to have higher standards, higher goals for the development of the city,” because having these clear goals is essential in order to mobilize action (Inf5). It is also important to disseminate the goals throughout the entire municipal organization so as many relevant actors as possible can contribute to their achievement (Inf5).

Instead of attempting to instigate change via collaboration with NGOs, the private sector, and various municipal departments, some informants observed that in their experience it is more effective to identify motivated leaders within different groups of stakeholders and collaborate with them at an individual level. It is helpful to have support from a high-ranking politician with a personal interest in the topic, because they are able to allocate resources and ensure climate questions receive adequate attention (Inf1). One informant reflected that simply having the right policy documents does not ensure outcomes; the specific people who are involved can have a great amount of influence on whether or not the documents themselves actually lead to outcomes, or whether progress is achieved despite lackluster policies (Inf1).

Challenges

The informant whose career in environmental matters has spanned the national, regional, and municipal levels observed that there are not so many tangible, practical barriers: there now exists knowledge of the problems and what to do about them, and “there is lots of money in this system”

“It can concern power, people are scared, unambitious, or they are only ambitious for themselves. We have different guiding forces that actually stops them from doing what we should do.”

- Katarina Pelin

(Inf5). The real challenge has to do with power and behavior. Moreover, echoing sentiments expressed by an informant from Kristianstad, she noted that media plays a significant role in shaping the attitudes of society. When the media focuses on negative aspects, people “know too little about the good things that are happening... and that’s also very confusing” (Inf5).

Furthermore, this informant perceived a trend of moving towards more centralized decision-making, which worries her for several reasons. She observed that “people get scared, and they think the solution is to collect all the decisions into the center and sort of figure out this confusion” (Inf5), and noted that many politicians seem to be reverting towards centralization, possibly as a result of the

“I think we should try to decentralize more and more, and understand that the solutions are not so easy anymore. It’s not just one decision that solves lots of things. Instead we have to decentralize the decisions as far out in the organization as possible and collaborate between more people.”

- Katarina Pelin

uncertainty and confusion regarding the problems at hand. She believes this is the wrong tactic, and that more decentralization is needed in order to effectively address complex sustainability challenges such as climate change.

6 Analysis

I analyze results by comparing findings from each case and locating these findings in the governmentality framework. I then present a comparison of the challenges that the informants described that did not logically fit into the three governmentality components.

6.1 Applying governmentality

This chapter places the results regarding the motivation, strategic approach and communication, policies and programs, and challenges surrounding each municipality’s climate policy work into the three components of governmentality: problematization, regime, and endpoint. I compare the

findings for each municipality (see Table 2) and highlight key characteristics that Kristianstad and Vellinge share but are absent in Hässleholm. I thereby uncover the factors that appear most influential in determining the level of climate policy success municipalities are able to achieve (see Table 3). From a governmentality perspective, I search for the regimes of practice that seem to most effectively contribute to achieving the utopian ideal endpoints, and locate these features in their specific context by including an analysis of motivations and barriers.

The following table synthesizes key findings from the cases and organizes them according to the governmentality components. This serves as a starting point for the more detailed analysis that follows.

Table 2. Translating research into governmentality framework

	Problematization <i>Motivation; challenges</i>	Regimes of practice <i>Strategic approach & communication; policies & programs; challenges</i>	Utopian ideal endpoint <i>Motivation</i>
Hässleholm		Lacks up-to-date, coherent, strategic approach; Policy documents need to be updated and harmonized; Climate work is happening but lacks coordination; Recent municipal restructuring	Lacks a vision, uncertain about level of ambition to aim for; Care for future generations; Fossil-free municipal operations
Vellinge	Responsibility to protect inhabitants; Needed climate policy to become Klimatkommunerna member; Some citizen awareness of climate change impacts	Changed over past ~3 years; Motivated individuals within municipal administration; Clear lines of decision-making and responsibility; Selected 5 priority EQOs to focus on, formulated detailed plans for each	Better quality of life; Good reputation, international recognition
Kristianstad	Needed climate strategy to obtain KLIMP funds; Sense of responsibility; Some citizen awareness of climate change impacts	Consistently ambitious re: climate, engrained in top-level governance; Larger municipal structure, climate work is more spread out; Addressing all relevant EQOs, but grouping them into a smaller number of categories	Good reputation, international recognition; Fossil-free municipal operations
All three	Emitters of GHG; Contributors to climate change; "Reduced climate impact" EQO		Attractive place to live; Cost benefit associated with energy efficiency

6.1.1 Problematization

As previously explained (see Table 1), I draw from each municipality's motivations and challenges to determine how it problematizes the climate change challenge. Governmentality understands

problematization in terms of how a program seeks to change a regime of practice; the overarching problem for all three municipalities is locally occurring activities that contribute to climate change. To address this, all three have a “reduced climate impact” objective and corresponding policy documents that intend to decrease GHG emissions through various avenues. Looking at the motivations of each municipality offers an understanding beyond *what* municipalities seek to address but also *why* they address it. Why are municipalities motivated to have ambitious climate policies?

Motivated individuals: highly influential. Regardless of whether the motivation comes from the top-down or the bottom-up, having influential and driven individuals within the municipal administration is one crucial factor that impacts a municipality’s ability to address climate. Climate policy work in Kristianstad largely seems the result of top-down

political decisions, such as the motion to establish the climate delegation, while in Vellinge it often appears to stem from municipal employees who have an idea and bring a proposal to the city council. All informants repeatedly stressed the importance of having motivated individuals who are able to make an impact.

“I want to be involved with... an organization that wants to make things better, maybe not make the world a better place because that's really high, but you should do what you can and I want to learn a lot.”

- Jonas Andermyr, Vellinge

Sense of responsibility: influential. Vellinge and Kristianstad both spoke about a sense of responsibility on behalf of the municipality as a guiding force behind climate action. They feel the inhabitants depend on the municipality to protect them – perhaps rightly so, due to the risk of climate change-related impacts associated with their geographical locations. While Hässleholm’s informant mentioned that there should be a responsibility towards future generations, this seemed to be more of a hypothetical statement than one that actively guides ongoing work.

Public interest/awareness: slightly influential. Informants expressed different opinions about the level of awareness their citizens exhibit regarding climate, and the impact this has. Inhabitants of Vellinge and Kristianstad generally have a high awareness of biodiversity and water-related climate issues. Though informants did not seem to feel citizen interest was a major driver of ambitious climate policy, it could play a role – particularly in Kristianstad, which experienced flooding events in 2002 and 2007. This also might help explain why Kristianstad has demonstrated more interest in climate work over the past decades. The level of public interest seems weaker in Hässleholm, possibly because it is not located close to a coast and is not as famous for its nature. Interest from companies and businesses did not serve as a significantly motivating factor for any of the cases’ climate work.

6.1.2 Regimes

Clear, strategic approach: highly influential. One influential factor that seems consistently present in Kristianstad, recently evident Vellinge, and currently absent in Hässleholm is having a clear, strategic approach to climate planning. In terms of policy content, Kristianstad's strategy is to group the 15 relevant national EQOs into a smaller number of categories to make the topics easier to understand. Vellinge's approach is to select five priority EQOs, showing the effectiveness of narrowing down, prioritizing, and diving deeply into focus areas. The fact that both municipalities have been successful suggests that the specific approach is unimportant long as it is understood who is responsible for what, and there is a strategic way to conceptualize and prioritize work. By contrast, Hässleholm's current lack of vision and organization prevents the development and execution of any clear strategy.

Clear structure and organization: highly influential. All informants, as well as a Klimatkommunerna report, noted the importance of having a proper structure and clear goals or objectives for environmental work. The municipal actors on which Klimatkommunerna based its findings felt it was helpful to mainstream environment and climate work throughout the entire organization (Klimatkommunerna, 2012, p. 16). Kristianstad does exactly this: its relatively decentralized structure enforces the notion that climate is a crosscutting issue that implicates a range of personnel, and enables climate work to be a part of multiple departments. Vellinge also exhibits these characteristics by having a logical structure and a clear vision to guide climate-related work. Recent municipal restructuring in Hässleholm seems to have disrupted its climate and environmental work, and the current lack of a clear structure may restrict its climate policy development.

Harmonized and updated policy documents: influential. Having harmonized and updated policy documents appears to be important; in a somewhat Catch-22 situation, the lack of current and coherent policies hinders the development of other related policies. This is evident in Hässleholm, where it is difficult to update one of several climate-related policy documents because the corresponding documents are outdated and therefore no longer serve as a guide or reference point. For example, as described in the results section, Hässleholm's out-of-date energy and climate plan refers to an even more outdated version of the environmental objectives program. Vellinge, meanwhile, put a great deal of work into climate planning several years ago when applying for Klimatkommunerna membership, and emerged with a policy structure in which each priority EQO has its own corresponding policy document(s) describing specific actions, measures, and responsible entities. Kristianstad is nearly done with updating its environmental program and has just begun the

process for updating its climate strategy, suggesting that the former will be able to inform the latter and ensure coherence between the two documents.

Networks and other voluntary commitments: slightly- to non-influential. The existence of a local Agenda 21 program has a negligible impact on municipal-level climate and sustainability policies. Kristianstad has a local Agenda 21 program, though it now is evolving into something else, and Vellinge and Hässleholm are no longer active with Agenda 21. Fossil Free Skåne also does not seem to be a determining factor of ambitious climate policies; Vellinge is not a signatory, though Kristianstad and Hässleholm are. Similarly, Klimatkommunerna membership is not a primary determinant of climate policy success. Though all three municipalities discussed how they benefit from the network, the differing levels of climate policy ambition suggest that membership alone cannot determine the level of success.

6.1.3 Utopian ideal endpoint

Political motivation: highly influential. Motivation and encouragement from politicians seems lacking in Hässleholm, Vellinge recently became politically open to climate-related work, and Kristianstad has longstanding political interest in climate and environment issues (the decision to establish such a climate delegation was a political initiative that further indicates Kristianstad's prioritization of this topic). All informants, especially the informant who has worked at all levels of governance in Sweden, spoke about the impact politicians can make. A Klimatkommunerna report had similar findings: municipalities emphasized the importance of political will at the local level and felt that climate questions needed to be raised on the political agenda (Klimatkommunerna, 2012, p. 8).

Reputation: highly influential. Two main reputational goals emerged: the desire to be an attractive place to live, and obtaining international recognition. The informant from Vellinge was the only one who explicitly spoke about the desire for the municipality to be an attractive place to live as a motivation for ambitious climate planning, though in Kristianstad this seemed to be taken somewhat as a given. Klimatkommunerna's coordinator observed that municipalities that understand the connection between climate/environmental progress and attractiveness tend to do better regarding climate work. Kristianstad and Vellinge also both mentioned seeking a good reputation and international recognition as a motivation. Kristianstad has already achieved this – the climate strategist proudly shared a New York Times article featuring the municipality's sustainability work (New York Times, 2010) – and Vellinge aspires to obtain recognition for sustainable cities work in the future. Hässleholm, on the other hand, is currently unsure what to aim for. As the informant noted, there is a big range between doing the bare minimum and becoming an international role model.

Vision: highly influential. This lack of a vision or clear aim is likely one of the biggest barriers to Hässleholm's climate work. For the other two municipalities, there seemed to be a clear understanding that the municipality should aim for a high level of climate work and therefore have ambitious climate policies.

Economic benefits: slightly influential. The economic benefits of climate action seemed to be a minor motivating factor. Skåne's environmental objectives document and information from all three municipalities mentioned the cost savings associated with improved energy efficiency, but none of the informants emphasized the importance of economic motivations or suggested it was the main driver of their climate actions.¹⁵

Grants/external support: slightly influential. Kristianstad cited KLIMP requirements as one initial drivers of climate policy formulation, and Hässleholm mentioned that it benefited from KLIMP funding in the past. Though KLIMP has since ended, there could still be opportunities to receive new government funds for climate work – perhaps an additional incentive to maintain robust and updated climate policies. However, the fact that all three municipalities have received climate grants shows that this factor alone does not determine level of success.

Fossil fuel-free: not influential. As signatories of Fossil Free Skåne, Kristianstad and Hässleholm aim to eliminate fossil fuel use from municipal operations, at least on paper. However, Vellinge currently seems to have more robust climate-related policies than Hässleholm, and it does not have such an explicit and ambitious goal; politicians declined to sign the initiative since they felt it was not realistic. It therefore seems that signing a commitment to become fossil fuel-free is not a significant determinant of climate policy success.

¹⁵ This differs somewhat from findings by Klimatkommunerna: according to one report, municipalities felt that economic profitability was most important for effective sustainability measures (such as district heating systems, collection of landfill gas, biogas, energy efficiency) and for achieving good short- and long-term results (Klimatkommunerna, 2012, p. 8).

Table 3. Key factors influencing municipal climate policy success

Governmentality component	Highly influential factors	Influential factors	Slightly influential factors	Non-influential factors
Problematization	Motivated individuals	Sense of responsibility	Public interest/awareness	Interest from companies/businesses
Regimes	Clear, strategic approach; Clear structure and organization	Harmonized and updated policy documents	Networks and voluntary commitments	
Endpoint	Political motivation; Reputation; Vision		Economic benefits; Grants/external support	Fossil fuel-free

6.2 Challenges

While the previous section examined the level of influence of factors that contribute to successful municipal climate governance, my results also reveal several challenges that all three cases experience: capacity, multi-level governance, and the intangible nature of climate change.

All municipalities mentioned challenges related to staff capacity. Hässleholm and Vellinge both expressed a desire for more staff dedicated to climate-related issues, Vellinge discussed the capacity challenges of the planning process, and Kristianstad spoke about the administrative burden of applying for grants. In line with my findings, a Klimatkommunerna report also found that municipalities consider it very important to have adequate personal resources for drafting project proposals, developing strategies, and identifying and securing work partners (Klimatkommunerna, 2012, p. 8).

There are also general challenges related to municipal-level climate governance. The centralized decision-making trend could hinder municipalities' abilities to effectively address complex problems that require cooperation and responsibility across a range of municipal actors. Contradictory signals from the national government regarding policies and regulations for renewable energy can cause tensions, as can planning restrictions due to Länsstyrelsen policies regarding urban development.

Informants from Hässleholm and Kristianstad explicitly noted the challenge of being motivated to address an issue such as climate change where the impacts are so intangible. While Hässleholm spoke about this in terms of the political cycle, informants from all municipalities mentioned this challenge in relation to economic prioritization. It is difficult to dedicate resources to policies that seek to address something with subtle, long-term impacts when concrete, tangible problems demand immediate attention (a point also raised by the Klimatkommunerna coordinator).

7 Discussion

The following sections offer a critique on the applicability of governmentality and a discussion of the implications of my findings.

7.1 Critical examination of the applicability of governmentality

Though the components of governmentality provided a helpful way to conceptualize and analyze my research, I found that the framework did not offer as much analytical support in understanding sequential components and challenges regarding municipal policymaking.

Adding a sequential dimension to the analysis framework would aid in understanding the process by which municipalities acquire robust climate-related policies. A discussion with the informant from Klimatkommunerna (Inf6) and reflections from case-specific findings suggest that this process could unfold as follows (see Figure 1): A municipality acquires politicians who are receptive to working with climate questions, even if they do not give these topics much weight. Motivated individuals within the municipality draw more attention to climate issues, and politicians gain a better understanding of the importance of addressing them. As politicians become more aware of how ambitious climate work relates to other priorities such as protecting citizens and providing an attractive living environment, climate becomes better integrated into the municipal vision. Eventually robust climate governance becomes part of the culture of how the municipality operates.

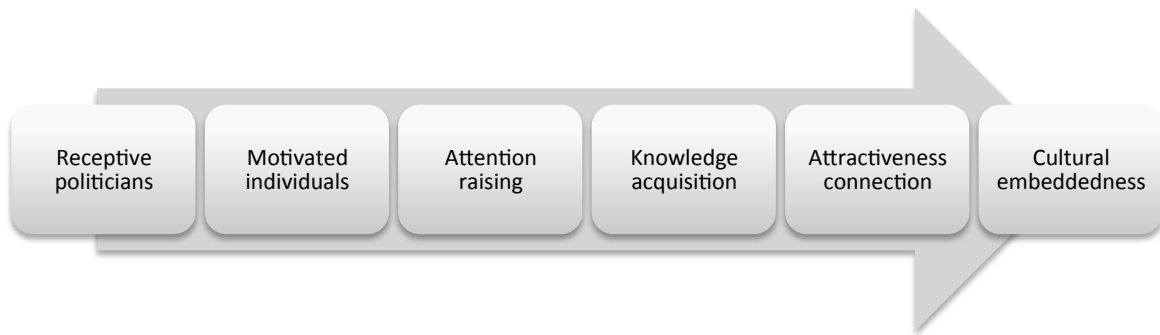


Figure 1. Possible process by which municipalities develop conditions that allow for ambitious climate policy

Kristianstad, the historically “successful” case, has reached this last stage; both informants seem to almost take it for granted that addressing climate change has been, is, and will be an important part of municipal operations. Vellinge, the “recent success,” seems at the point where politicians are receptive towards motivated individuals; there is a newfound interest in addressing climate challenges and an emerging political will to become a role model in this area. Vellinge also exhibits an awareness of the attractiveness connection; this sequence is not necessarily linear or identical from case-to-case. Though it has been more active with climate work in the past, Hässleholm now seems to struggle with attention-raising and knowledge acquisition. The environmental strategist appeared motivated, and seemed to feel that the main political barrier to climate work is a lack of direction rather than a disinterest in the issue.

My application of governmentality takes a somewhat flexible approach to understanding problematization and the utopian ideal endpoint. In terms of problematization, it seems useful to also look at motivation and drivers; understanding a problem is not the same as understanding why and how policymakers decide to address it. I also expand the endpoint component to include more minor aims or benefits; for instance, obtaining grants might not be the ultimate goal of creating an ambitious climate policy, but categorizing this factor as an endpoint seems the most logical in this study. Despite taking a broader understanding of these terms, I found that the governmentality lens is not well suited to accommodate the challenges experienced by municipalities, and therefore analyze these separately.

7.2 Implications of findings

These findings reveal several insights regarding the role of motivation, power, and agency in creating ambitious climate policy. As long as there are motivated actors within the municipal administration and a political context that is receptive to their ideas, both top-down and bottom-up initiatives can lead to policy changes. Informants’ experiences show that influential politicians and persistent and determined staff members are both able to make a difference. If politicians are inspired to create a

political climate delegation, as they did in Kristianstad, so much the better – but Vellinge proves that the power of driven individuals can still be strong enough to improve climate policy.

However, various subtle influences can undermine individuals' power and their motivation to address climate change. Media coverage often shapes perceptions of what is important, drawing attention away from climate and towards other challenges, and it also has the tendency to emphasize the severity of problems, which can lead to a sense of hopelessness. Mixed signals from regional- and national-level governing bodies can cause confusion and reduce motivation. Another source of confusion is a lack of clear municipal goals for climate and environment work, as seen in Hässleholm. Moreover, the very nature of climate change can reduce motivation to act, for several reasons. Effectively addressing climate change requires collaboration with outside actors – municipalities cannot solve the problem on their own. Addressing climate change also raises questions of priority and short-term vs. long-term tradeoffs, which present challenges with political cycles and budget decisions. All of these influences can cause feelings of confusion and powerlessness, which has serious implications for climate work, since findings indicate that motivated individuals within the municipal administration are a key element of success.

One curious point emerged regarding the connection between having an attractive municipality and ambitious climate work. Informants suggested politicians are motivated by this connection, but Hässleholm seems somewhat of a contrary example. Though its 2010 climate and energy plan mentions the correlation between addressing climate change and being an attractive place to live, it evidently was not enough of a motivation for the municipality to maintain a high level of ambition with harmonized, updated policies. This could mean that the attractiveness motivator is insufficient to overcome barriers such as municipal restructuring, staff turnover, and challenges regarding short-term vs. long-term tradeoffs. It could also be an illustration, as with Hässleholm's signing of Fossil Free Skåne, that having the right intentions on paper does not necessarily lead to outcomes.

In addition, it is noteworthy that the particular structure of the municipal administration does not seem to be significant in determining climate policy success, as long as lines of communication and responsibility are clear. This work is set up differently in Vellinge and Kristianstad, but both structures appear effective. As previously explained, Kristianstad maintains a high level of decentralization in how the municipal administration addresses climate-related issues, which is exactly what one informant believes is needed. However, Vellinge's smaller municipal administration with its clear and structured approach has also yielded ambitious climate policies. This suggests that the best system for robust climate governance depends on the individual municipal context.

8 Conclusion

In this final chapter, I briefly summarize my findings, reflect on my methodology, and offer suggestions for future research. I conclude with a short outlook on the broader implications of this work.

8.1 Summary

A comparative analysis of Hässleholm, Vellinge, and Kristianstad suggests that the most influential factors in determining municipal climate policy success include the presence of driven individuals within the municipal administration, following a clear organizational structure, implementing a strategic approach, and having clear political motivations such as a vision or reputational ambitions. Having a sense of municipal responsibility to address climate change and maintaining harmonized, up-to-date policy documents also have a notable influence. Public awareness of climate change impacts, membership of trans-municipal networks, and a desire for economic benefits associated with climate action seem to play a more minor role in shaping municipal climate governance. Climate awareness amongst companies and businesses and being a signatory of Fossil Free Skåne do not seem to particularly impact climate policy success.

While situation differs in each municipality, Vellinge and Kristianstad – the “success” cases – exhibit all of the most influential features. Hässleholm, by contrast, currently faces barriers with its climate work due to a lack of key aspects such as organizational structure and clear political vision.

8.2 Reflections

The MSDO approach worked well for this research because it eliminated confounding variables such as size of municipality, different regional contexts, and different national legislation. However, the small number of cases and the qualitative analysis techniques resulted in rather subjective findings. Both the municipalities and the informants were selected via purposive sampling. A number of my informants mentioned at times that what they said was subjective, based on their own opinions or viewpoints, and this thesis does not question their statements. As a qualitative researcher, my own views and perspectives also impacted my findings to some extent. Given the nature of my study, I found this somewhat unavoidable. In the following section I offer suggestions for future research; broadening the scope to include a larger sample size and to bring in quantitative elements could provide a more robust and objective result.

As with much case research, there are limitations in the extent to which this can be generalized, given subjectivity and small number of cases, but the findings do offer food for thought. Bringing in a greater number of municipalities and quantitative analysis techniques would assist in providing lessons that are more likely to apply across a broader range of municipalities – or at least would give more confidence in this area. Perhaps the insights generated here are applicable to larger cities in Sweden, or to municipalities in other countries, but it is impossible to tell without further research.

8.3 Suggestions for future research

As mentioned in the limitations section, both time and space restricted the amount of depth I was able to go into with this thesis. Further research could provide an enhanced understanding of the broader influences that impact how Swedish municipalities approach climate policy. Expanding beyond the municipal level, it would be interesting to interview relevant actors at Länsstyrelsen, the CAB. Informants suggested that there have been instances of conflict between these two levels of governance, and hearing the regional perspective could offer a more complete picture. If time had permitted, I would also have liked to investigate in more detail relevant regional- and national-level legislation besides the EQOs, including the national climate and energy policy and the two most recent Planning and Building Acts, which play a role in determining how municipalities are allowed to develop.

As previously explained, one unavoidable shortcoming of this type of comparative study with a small number of cases is that it does not easily lend itself to generalizable lessons. It would be interesting to expand the scope of this study to include a broader range of municipalities, of different sizes and belonging to different Swedish regions. This could offer a more robust understanding of the factors that impact climate policy in Swedish municipalities in general. Taking the work one step further, replicating this study in other countries and comparing results could eventually lead to a more internationally applicable picture and lessons that could be transferred elsewhere across the globe. These types of findings could benefit at least two important groups: cities in developed countries that are large resource-consumers and GHG-emitters, and thus need to reduce their GHG emissions, and cities in developing countries that are expanding rapidly and could gain from doing so in a more climate-friendly, sustainable way.

8.4 Outlook

An understanding of factors that lead to ambitious climate policy is important in a context like Sweden where there is a great deal of autonomy at the local level and many possibilities to make an

impact. Skåne has a number of climate change mitigation possibilities, but these can only be realized via effective municipal policy. Though certain insights offered by this thesis are unique to climate change, some lessons could apply to how municipalities address other environmental and sustainability challenges as well. Practitioners such as those interviewed for this study, working for municipal administrations or trans-municipal associations, might benefit from these findings by either gaining insights on the experiences of other municipalities, or supporting trends they have already observed.

Given the types of issues municipal policies are able to regulate, and the climate change impact of many activities occurring within municipal boundaries, it is clear that municipal climate governance can play a key role in addressing the sustainability challenge of climate change.

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Appendices

Appendix 1 List of key policy documents

Table 3. Swedish titles of policy documents and their English equivalents. Note: This is not an exhaustive list, merely what I explicitly mention in the body of my thesis.

Swedish title	English equivalent
Regional level	
<i>Miljömål</i>	Environmental quality objectives (EQOs)
<i>Skånska åtgärder för miljömålen</i>	Measures for the environmental objectives
<i>Klimatmål</i>	Climate objectives
<i>Klimat- och energistrategi</i>	Climate and energy strategy
Hässelholm	
<i>Miljömålsprogram</i>	Environmental objectives program
<i>Energi- och klimatplan</i>	Energy and climate plan
Vellinge	
<i>Lokala miljömål</i>	Municipal executive board
<i>Lokala miljömål åtgärdsprogram</i>	Local environmental quality objectives
<i>Energi- och klimatprogram</i>	Local environmental quality objectives action plan
<i>Program för energieffektivisering</i>	Energy and climate program Energy efficiency program
Kristianstad	
<i>Miljömål</i>	Environmental quality objectives
<i>Förslag till Miljömål</i>	Draft environmental quality objectives
<i>Klimatvisionen</i>	Climate vision
<i>Klimatstrategi och energiplan inkl strategi för energieffektivisering</i>	Climate strategy
<i>Bakgrund och nulägesbeskrivning</i>	Climate strategy and energy plan including strategy for energy efficiency
<i>Klimatstrategi och energiplan samt strategi för energieffektiviseringsstödet</i>	Background and status description
<i>Mål och handlingsplan</i>	Climate strategy and energy plan with strategy for energy efficiency support Goals and action plan

Appendix 2 List of informants

Table 4. Name and affiliation of informants and date interviewed

Informant number	Name	Affiliation	Title (Swedish)	Title (English)	Date interviewed
Inf1	Eva Hedenfelt	Hässleholm	<i>Miljöstrateg</i>	Environmental strategist	18 March 2015
Inf2	Jonas Andermyr	Vellinge	<i>Miljö- och klimatstrateg</i>	Environmental and climate strategist	19 March 2015
Inf3	Lennart Erfors	Kristianstad	<i>Klimatstrateg</i>	Climate strategist	07 April 2015
Inf4	Katrine Svensson	Kristianstad	<i>Miljöinformatör</i>	Environment communications officer	07 April 2015
Inf5	Katarina Pelin	Båstad	<i>Kommunchef i Båstadskommun</i>	CEO Båstad Municipality	27 March 2015 (via telephone)
Inf6	Filippa Borgström	Klimatkommunerna	<i>Verksamhetsledare</i>	Coordinator	27 April 2015

Appendix 3 Explanation of rankings

Table 5. Description of ranking of level of influence factors had on successful municipal climate policy

Ranking	Description
Highly influential	Present in Kristianstad and Vellinge but absent in Hässleholm, and informants emphasized the importance
Influential	Present in Kristianstad and Vellinge but absent in Hässleholm, but informants did not explicitly describe the importance, or Present in all three cases, and informants emphasized the importance
Slightly influential	Present in all three cases, but informants did not stress whether or not it was important
Non-influential	Present in all three cases, and informants said it was not so important

Appendix 4 Description of networks and voluntary initiatives

Agenda 21

Agenda 21 is a voluntary, non-binding document to guide countries towards more sustainable development trajectories. It emerged from the 1992 Earth Summit in Rio and contains a section on local-level implementation, noting that local-level actions are the site of both the causes of and solutions to many sustainability challenges, and that local authorities are key actors: “As the level of governance closest to the people, they play a vital role in educating, mobilizing and responding to the public to promote sustainable development” (Agenda 21, Chapter 28).

Klimatsamverkan Skåne

Klimatsamverkan Skåne was established in 2010 to bring together Region Skåne, Länsstyrelsen Skåne, and local municipalities to address climate issues, with the motto “consensus, collaboration, and coordination” (Klimatsamverkan Skåne, n.d.). It takes the perspective that it should be easy to live in a climate-friendly way, seeks to convert climate-smart ideas into concrete actions, and believes that local actors need to play a role in addressing the global challenge of climate change. One prominent initiative is Fossil Free Skåne, which requires signatories to agree to eliminate their fossil fuel use by 2020 (Klimatsamverkan Skåne, n.d.).

Klimatkommunerna

Established as a network in 2003 and formally recognized as an association in 2008, Klimatkommunerna is a group of 33 municipalities and regional actors that supports efforts to reduce GHG emissions in Sweden (Klimatkommunerna, n.d.). It highlights opportunities, barriers, and drivers and serves as a knowledge-sharing platform where municipalities exchange information and collaborate. Municipalities that wish to join must demonstrate a political commitment to addressing climate change by fulfilling certain conditions, including a conducting a baseline emissions inventory, having an emissions reduction action plan, and updating the network about ongoing work (Klimatkommunerna, n.d.).

Appendix 5 Supplemental material

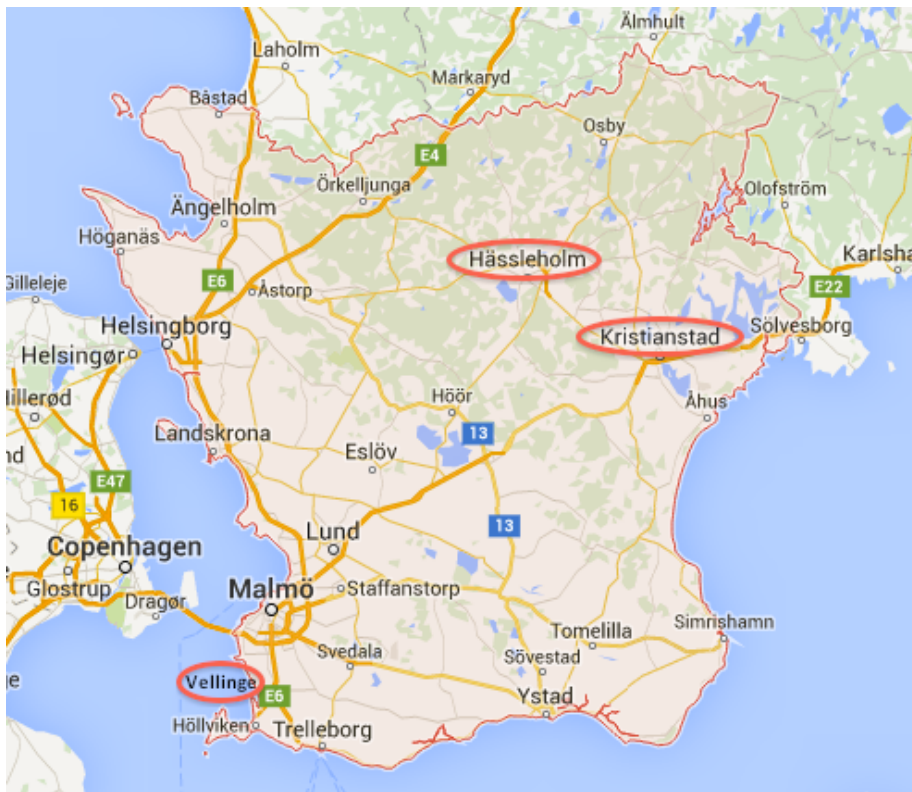
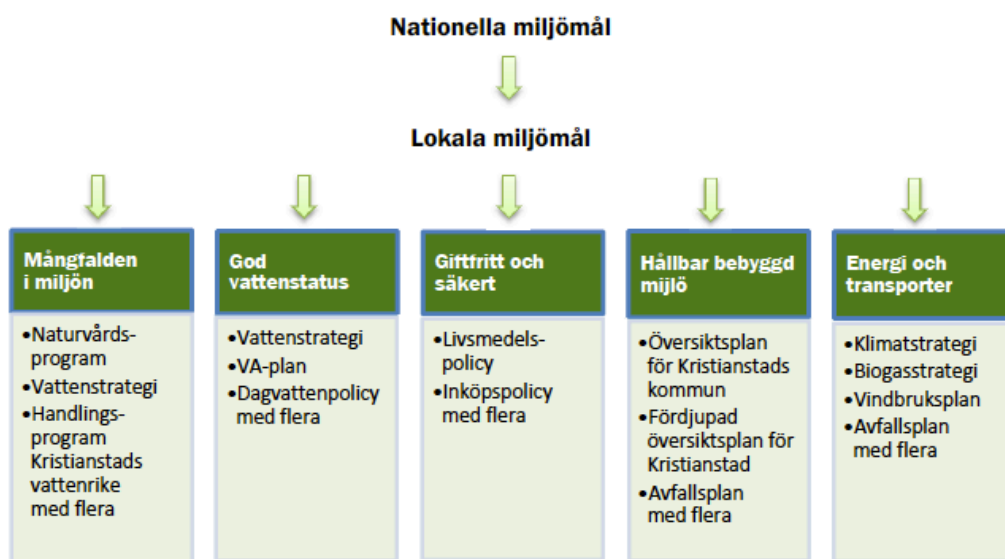


Figure 2. Map of Skåne illustrating location of case studies. Source: Google (addition of Vellinge and red circles are my own modification).



Översikt över styrdokument kopplade till de olika målområdena.

Figure 3. Categorization of localized environmental objectives in Kristianstad's proposed updated environmental objectives document. Source: Kristianstads kommun, 2015. *Förslag till Miljömål för Kristianstads kommun 2015-2019*, p. 8.