'Politics you can eat'

Insights from the Implementation of Södertälje Municipality's Food Supply Strategy

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Degree Project in Energy and Environment,

Second cycle, 30 credits

Abstract

The failures of the governance of food systems in the past has led to the exposure of vulnerabilities within today's food systems. Thus, rethinking how food systems are planned is imperative to ensuring food security in the future. This thesis aims to assess the progress of the implementation of Södertälje municipality's food supply strategy, as well as understanding key barriers and catalysts to implementing sustainable and resilient food systems at a local level. Through semi-formal interviews and a literature review, key insights into food systems governance were discerned. The food supply strategy of Södertälje municipality has begun to be implemented. However, barriers have occurred that have caused the implementation to be slower than anticipated. These barriers are lack of communication regarding the roles and responsibilities within the municipality, co-ordinational issues, the boundaries of municipal authority, a lack of internal alignment, a lack of time and resources, and too few follow-ups. However, these have been offset by catalysts that can help to navigate how implementation can be remedied in the future. These catalysts are champions of policy, a strong policy base and history within the municipality, and political support. The thesis concludes by asserting that increased communication of the strategy, and the clear delegation of goals and responsibilities would enhance implementation in the future.

Key words:

Food Supply Strategy, Food Preparedness, Resilience, Governance, Policy Implementation, Inter-municipal Collaboration, Food System Governance

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1. Introduction

Due to recent crises, the question of how countries will feed their populations in the future has become of paramount importance. The exposure of vulnerabilities within food systems by the Covid-19 pandemic and the war in Ukraine underlined the need for developing resilient food systems, and preparedness in the case of future crisis events (The Swedish Food Agency, 2023). The Swedish Food Agency states that food supply preparedness regards Sweden's "ability to access food and water throughout different crises- and in extreme cases, war" (ibid). They go on to suggest that food supply preparedness is about more than creating food warehouses, it is about creating a robust system which emphasises the functioning of all the mechanisms that support the food supply (ibid). In the long run, rethinking how food systems work can help society emerge from an import-based, large-scale global food system that is vulnerable to crises (Eriksson, 2018), into a system that promotes sustainable development and boasts resilience in its capacity to withstand crises that will be more prominent in the future (ibid), regardless of the threat of disruptions.

There are inherent weaknesses in the current global food system. Not only is the system vulnerable to risks due to its dependence on natural resources and the climate, documented recurrent disasters in recent history have the potential to threaten food security and subvert agricultural sustainability efforts globally (FAO, 2023). The vulnerability of global food systems is perpetuated by intense globalisation and interdependencies within the system that can create detrimental cascading effects in the event of a disruption to the system (Kuylenstierna et al., 2019). Considering these vulnerabilities, it is imperative that measures be taken to address the fragilities within food systems, safeguarding food system sustainability and food security worldwide.

The Swedish food system shares significant parallels with the global food system. The Swedish food system is largely import-dependent, with only around 50 percent of food products being produced in Sweden, a notable decline from the 75 percent domestically produced in the 1990's (LRF, 2022). Furthermore, the globalisation of the food sector has led to a dependence on so-called "just in time" deliveries, where food and resources are delivered as they are needed, forming a dependence on imports (The Swedish Food Agency, 2023). Not only is the system reliant on food from other countries, but it is also reliant on imports for other vital resources such as fertiliser, fuel, insecticides, and animal feed (SLU, 2018). Increased self-sufficiency within the food supply system can help to establish sustainability with Sweden's food systems (LRF, 2022). This is not only essential for handling crises and disturbances within the system, but in peace time it results in a production of food with a lower impact on the climate and more jobs within the agricultural sector (ibid). Therefore, creating robust food systems that foster self-sufficiency is a necessity for shaping the future trajectory of Swedish food systems.

Topics of food supply preparedness have become important discourse in Swedish politics in recent years. Sweden maintained warehouses holding supplies for food and other critical supplies for the event of a war or crisis until the 1990's, when they were then dismantled (MSB, n.d.). Moreover, due to the current political instability surrounding Sweden, ideas of total defence and civil defence were reinstated in 2015 (Andersson, 2022). Civil defence regards actors in both the public and private sectors concerning critical societal functions that need to be preserved in the case of a crisis, such as food and water supplies (ibid). Furthermore, in 2017, the Swedish government released a food supply strategy that focused on creating a sustainable and competitive food system, where it was also mentioned that the vulnerabilities of the Swedish food supply system would be addressed (Government Offices of Sweden, 2017).

These vulnerabilities are a part of a larger, systemic issue. It can be argued that creating longterm sustainability within the food supply system would be preferable to addressing vulnerabilities in the short term by creating food supply warehouses to prepare for crisis scenarios (Eriksson, 2018). Thus, civil defence should focus on increasing Sweden's selfsufficiency of critical supplies, as well as creating a robust production system in peace time, so that the system can absorb shocks in the case of a crisis (ibid). Moreover, due to the reinvigorated interest in food preparedness planning, sustainable food supply planning has been given a renaissance. "The food preparedness perspective can be used as another driving factor to carry out the changeover within the food system that is necessary for environmental and sustainability reasons" (Eriksson, 2018, pg. 24). This perspective could be used to rethink the system and pave a way forward to sustainable and resilient food systems in the future.

Amid the upsurge of interest in securing Sweden's food supply, plans have begun to be established within Sweden as to how sustainable and resilient systems can be established. At a national level, an official national investigation was initiated to investigate how Sweden can increase its food supply preparedness, covering aspects such as municipal responsibilities, food storage warehouses, and protection of farmland (SOU 2024:8). However, it is not only the national planning level that is important to food system planning. Local governments, such as municipalities, play a vital role in the planning of food systems, especially in preparing for, and recovering from impacts of disruptive events (Moore et al., 2022). An integral component of creating a robust food system is planning. "Good governance is crucial in tackling the root causes of food insecurity" (Zerbian & Romero, 2020, pg. 794). Södertälje municipality, a municipality located in the southeast of Sweden, was among the first to release a food supply strategy. This strategy provides information on the food systems of Södertälje, as well as outlines three areas of action that cover urban planning and management, business and municipal operational activities, and crisis preparedness (Södertälje Municipality, 2022). Thus, given the critical nature of creating resilient and sustainable food systems, exploring how Södertälje's food supply strategy was implemented can provide insights into how best to apply such strategies not only in Sweden, but also in other countries.

1.1   Aim and Research Questions

In this thesis, the case of Södertälje municipality will be assessed. This thesis will be exploratory in nature and aims to assess the progression of the implementation of Södertälje municipality's food supply strategy, to see how it has been incorporated across different departments within the municipality, and to analyse the barriers and catalysts for implementing food policy. The results will be analysed through frameworks surrounding food planning and policy, and the barriers and catalysts found in the literature review crossanalysed with the findings from the interviews. The thesis hopes to broaden and enhance the discourse regarding food planning in Södertälje municipality and increase knowledge surrounding the implementation of sustainability initiatives within food systems. The aim of this thesis is two-fold:

- Assess how the implementation of the food supply strategy is progressing, what barriers and catalysts have occurred, and what the municipality can do to aid in the progression of the implementation.
- Identify important factors learnt from Södertälje municipality that can be applied in food supply planning.

The aim is to be investigated with the following research questions:

1. How is the implementation of Södertälje municipality's food supply strategy progressing?
2. What are the barriers and catalysts of implementation that can be identified in the case of Södertälje municipality?
3. What insights can be learned from the case of Södertälje municipality regarding the policy and implementation of the food supply strategy?

2. Background

2.1 What is Meant by Food Supply?

There are three different terms that will be used in this thesis: food provisions, food supply, and food preparedness. Food provisions (Swe. livsmedel) are defined as, "all substances or products, regardless of whether they are processed, partially processed, or unprocessed, that are intended to or can reasonably be expected to be consumed by humans. Food provisions include beverages, chewing gum, and all substances, including water, intentionally added to the food during its production, preparation, or treatment." (Swedish Food Agency, 2023a). Thus, food provisions are everything intended for human consumption, including food and water.

Food supply encompasses the measures required to produce food for a society. This definition is emphasised by the Swedish Food Agency, who suggest that the food supply should be seen as a holistic concept which includes all the processes required to supply food provisions from "farm to table" (Swedish Food Agency, 2020, pg 5). In an actor-rich system, food supply entails everything from "primary production, processing, import, distribution and transport, to selling and serving" (ibid). Furthermore, highlighted in the explanation of the food supply is that the whole food supply system is reliant on staffing, IT-systems and technology, economic systems, electricity, transports, and other provisions such as additives, and packaging materials (ibid).

Food preparedness (*Swe. livsmedelsberedskap*) is another term that is pertinent to the planning of the food supply. It can be defined as "the preservation/maintenance of the food supply, which is essential for the survival of the population, to ensure the most important societal functions, or to support the military's defence abilities" (SOU 2024:8). It can be argued that by creating a robust and resilient food supply Sweden's food security will be enhanced.

2.2 Resilience in Food Systems

Resilience has become a popular theme in describing future food systems, yet how does it relate to them? Food systems encompass a range of different activities and actors, much like the food supply. According to Béné (2020), food systems can be defined as:

> "All the elements (environment, people, inputs, processes, infrastructures, institutions, etc.) and activities that relate to the production, processing, distribution, preparation consumption [and waste management] of food, and the output of these activities, including socioeconomic and environmental outcomes."

This makes them a complex web of processes, stakeholders, legal frameworks, and people. Thus, food systems can be seen as complex social-ecological systems (SES) (Zurek et al., 2022). These SES spread across many geographical boundaries, and the interplay between actors, legal frameworks, and operating systems.

Historically the resilience of food systems has emerged to ensure food security in the face of various stressors and challenges. Food security was defined at the 1996 World Food Summit as, "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO, 2008). Consequently, the concept of food system resilience arose to help ensure food for all (Zurek et al., 2022). The complex nature of food systems coupled with the wicked problems posed by climate change and other stressors, poses a threat to food security.

There are many definitions of food system resilience. The Centre for a Liveable Future defines resilient food systems as:

> "Able to withstand and recover from disruptions in a way that ensures a sufficient supply of acceptable and accessible food for all" (n.d.).

Food systems resilience can also be defined in a more urban sense, where food system resilience entails the ability of a system to provide food for a city ensuring food security for residents (Biehl et al., 2018). Furthermore, three vital components of resilience, according to Meuwissen et al. (2019) are: robustness, adaptability, and transformability. Robustness is defined as the ability for a system to withstand disruptions (ibid). While adaptability can be expressed as the system's ability to return to normal after a disruption (ibid). The last of the three, transformability, is the system's ability to embrace flexibility; it denotes the capacity to reorder the mechanisms of the system in the face of a severe shock or long-endured stressors that make the normal functioning of the system impossible (ibid).

Food system resilience ties in with creating a sustainable food system and can also relate to Swedish food supply planning. Mistra Food Futures, a research program pertaining to the creation of a sustainable food system in Sweden, has produced a policy brief containing suggestions as to why resilience is important for food preparedness (2024). The three primary recommendations are as follows (Mistra Food Futures, 2024): "treat food preparedness and the sustainability transition as connected policy arenas," "complete short-term solutions with long-term strategies," and that "knowledge already exists to be able to create sustainable preparedness."

Treating food preparedness and sustainability as the same issue will allow for the creation of a system that can withstand shocks, therefore protecting food security, and working in synergy to solve the issues created by current farming and agriculture practices within the food system. Furthermore, creating a resilient food system will create a long-term strategy for food production, one that is less reliant on import, can withstand issues brought about by climate change, and has fewer vulnerabilities.

2.3 The Swedish Planning System

To be able to understand the planning process in Södertälje municipality, it is imperative to grasp how planning works in Sweden. No country exists in a vacuum, Sweden is subject to laws and regulations at an international level, and both the United Nations (UN) and the European Union (EU) greatly affect how planning takes place in Sweden (Swedish Housing Agency, 2021). Policies such as the European Green New deal shape how Europe, and thus Sweden, is planned. For example, the agricultural aspects of the deal focus on the strengthening of the EU's food systems, as well as has the goal of ensuring that those food systems are sustainable (European Commission, 2024). The deal also plans for increased food security due to the risks posed by geopolitical uncertainties, climate change, and loss of biodiversity (ibid).

Sweden is organised into a system where there are three primary levels: national, regional, and municipal (Swedish Housing Agency, 2021). The state sets frameworks for planning through national goals that are carried out at a regional and municipal level, such as the national food strategy released in 2017 (ibid). Multiple county administrative boards (Swe. länsstyrelser) coordinate and safeguard national interests, such as environmental standards, inter-municipal interests, and health, safety, and risk management (ibid). Furthermore, as established in the Planning and Building Act (PBL), the state influences land-use and conditions for regional and conditional planning through sectoral planning such as within the energy and transport sectors (ibid).

The specific planning of land and water usage falls to the municipalities. Within their geographical boundaries the municipalities have a planning monopoly (Swedish Housing Agency, 2021). As a part of the municipal planning process, each municipality must produce a comprehensive plan which acts as a guide for planning processes within the municipality and shows how the planned development adheres to national and regional goals and regulations (ibid). Moreover, as a continuation from the comprehensive plans, municipalities often provide other governing documents called strategic documents, that help to specify the specific planning required for other areas or questions (Karlskrona Municipality, 2024). These governing documents could include environmental strategies, wind power strategies, or even food supply and crisis strategies.

In a crisis, the role of a municipality in food supply planning is outlined by various laws and regulations. The law regarding extraordinary events outlines that municipalities must maintain societally important functions, coordinate within the geographical boundaries of the municipality, and provide information to the inhabitants of the municipality (2006:544). However, to be able to fulfil these requirements in a crisis, the municipality must plan and use tools to ensure that if a crisis were to come, they would be prepared.

2.3.1 The Power of the Municipality as a Tool for Sustainability

Municipalities can use their influence as a tool to create change. As shown in figure 1 below, the municipality has three kinds of tools: direct, indirect, and through influence. For example, the municipality can directly impact change through changing the operations of the municipality by choosing renewable energy sources and reducing food waste. The ability to indirectly affect change from a planning perspective lies in creating conditions for citizens to live in a more sustainable way, by for example providing sufficient walking infrastructure to reduce car dependency. Finally, by using influence through authority, the municipality can challenge stakeholders regionally and nationally to instigate change at those levels, indirectly affecting the frameworks that govern the municipality's actions (ibid). (Södertälje Municipality, 2022a, pg.10)
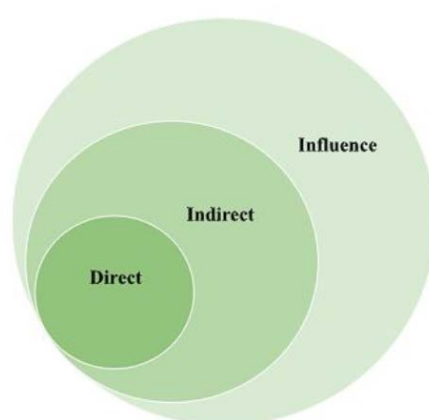

Figure 1. Municipal Influence (Based on: Södertälje Municipality, 2022a, pg. 10)

Through using municipal influence, the municipality holds significant authority in shaping food systems through their operational capacities. This underscores the pivotal role municipalities play in fostering sustainable and resilient food supply planning in Sweden. An example of the power municipalities hold in creating sustainable systems is through the application of sustainable practice through public meal service (Swe. måltidsverksamhet). Municipalities in Sweden are responsible for serving around three million meals every day (SOU 2024:8). This food can be seen as a vital tool for creating sustainability and resilience within the food system, and currently up to 80% of Sweden's municipalities have goals for obtaining more organic food for their meal services (Swedish Food Agency, 2022). These policy instruments are essential in moving the plans into reality (Sibbing et al., 2019), and should be utilized in planning (Fernqvist & Jönsson, 2023).

2.3.2 Outside of Municipal Authority:

The Market, Consumption Patterns and The Looming Threat of Climate Change Although municipalities have power to plan within their geographical boundaries, some areas fall outside of the municipality's authority. An example of this is the liberalisation and globalisation of the food system and market. As previously mentioned, up until the 1990's, Sweden only imported 25 percent of its food, compared to the 50 percent that is currently imported (LRF, 2022). In 1995, a monumental step occurred for Sweden: they joined the EU (European Commission, n.d.). In the 1990s, many factors coincided which led to decreased self-sufficiency in the Swedish food system.

The Swedish agricultural sector was deregulated in 1990 and policies to favour national agricultural production at the expense of free trade were abandoned (Eriksson & Peltomaa, 2017). Further, with Sweden's accension to the EU in 1995, Sweden became exposed to the EU single market and became subject to EU policies such as the Common Agricultural Policy (CAP), and as a result Swedish agriculture was exposed to increased international competition from within the EU, as well as further competition from outside of the EU because of the EU's trade agreements with the World Trade Organisation (WTO) (ibid). As previously mentioned, municipalities operate within the governance frameworks to which Sweden is subject, including the policies of the EU and in accordance with Sweden's other international obligations. Hence, it is not within the power of Swedish municipalities to directly affect the international policies that Sweden is subject to at a national level, arguably meaning that since the national agricultural policy of Sweden moved towards further globalisation, municipalities were affected without much meaningful recourse.

Another factor that is outside of municipal control is consumption. This factor is two-fold: the first fold being food sold by grocery stores affecting what consumers buy, and the second being consumer habits themselves. This is somewhat of a chicken-or-the-egg scenario; yet these factors both greatly affect the sustainability of the food system. The 'big three' grocers in Sweden are Axfood, ICA, and Coop which sell for 90 percent of the total food in Sweden (Axfood, n.d.), leading to somewhat of an oligopoly that gives these three companies power over the Swedish market. This means that when it comes sustainability, these chains can act as a sort of de facto power in progress (Mont et al., 2015). The chains have the power to promote sustainability from farm to fork, and inform customers about the choices they are making, yet change is going slowly due to a lack of coherent policy and regulations and a lack of support from customers (ibid). An example is that in 2023 the total amount of ecological food sold was 4.4 percent, a drop from 6.3 percent in 2020 (Swedish Grocers, 2024). This is where the chicken-or- the-egg scenario becomes relevant, stores need to provide more sustainable options for consumers, but if consumers are not buying the options, it becomes unfeasible for stores to promote sustainability initiatives. Municipalities do not have direct control over consumer habits and can only affect consumer choices through more indirect methods (André et al. 2021).

It would be amiss to not mention the effects on climate change and the unpredictability it brings on food systems. Climate change is a looming threat over Swedish food production. Although climate change may lead to more favourable conditions to Swedish agriculture, the unpredictability of severe weather events may cause changes in production (Horn et al., 2022). For example, between 2017 and 2018 the Swedish production of winter wheat was reduced by over half (ibid). The crop reduced from 3 million tonnes in 2017 to 1.4 million tonnes in 2018 due to extreme heatwaves (ibid). Afterwards, the crop rebounded in 2019 with a 3.3 million tonne yield (ibid), showing that with extreme weather events, crop yields will become more varying, potentially leaving Sweden with a deficit of food with the increase of extreme weather events. Municipalities cannot directly affect the extreme weather and other impacts of climate change, yet through planning for a more resilient system, the effects could arguably be lessened.

While municipalities may not have the authority to transform many aspects of society directly, it can be argued that through utilising their power and monopoly over land and water planning, steps can be made to affect progress. Using food planning to reimagine the food system could arguably allow municipalities to create as much change within the food system as is within their authority.

2.4 Food Planning

As previously outlined, the world's food systems are in peril. Thus, rethinking these systems and how they are planned could be argued to be essential for the survival of humanity. As mentioned, Swedish municipalities have a monopoly over land and water planning within their geographical regions, and through strategic planning, municipalities can pave the way for their future, planning what needs to be changed to build a sustainable society. This is, or should not be, any different for the food system even though historically urban planning has not regarded food with the same importance as other vital resources. This is exclaimed by Kevin Morgan (2009, pg. 341) who states:

> "Among the basic essentials for life- air, water, shelter and food- planners have traditionally addressed them all with the conspicuous exception of food."

A municipal food strategy is a "road map" that allows the municipality to navigate the entirety of the food system in a singular policy framework, covering all the nuances of the system from production to consumption (Mansfield & Mendes, 2012). Due to the complexity of the food system, food strategies can be difficult to implement, and often require collaboration within the municipality, and between the municipality and other stakeholders (ibid). In essence, food strategies help to guide the work of the municipality to establish desired food systems.

The planning and governance of food systems can be crucial for success in building sustainable food systems. "Food planning" (Swe. integrerad livsmedelsplanering) ensures that a more sustainable food system can be built by governing food differently than in the past (Fernqvist & Jönsson, 2023). This idea came from a policy brief by Fernqvist & Jönsson (2023), that highlighted the need to think about how food is planned differently in Sweden.

> "Assuming a holistic approach to food planning to ensure a robust food system in one uncertain and changing time. [We] recommend integrated food planning – a way for society and decision-makers to tackle and prioritise food issues in a sustainable way at local, regional, and national level" (Fernqvist & Jönsson, 2023, pg. 1).

Yet, why is food planning a better way to think about Swedish food systems? To understand this, three main sources were used: Mansfield & Mendes (2012) who assess the ability of three cities in the global north in their abilities to develop and implement food policies, MacRae (1999) who assesses food policy failure in the Canadian food system, and finally Fernqvist & Jönsson (2023), who produced a policy brief highlighting critical recommendations to encourage food planning in Sweden. In each of these sources, the importance of food planning is elaborated on, and thus provide a reason as to why food planning and governance within food planning is crucial to reforming the way food systems are considered from a planning perspective.

2.4.1 Why work with the food system?

The food system is complex. There are many stakeholders all with different goals, aims, and desires (Mansfield & Mendes, 2012). The food sector also has different development goals, such as: "land-use… and biological diversity, food supply and crisis preparedness, or health, nutrition and food safety" (Fernqvist & Jönsson, 2023, pg. 2). In the past, these areas have all been navigated separately (ibid). Oftentimes, questions regarding food are solved by different departments, sometimes departments that are not related to sustainability (ibid). "This needs to change" (ibid).

In a similar vein to MacRae (1999), Fernqvist & Jönsson suggest increased coordination to solve the complex issues of the food system. For example, figure 2 below shows a translated copy of a diagram explaining how collaboration that has previously been lacking in the food arena can help to integrate questions regarding food to help create robustness and sustainability within food systems (ibid).
In a nod to resilience thinking, MacRae discusses the importance of using an ecological model to understand food policy (1999, pg. 189-190). MacRae states:

"People speak of an organisation as a miniature ecosystem; of its uniqueness; of its symbiotic relationships, internal consistency, and integrity; and of complex webs of relationships, processes and structures" (1999).

By utilising food planning and using a holistic view of the food system, conflicts will be revealed, synergies divulged, and problems solved (Fernqvist & Jönsson, 2023). The isolation between different sectors could be reconfigured, and food planning, met with collaboration and coordination between stakeholders, could arguably help to integrate parts of planning previously separate, to collaborate towards a desired future within food systems.

An example of how collaboration was presented in the literature, was by the establishment of Food Policy Councils (FPCs) (Swe. matråd). FPCs are a way in which governing bodies can encourage citizen participation in food planning, which can encourage personal food production, smaller scale distribution, and knowledge sharing (Fernqvist & Jönsson, 2023). Mansfield & Mendes (2012) suggest that each of the cities they assessed perceived these FPCs as "strategic brokers" of food policy issues and crucial for the increased success of food policy implementation, while concurrently describing that increased collaboration helps to blur the lines between government employees, bureaucrats, volunteers, and the public, to name a few. These "key intermediaries" are thus essential for the "furthering food strategy objectives" (ibid). Though, they highlight that local governments still have a key role in providing leadership, by increasing this collaboration, local governance can be transformed, resulting in a more successful implementation of food policies (ibid). This example accentuates the need for more collaboration within the food system, something that is highlighted as essential within food planning for triumphing over the complex issues of the food system today (Fernqvist & Jönsson, 2023), and turning food systems into the more resilient and sustainable systems desired for the future.
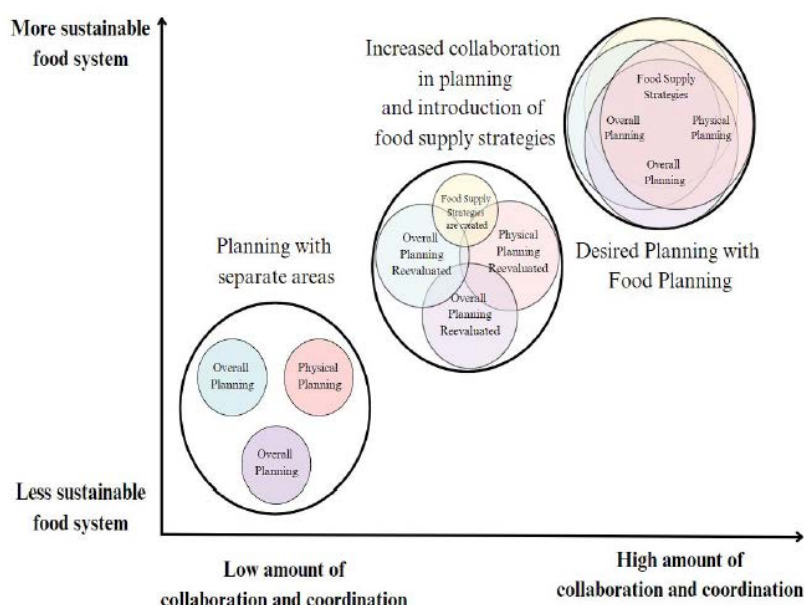

Figure 2. How food policy can create a more sustainable food system (Translated version based on: SLU, 2023)

2.4.2 Achieving more through food planning and goal setting

Setting a clear goal for what the system is to achieve is essential to food system planning. The goal is the vision of the system that the governing body wants to achieve (Fernqvist & Jönsson, 2023). By identifying a goal, governing bodies can be proactive in their planning measures, rather than being reactive (ibid). Furthermore, establishing the actions that need to be implemented for each of the goals, who is responsible for the actions, and the priority of these actions is important to include in food planning to direct actors through the complexity of the urban metabolism of food planning (de Zeeuw & Dubbeling, 2015, pg. 74). By identifying clear roles and responsibilities, the governing body can ascertain what different actors should be responsible for (Fernqvist & Jönsson, 2023). This is also highlighted by MacRae, stating that roles should be integrated and transdisciplinary (1999). Food planning then helps to navigate the goals of the system, helping to achieve goals that perhaps not be attained otherwise.

There is much more to food planning, yet in summary it could allow food systems to be considered in a way which encourages collaboration and helps to achieve goals that will help to build a resilient, and sustainable food system. Arguably, food planning could be an incredible tool for local planning authorities, as they navigate the challenges that the future brings, structuring a system that has the potential to adapt to change and foster stability.

2.5 Theoretical Framework

In this section, a theoretical framework has been developed to better understand food systems, resilience, the roles and limitations of the municipalities in Sweden, and finally food planning, and why rethinking the food system can benefit planning authorities. There was no specific framework or even a checklist that has been produced that municipalities, or governments in general, could follow to encourage better food policy and implementation. The closest that was found was the list of recommendations produced by Fernqvist and Jönsson, and when compared to Mansfield & Mendes and MacRae, similar themes became evident across these sources of literature. From what is gathered from the literature thus far, food planning encourages collaboration and could help to achieve goals within the food system in a more comprehensive way.

As a part of the methodology of this essay, this framework will be developed further through a literature review that is presented as a result in section 5. This section specifically highlights barriers and catalysts within municipal food planning and implementation. The framework above allows for an initial understanding of why food planning is important and displays how food planning can be used as a tool to increase collaboration and achieve goals.

3. Case Study Description: SödertäljeMunicipality

Södertälje municipality lies in the southeast of Sweden and is a part of the wider Stockholm region. Currently home to 102,519 inhabitants (Södertälje Municipality, 2024), Södertälje is expected to grow and has been appointed as one of the "city cores" in the regional development plan for 2050 (RUFS) within the Stockholm region (Region Stockholm, 2024a). This entails that Södertälje will become a junction point within the region, providing residents with proximity to their livelihoods and needs (ibid). Södertälje municipality is also leading the way in its work with climate adaptation, ranking third in the region according to the Swedish Environmental Institute (IVL, 2023). Furthermore, Södertälje has a "very stable political situation" (Karlsson & Nyrerod, 2019, pg. 3). Before 2022, Södertälje had relative political stability for 32 years, led primarily by the social democrats with a red/green alliance (Desai, 2022). Since 2022 the social democrats have shared power with 'Moderaterna' and the Green Party (Klintbo Skilje, 2022).

Södertälje municipality has a long history of working with food-related questions. This work started in 2001 with the establishment of a program that used the municipality's purchasing power within the public meals program as a tool for sustainable development, spearheaded by the municipality's award-winning dietary unit (Agri-Urban, 2018). In 2010, a municipal diet policy was produced, which all political parties supported, and was implemented in all municipal kitchens (Södertälje Municipality, 2024 a). In 2012 the municipality established a program to increase the availability of locally grown produce. In 2015, Matlust was initiated, which was a European Regional Development Fund project with the aim to strengthen growth and sustainable development in the Stockholm region, helping Södertälje to become a nexus for knowledge about sustainable food systems (ibid). With over two decades of work building a base for sustainable food systems planning, Södertälje municipality released a food supply strategy in 2022 (Södertälje municipality, 2022).

The food supply strategy was to have the purpose of highlighting the importance of the food supply as of crucial interest to the public. The goal of the strategy is to "safeguard a sufficient food supply for Södertälje municipality's growing population, ensuring safe, healthy, and sustainably produced food in adequate amounts, now and in the future" (Södertälje municipality, 2022, pg. 6). The target groups of the strategy are municipal employees, private stakeholders, and non-profit agencies, and it is supposed to be used as guidance for planning by these actors (Södertälje municipality, 2022). The strategy aims to ensure sustainable local food production, preparations for the future and changing climates, as well as the increase of population expected for the municipality through two perspectives: sustainability in peace time, and preparedness for a crisis (ibid).

To fulfil the goals of the strategy, the document has provided three "areas of action" that cover urban planning and management, business and municipal operational activities, and crisis preparedness. Each of these areas of action, displayed in figure 3 below, affect different working sections of the municipality, and will be implemented as the departments see fit into the planning documents within the municipality.
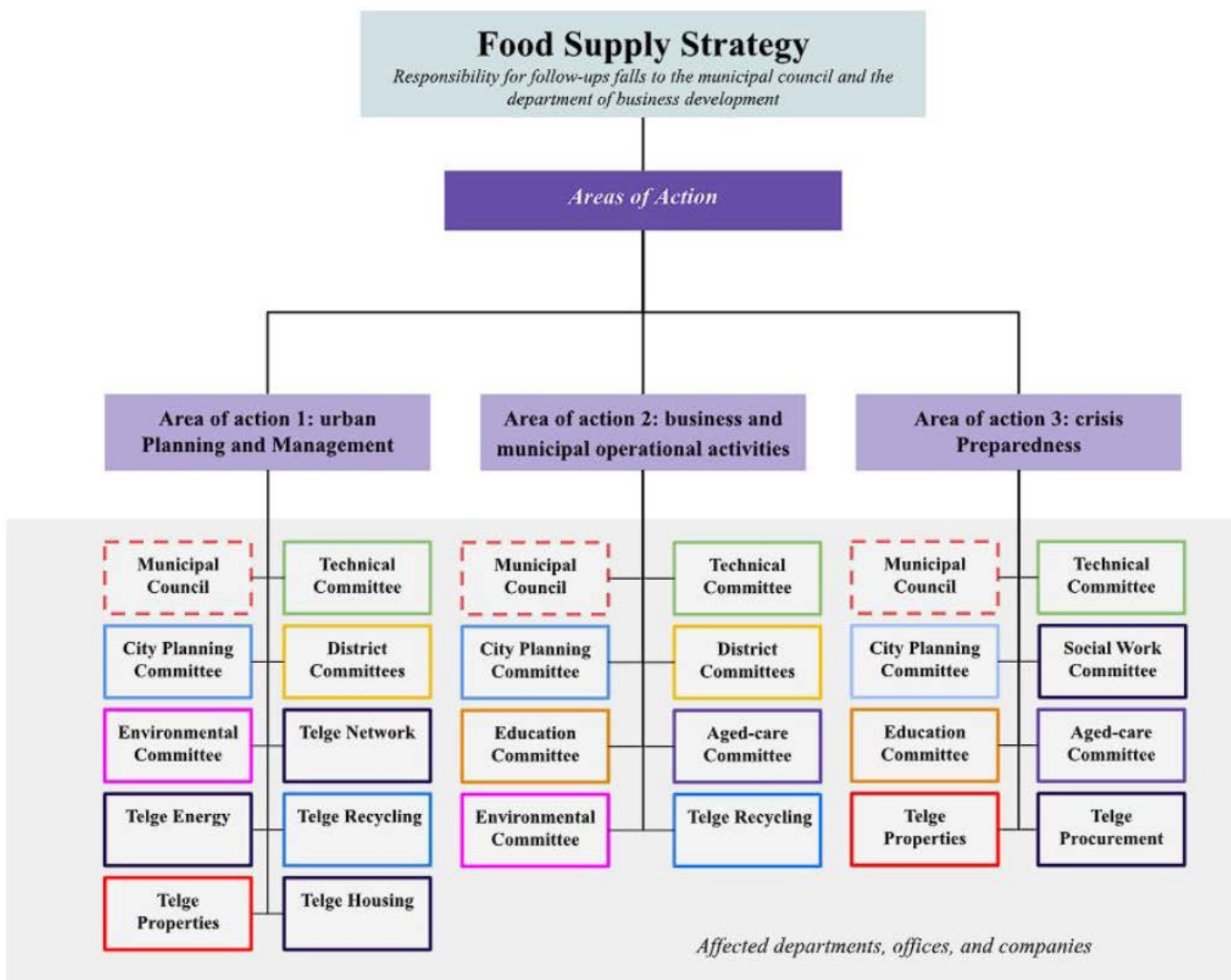
Figure 3: Policy network in and relating to Södertälje's Food Supply Strategy, including actors involved in the strategy (Based on information from: Södertälje municipality, 2022)

3.1 Problems Identified by the Food Supply Strategy Within the Food System

Södertälje's food system faces issues, many of which are outlined in the food supply strategy. The strategy mentions that more food can be produced in the municipality; highlighting the need for increased food production in the Stockholm region that is home to a quarter of Sweden's population, but only three percent of the country's agricultural land (Södertälje Municipality, 2022, pg. 9). According to the strategy, if the Stockholm region is to be supplied with food, the whole of eastern mid-Sweden and the island of Gotland will have to be involved in the production (ibid). To provide food for the Stockholm region and eastern mid-Sweden's populations, the strategy calls for more diversity in the food system, and that consumers need to change their dietary habits (ibid).

Ensuring food security is a vital theme to the strategy which concurrently identifies building resilience to ensure that Södertälje municipality remains fed. The idea of redundancy is elaborated on, explaining that overlapping functions are crucial to withstanding disturbances (Södertälje Municipality, 2022). For example, the strategy states that more food should be locally produced, and that agriculture should be adapted to climate change (ibid). The need to adapt the system to disturbances is also mentioned, perpetuating that food should be available no matter the situation (ibid).

 Import dependency is another issue that the strategy highlights as problematic in creating redundancy within Södertälje's food system. Dependency on effective globalised food supply systems has increased in the past 30 years, so much so that there has been little development of mid-sized, and local food system structures (Södertälje Municipality, 2022, pg. 10). Similarly, there is a dependence on the import of other crucial resources such as fertilisers (ibid). "Therefore, local production of materials and energy, as well as the production of animal feed and plant nutrients from waste and residual streams, also play a crucial role in securing our food supply" (ibid). Increasing the amount of mid-sized processing facilities within the municipality was also highlighted to increase redundancy in the case of a disturbance within the municipality, as many of the larger and smaller sized facilities cannot provide a viable production of food for the municipality in such cases (ibid).

4. Methodology

4.1 Semi-structured Interviews

Interviews were chosen as a method to be able to further grasp how implementation has progressed in the municipality. According to McCallum et al. (2019, pg. 149) in their book titled, "Doing Research in Urban and Regional Planning: Lessons in Practical Methods" it is suggested that interviews are useful in gathering information from people with a specific knowledge of the topic and can give unique insights into planning systems. In this case, the interviewees were chosen due to their expertise and proximity to the planning process in Södertälje municipality and could give important insights as to how the implementation of the food supply strategy is progressing, as well as what actions the municipality can take to aid in the implementation. Therefore, it is imperative to gather information from them to ensure that the strategy is implemented, and the food supply is secured.

Semi-structured interviews were determined as the best way to gather the information needed. Semi-structured interviews are based on a predetermined set of questions (McCallum et al., 2019, pg. 152), yet allow for a degree of freedom, allowing the interview to take its own course and gain information that was perhaps not anticipated (ibid). Due to the explorative nature of this thesis, semi-structured interviews provide leeway to the interviewees to add information that was perhaps not anticipated in the predetermined questions, allowing for a more in-depth understanding of the implementation process in Södertälje municipality.

Semi-structured interviews were conducted with seven municipal officials at Södertälje municipality. To be able to understand how the plan was being implemented within the municipality, employees from three different departments were interviewed. The interviewees were chosen after a discussion with the author's supervisor at the municipality, who deemed the interviewees as integral to planning of the food supply. The interviewees were from the city planning office, the education office, and the municipal board office (Swe. stadsbyggnadskontoret (Sbk), utbildningskontoret (Ubk), och kommunstyrelsekontoret (Ksk)). The interviews were conducted over zoom or in person where they were recorded with the acknowledgment of the interviewee. One interview was conducted through written correspondence. Each interviewee was asked questions from a list, found in Appendix 1. The recorded interviews were then transcribed to enable a thematic analysis of the data collected.

4.1.1 Thematic Analysis of the Interviews

A thematic analysis of the interview transcripts was conducted to be able to ascertain common themes, topics, and ideas that were brought up by the municipal officials. Following a guide to thematic analysis (Caulfield, 2023), the transcripts were first read to familiarise the contents of the data. Then, coding of the data was conducted where themes initially presented themselves. This was done using highlighters. Once the coding was completed, themes were identified that were present in the texts. Then the themes were reviewed as to their relevance to the theoretical framework and the literature review.

4.1.2 Interview Ethics

Before each of the interviews, a consent form was sent to each of the interviewees. Outlined in this form was the information regarding how the responses of the interviewees would be used in this thesis. Contact information to the author and the supervisors of this report were given, as well as information about the publishing of the thesis. A copy of the consent form can be found in Appendix 2.

Table 1. Interviewees:

Interviewee:	Date of Interview:
Sbk 1	14/03/2024
Ubk	18/03/2024
Ksk 1	02/04/2024
Sbk 2	12/04/2024
Ksk 2	17/04/2024
Sbk 3	18/04/2024
Ksk 3	25/04/2024

4.2 Literature Review

Literature reviews are essential to be able to identify what has been written on a topic and identifies gaps in knowledge of the chosen topic (Paré & Kitsiou, 2016). The literature review was conducted through various search engines, the primary ones being Google Scholar, Scopus, and the KTH search engine. For this topic, the terms "strategic food planning governance," "implementation of food strategies," "implementation of food policy," "barriers to the implementation of food policy," and "difficulties implementing resilience in food planning" were used, among others that were closely related. Articles were chosen due to their proximity to the topics, as well as how many people had cited these papers. The literature that was chosen was then thematically analysed, similarly to how the interviews were analysed, using the same method described above to sort themes and identify barriers and catalysts that appear throughout the literature.

To help answer research question two regarding barriers and catalysts of the implementation of Södertälje's food supply strategy, a literature review was conducted. In the theoretical framework, food planning was discussed. To make this thesis more nuanced, the barriers and catalysts of implementing food policies were gathered from the literature. Here Mansfield & Mendes' paper assessing three cities from the global north and how food policy was implemented was assessed, as well as other publications such as Dawkins et al. (2023) who assess the constraining and enabling factors of Swedish municipal food policy implementation, as well as Pillora et al. (2009) who assess common barriers and catalysts to implementation of local government initiatives in Australia. As well as many other sources that explore what barriers and catalysts exist in food policy implementation, something that will help to understand how the governance of food systems can be bettered. The reasons for choosing the primary papers in the literature review are listed in table 2 below. Not all the papers were explained, just the ones that are more crucial to the argumentation of the thesis.

Table 2. Overview of primary sources used and their relevance

Source	Topic	Relevance
Mansfield & Mendes (2012)	Exploration of municipal food strategies in three cases in the global North.	The study explores cities with singular comprehensive food strategies and examines the factors that can help local governments develop and implement food strategies, from the cases of three cities in the global north.
Mendes (2008)	This study explores the implementation of environmental and social policies in cities.	As a precursor to the article above, Mendes assesses the implementation of environmental and social policies in Vancouver. This was deemed important as it was part of the framework for their later text with Mansfield and discussed some vital keys to implementation of policies.
Dawkins et al., (2023)	An assessment of the abilities of Swedish municipalities and their work with sustainable consumption.	This publication was chosen due to its proximity to Swedish planning systems. There were few texts that specifically worked with Swedish food supply strategies, as very few municipalities have these strategies. Thus, as sustainable consumption is an important part of creating sustainable food systems, this article was chosen. It highlighted barriers and catalysts within Swedish municipalities and was crucial in highlighting certain catalysts for implementation within the Swedish system.
Pillora et al. (2009)	Explores barriers and catalysts within municipal planning.	This report focuses on common barriers and catalyst for municipalities when working with sustainability initiatives. Although not directly related to food, common themes were found with other papers related to food, and sustainability is a large part of the food sector, so it was deemed as relevant to this thesis.
Fernqvist & Jönsson (2023)	Recommendations for planning authorities in Sweden for food planning.	This report was deemed as important to the literature as it highlights two researcher's perspectives on food planning, and how it can be done in Sweden. They produced a list of 8 recommendations, which helped to guide the themes of the literature review, as they interlinked with many of the other themes in the literature.

4.3 Limitations of Research Methods

The limitations of this study include that it focuses on one municipality in Sweden. Although allowing for depth by only focusing on one case, other municipalities may face different issues that were not covered by Södertälje municipality. Similarly, this case focuses on a municipality in the Global North. Issues faced by countries in the Global South regarding food supply challenges may be very different, and the stressors of climate change may be more profound.

Furthermore, to increase the nuance of this thesis, it would have been interesting to interview employees at the municipal companies, as well as other employees within the municipality to grasp a wider view of the implementation. Due to time constraints this was not possible. However, it would have been particularly interesting to gain insights on questions such as water usage, or electricity supply. In future studies it would be valuable to understand these aspects as well, to fully grasp the implementation of the food supply strategy.

It is noted that the data collected from the interviews is subjective, and supplied from people who have motives and municipal responsibilities. Perhaps they responded with answers that would protect the concerns of the municipality, or their department within the municipality. Perhaps other people in the same department had different opinions to the person interviewed. Interviews are also captured at a specific moment in time, and the opinions of the interviewees may have changed or developed after the interview. Also, due to the nature of semi-structured interviews, perhaps some topics were favoured over others, and given more time during the interview. This could mean that other valuable perspectives were missed, and not included in the results. However, this was mitigated as far as possible by sticking to the pre-prepared questions as much as possible, ensuring each interviewee was given the opportunity to respond to each theme covered in the questions.

5. Results

5.1 Literature Study: Barriers and Catalysts to Strategic Plan Implementation

The factors influencing the successful implementation of food supply policy can be guided by previously studied barriers and catalysts to implementation. Through the literature review, several key factors were identified as barriers and catalysts to the implementation of sustainable food strategies. They are elaborated on below.

5.1.1 Communication and Collaboration

A primary challenge faced by municipalities studied by Mansfield & Mendes (2012) when creating food policy is through the intricate network thinking required to solve the issues presented by the food system and embedding this thinking within the municipal government system. Mansfield and Mendes (2012) posit that the ability of the local government or municipality to implement a food strategy should consider both structural and procedural factors. The structural factors refer to the "levels of commitment and coordination" within a municipality reflected in the "formal food policy mandate, staffing support, and [the] integration of food policy in other related municipal frameworks" (ibid, pg. 45). The procedural factors refer to the collaboration with stakeholders both public and private that are involved in the processes of the food system and can also revolve around the organisation of creating cooperative goals to achieve within the food strategy (ibid). This is corroborated in a text by Rincon et al. (2021) as a factor relating to the implementation of sustainability strategies was identified as the fragmentation of the organisational structure within studied municipal workings, and by decreasing this fragmentation an air of collaboration and communication could be created (ibid).

For example, communication was stipulated as a crucial aspect to providing sustainable meals, a vital part of creating a sustainable food system in Sweden. The procurement of sustainable food is a tool in which the municipality studied by Dawkins et al. (2023) can utilise their purchasing power to create change, yet without proper communication, procurement can become difficult. In their study, communication was seen as a hindrance at many different levels: between municipalities and political agendas, between municipalities and food supply actors, and even within the departments of the studied municipality (ibid). An example used was the political vision of organic food in schools, yet a lack of communication between the studied municipality and the politicians resulted in a lack of funding which made the task difficult to implement (ibid). It was highlighted that certain rules contributed to limiting the availability of sustainable options, rather than enabling them, and that the current systems in place to procure food perhaps do not fully accommodate for the shift required to procure sustainable options (ibid). Lack of communication in a collaborative sense can thus hinder the progression of sustainable food policy, creating barriers to the implementation of municipal efforts.

Collaboration with the stakeholders to the system can also be seen as a catalyst to implementation. Dawkins et al. (2023) showed that a vital component to the implementation of policy regarding sustainable food consumption was having a strong collaborative relationship with the studied municipality's contractors and staff that prepare meals (ibid). This allowed for ample conversations about the increase of sustainable food in meals available, and how to effectively decrease food waste (ibid).

5.1.2 Municipal Capacity

Another barrier is one of the inner workings and capabilities of the municipality itself.

> *"Not all local governments possess the required regulatory tools, institutional experience, and organisational culture to actively collaborate across city departments to address food system (or other sustainability) issues" (Mansfield & Mendes, 2012, pg. 54).*

The situation of navigating food policies is also made more complex by operating a coordinated approach across the studied municipality, which is required for the implementation of food strategies (ibid). This wide range of responsibilities can often lead to municipal employees feeling as though they do not have enough knowledge to tackle a certain issue (Pillora et al., 2009). However, though these systems can often be seen as a barrier, "good systems" within the studied municipality to tackle new issues can "enable sustainability systems" (ibid, pg. 11). For example, internal education systems and crossmunicipal teams can prove that municipal stakeholder networks can have a positive impact on the success of municipal policy and can create greater efficiencies (ibid).

5.1.3 Political Influences

Another barrier is the implications of the electoral cycle which can create shifts in the priorities of the local government, and the funding available for food strategies and projects (Mansfield & Mendes, 2012). This is acutely related to food strategies due to the number of different stakeholders involved in creating more sustainable food systems, and the large number of processes that need to occur to create change (Mansfield & Mendes, 2012). Other issues such as public health may be deemed more important (Pillora et al., 2009), and waning support from the public for environmental and sustainability issues could impede the work of local governments (ibid). However, Dawkins et al. (2023) mentioned that having "champions" within their studied municipalities that advocated for sustainable food policy and the unification of the municipality as one of the driving factors to change, especially when the municipality lacks political support for sustainability work.

5.1.4 Fundamental Roadblocks

Furthermore, another barrier is one of governance, primarily caused by the bureaucracy of planning systems, and the roles, responsibilities, and jurisdiction of different governing bodies (Mansfield & Mendes, 2012). Coordination and collaboration between different levels of the government and agencies often "complicated work at the local level unnecessarily and often hindered progress" (Pillora et al., 2009, pg. 16). Sometimes, food systems transcend the governing boundaries of the local authority, and require action from other governing systems, such as perhaps changing national laws and regulations. The power to create change is thus out of the hands of the municipality, which can draw out the process of the implementation of the food strategy (Mansfield & Mendes, 2012).

The government can also be a useful catalyst to change. Dawkins et al. (2023) elaborate that government frameworks for reducing food waste in the municipalities they studied proved to be an enabling force for increased sustainability. This is corroborated by Pillora et al. (2009, pg. 12) who state that legislation can provide a guide to municipalities and provide a "clear objective and more certainty" for local governments. For instance, the use of national sugar taxes has been found to be an effective measure in the U.K. and the Netherlands, as the national regulations provide guidelines for the municipality (Sibbing et al., 2019), who can then foster change within their food systems. Laws and regulations such as the sugar tax arguably provide a legal framework to create certainty in the planning process.

5.1.5 Lack of Defined Responsibilities within the Municipality

Similarly, another barrier observed was the need for clear planning regarding responsibilities. "A common challenge can be a lack of clearly defined roles and expectations of various partners" (Mansfield & Mendes, 2012, pg. 55). To coordinate across the municipality, with other stakeholders, and with citizen organisations, clearly outlined goals and responsibilities are necessary for a successful implementation. For local governments it is important to understand what the governing body can regulate directly, and to take the leadership initiatives to incorporate the key interests of stakeholders (ibid). Food systems could address the factors of social injustice, environmental issues, human health, and economic growth (ibid). Yet, the capacity of governing bodies to orchestrate a strategy that stretches across stakeholders, departments, sectors, and ministries is questionable (ibid). The "unprecedented complexity" of urban systems, combined with the plethora of issues that local governments are expected to solve, calls into question the ability of municipalities to "respond with the appropriate resources and expertise in the long term" (Mendes, 2008, pg. 952). Thus, clearly defined roles are needed to help navigate the intricacy of food system planning within the municipality.

5.1.6 Policy Fragmentation

One potential reason for the lack of defined responsibilities is the fragmentation of the policy surrounding food systems, as well as a lack of defined goals within those policies. Without a proper roadmap to a sustainable or resilient food system, how can municipal employees be expected to navigate the complicated realm of the food system? Coherent policy is essential for understanding what is required of the municipality when building sustainable food systems. Oftentimes, the food system is governed by an array of disconnected policies (Andrews et al., 2023). Unifying strategies and policies are essential to drive change within the food system (Grassian, 2019). By aligning policy towards a common goal of resilience or sustainability, municipalities can effectively address the issues of food insecurity, and environmental degradation, as well as public health and creating a competitive food system.

5.1.7 Changing Consumption Patterns

There are limits to the change a municipality can influence. If the public does not change their consumption patterns, sustainability within food systems will be hard to achieve. Consumer preferences are crucial to creating sustainable food systems (Prasanna et al., 2024). If the public does not support the shift, change can be hard to implement. The municipality can use tools to help to drive change within their jurisdiction. Dawkins et al. (2023) described the importance of nudging the public to make more sustainable choices when it comes to sustainably consuming food. One way in which to achieve this is through reaching the general population through children, as children's meals are provided by the municipalities in Swedish schools (Dawkins et al., 2023). Through moving away from the meat-norm in public meal-services in schools, and towards more sustainable options, children will not only form habits that they could take with them to adulthood, but also influence those around them including their parents (ibid). The municipality can try to implement a sustainable and resilient food system, yet without the support and enthusiasm of the citizens, it will be hard to create real change.

5.2 Interviews

5.2.1 Progress of the Implementation of the Food Supply Strategy

Although the interviewees were from different departments, the consensus as to how the municipality is progressing in the implementation is: it depends. Certain areas of action and partial strategies have been implemented to a higher degree than others.

> *"From a consumption point of view, meaning cooking, serving, and finding good suppliers- it is going very well…However, we have not been able to get the city planning office into motion [regarding the strategy], and they have a large responsibility for the planning of the city- from infrastructure and land use, to water and energy" (Ksk 1, 2024).*

While the implementation has been notable in certain areas of the plan, challenges persist within other areas. The following paragraphs will explore the extent of the implementation of the food supply plan within the municipality.

5.2.1.1 City Planning and Maintenance: Land-use, litigation and long-term sustainability

Despite work progressing "slowly" (Sbk 2, 2024; Sbk 3, 2024), especially within the city planning office, work with the food supply strategy has commenced. One of the focuses of the city planning and maintenance area of action was integrating the food supply strategy into the new comprehensive plan through promoting the protection of agricultural land and discerning strategic spots, crucial for the food supply chain (Södertälje Municipality, 2022, pg 32). This part of the area of action is "one of the most important" aspects in terms of agricultural land (Sbk 3, 2024). The city planning office has worked to "include the food supply strategy in the comprehensive plan so that it becomes a clearly formulated part of the long-term planning. Above all, to highlight the protection of agricultural land, preparedness, 31 and food supply" (Sbk 1, 2024). However, despite being straightforward in incorporating land protection, questions about waste, and municipal food supply, it has been difficult to point out the strategic spots within the food supply, i.e. all the areas that are not included in agricultural land (ibid). The plans are important because they provide a base to support the municipality's sustainability efforts, especially within the protection of land when conflicts of interest arise (Sbk 3, 2024).

Promoting sustainable practice within agricultural systems to create long term resilience within the food supply system is a critical aspect of this area of action. However, implementation is progressing slowly. For example, in working with the connection between ecosystem services and farmland, little progress has been made (Sbk 2, 2024). Furthermore, the utilisation of land not being used for farming is going slowly for many reasons, a primary reason being the struggle between public and private use of land, and the fact that the municipality can only affect how farming is practised on the land they own (ibid). A primary issue here is authority (Swe. rådighet) (Sbk 3 2024). "We do not have authority over [private property] … we do have authority over influence, we can make it attractive to [think about land-use]" (ibid).

The work that seems to be getting started within the city planning and maintenance part of the strategy is important, however this progress is perhaps due to synergies with other strategies.

> *"If we consider city planning, how we use land… water and energy issues…there is a great deal that is happening in Södertälje municipality, however it is not necessarily related to food supply questions" (Ksk 1, 2024).*

For example, the strategy itself has strong relations to the farming strategy1 (Swe. odlingsstrategi), which "gives the groundwork to build the food supply strategy on" (Södertälje municipality, 2022, pg. 19), and many of the goals overlap with the farming strategy. Much of the implementation has occurred due to "the fact that we have done a lot of work with the farming strategy" (Sbk 3, 2024). This base, created by the legislative framework in Södertälje municipality, seems to be an effective tool in ensuring that even if work has yet to commence on certain strategies, that the municipality is still moving forward in creating a sustainable and resilient food system.

> *"You must have a base… there needs to be continuity with the work. Thanks to the base, we have been able to scale up work on the food side of things" (Ksk 2, 2024).*

Nevertheless, it is important that the municipality starts working specifically with the city planning aspect of this policy, as there are many nuances that will perhaps fall between the cracks if they are not specifically covered.

5.2.1.2 Municipal activities: operationalizing sustainability

The idea of "politics you can eat" is one that promotes the forwarding of a sustainability agenda through the municipality's influence (Sbk 3, 2024). Södertälje municipality has worked on creating a sustainable food system for over 20 years, and one of their main tools in creating sustainability in the system has been through the municipality's food service through the dietary unit (Ksk 1, 2024). A large part of the dietary unit's commitments to area of action two regard sharpening procurement practices, particularly with strategies to achieve a goal of 10% of the food provided in municipal operations being sourced locally, currently only around 1% is bought locally (Ubk, 2024). Furthermore, as stated in the strategy, work with promoting the municipal food service as a tool for sustainability continues (ibid). The work being done to promote sustainability is connected to the increased procurement of local food, and the use of food that is in season (ibid). An initiative from partial strategy eight to increase the amount of game meat has been undertaken, and new suppliers are being secured (ibid). Moreover, pilot projects regarding reduced food waste are underway, working towards partial strategy nine (ibid). Although not all activities were mentioned, the sentiment "I feel as though we are on the right track" (ibid) pervades the work being implemented by the dietary unit.

However, some aspects of the implementation are going slower due to municipal bureaucracy and contractional obligations. The municipality's authority is a factor in reaching the goal of 30% of agricultural land being ecologically certified by 2030, a partial strategy in area of responsibility two (Sbk 2, 2024). Due to the municipality not having the authority to order tenant farmers to grow ecological food, the responsibility to influence ecological farming falls to the market. Södertälje municipality was close to reaching their goal of 30% a couple of years ago when they reached 27% (ibid). However, recent statistics show that the percentage of organic agriculture in the municipality has reduced to 19% (ibid). Nevertheless, this will increase when tenancies are renewed, and new contracts can be signed (ibid). The processes affecting the implementation in many of these aspects are limited by legal and contractional obligations, making the process slower since the municipality needs to navigate tenancy contract turnover.

5.2.1.3 Crisis Preparedness

The dietary unit is crucial to area of action three: crisis preparedness. Discussions have commenced in building collaboration (Ubk, 2024) within the municipality to ease communication during a potential crisis. When it comes to preparedness, the dietary unit is "fully engaged… at the moment" (ibid). Later this year, a "preparedness week" (ibid) will be held to involve key stakeholders and move the question of preparedness forward within the municipality. Furthermore, the dietary unit is working with building up a three-month food supply inventory within the municipal operations (ibid). Collaboration within the municipality is important in a crisis, and it is an aspect of the strategy that is currently undergoing discussion (ibid). "I think we are moving in the right direction" (ibid), at least regarding what the dietary unit can achieve.

However, the dietary unit does not have the sole responsibility for creating crisis preparedness within Södertälje municipality's food system. Work in the other parts of the crisis preparedness, especially regarding civil preparedness, is generally going slowly due to a lack of defined responsibilities (Ksk 3, 2024). From some perspectives, it is hard to understand exactly where to start with certain strategies (Ksk 2, 2024), especially when the municipality's responsibilities are ill-defined by national leadership (Ksk 3, 2024). Simultaneously, municipalities are expected to start crisis preparedness without specific instructions, which can be difficult to navigate due to the complexity of crisis planning (ibid). It was succinctly stated that to work with food preparedness and civil preparedness, the municipality needs provide more clarification.

> *"Clarify the needs- and the level of crisis that will be faced. Then, investigate and take inventory; to be able to face this kind of crisis- what needs to be in place? What are critical functions? Clarify that. And you have the answer. This is where we should start"* (ibid).

It is impossible to plan for all scenarios. Therefore, instructions on exactly what needs to be planned, and the responsibilities of the municipality in a crisis, would benefit preparedness within the municipality. Furthermore, the question of whether food supply preparedness should be involved with crisis preparedness arose.

> *"Safety and crisis preparedness- there are questions there about where the responsibility lies in the future. That is because of the increased focus on the topic- 'will it become part of a wider crisis preparedness strategy?' is a question. There are arguments for and against that"* (Sbk 2, 2024).

"It is part of a rather complex chain where we have not figured out part A in the chain, and the food strategy is definitely not point A- it is not where you start" (Ksk 3, 2024).

5.2.2 Barriers and Catalysts to Implementation

5.2.2.1   5.2.2.1 Communication and Leadership

From the interviews, a common theme presented itself: lack of communication of the strategy. Whether it was a limited amount of information about the strategy, or minimal communication about what was to be done with the strategy, it seemed as though the strategy had fallen through the cracks within the municipality. If municipal workers do not know about the strategy, how can it be effectively implemented? One interviewee responded that,

> *"I believe I am the only person in my group that has read it… and I would go so far as to believe that few have read it within the city planning office" (Sbk 2, 2024).*

Furthermore, the process for how the strategy was implemented into policy was changed throughout the strategy's writing process. Instead of having an action plan, the food supply 34 strategy was to be distributed and written into the individual department's operational plans (Ksk 1, 2024). This left the document up to be implemented by the individual departments, which could then decide which of the partial goals they were responsible for, which means that aspects perhaps do not get picked up (Sbk 3, 2024). The original process saw the production of a more detailed strategy that had more specifically communicated activities (Sbk 3, 2024). "Departments can react more to an activity than they can a strategy" (Sbk 3, 2024). Furthermore, a communication plan has not been put into action, "we were going to make a communication plan, but it has fallen through the cracks, no one has really taken responsibility" (Ksk 1, 2024). A communication plan would communicate that the individual departments themselves have the responsibility to develop the activities required to fulfil the strategy, yet it has not been produced (ibid). Corroborating the critique of the change in process, one interviewee mentioned that:

> *"It is not working because it does not work with any strategy… we don't have time to read strategies and workshop what we think it means for our department. If all departments did that, we would spend a lot of our time workshopping strategies- and it is not done" (Sbk 2, 2024).*

However, this sentiment was not shared by everyone. When asked if they thought the lack of an action plan was a reason for the lack of implementation, one respondent replied, "I doubt if an action plan would have helped. There are many action plans that no one works actively with" (Sbk 1, 2024). Another responded, "it is not certain that it is just because you do not have an action plan that maybe it is more difficult [to follow-up]. I think that sometimes it can also amount to governing documents," "it is a jungle," "just the city planning office has around 40-50 governing documents that they are responsible for" (Ksk 2, 2024). Effective leadership is imperative to navigating a jungle of strategy documents, acting as a catalyst to the implementation of strategies in the long term. "It is a question of organisation, of leadership, of direction" (Ksk 2, 2024). "It is very much a management issue, that the managers need to take responsibility for capturing what is stated, regardless of whether it is stated in the operational plan or in an action plan" (Sbk 1, 2024). Without proper leadership, both within the municipality and nationally, it has become too difficult to define goals and understand how implementation should occur.

> *"It is too complex; it is too big. In the end, they just do not know where to start" (Ksk 3, 2024).*

Not only is it a question of management taking charge, but implementation would be aided if specific people were put in charge of following up on the strategy to ensure work is being done (Sbk 2, 2024; Sbk 3, 2024).

Additionally, the interviews revealed the importance of having 'champion' members to staff (Swe. eldsjälar) that take responsibility for key questions within the strategies act as a catalyst for change within the municipality. The head of the dietary unit has been frequently 35 identified as an enthusiast concerning the food issues (Ksk 1, 2024; Sbk 3, 2024), potentially playing a significant role in the implementation of the partial goals associated with the dietary unit. Another champion that was identified was the farming strategist within the municipality, who is working to achieve the goals in the farming and food supply strategies (Sbk 3, 2024).

Furthermore, follow-ups were identified as a catalyst to ensure that implementation is progressing.

> *"Follow-ups are also a good thing, not only for the sake of following up on a strategy, but they remind everyone that they should be working on the strategy" (Sbk 2, 2024).*

Furthermore, "if you don't have a follow-up, you do not really know why things are not being implemented" (Ksk 2, 2024). Moreover, when the follow-up systems were more digitalised, work can be cut down from three months to just a couple of weeks (ibid). Thus, by ensuring that follow-ups occur, and that they are effective, implementation would be benefitted.

5.2.2.2 Internal alignment

Internal alignment, or lack thereof, was regarded as a barrier to implementation of the strategy in several respects. Before the strategy had been published, many municipal employees did not understand how food supply related to certain aspects of the municipality's responsibilities.

> *"There was a lot of questioning, "why should we keep doing this in a municipality?" then it was difficult to get an understanding for this being the municipality's task; to care about how the food supply was planned and that it is so extensive that you have to look at the municipality's planning monopoly, water management, energy issues - people thought it was too far away from food issues" (Ksk 1, 2024).*

Even after the strategy had been published, there remains a lack of understanding as to how important food supply planning is. "I think that it is still about internal alignment because I would say still, despite the situation we are in, I perceive it as being seen as a marginal issue, that it is not our main task to work with food supply… it needs to become a question that everyone understands is very important" (Sbk 2, 2024). Thus, lack of internal alignment regarding how important food supply planning is, is seen as a barrier by some of the interviewees.

Coupled with the lack of internal alignment regarding the importance of food supply planning, is the lack of resources, time, and knowledge to tackle the problems within the strategy. Implementation can be hindered by "a shortage of resources" and even a "lack of competence" (Ksk 2, 2024). Furthermore, sometimes understanding strategies can be difficult if "there is not enough knowledge around issues… We understand that it is important, but how can we choose to prioritise this when we have so much else to do?" (ibid). Consequently, time and knowledge become barriers in the implementation, especially in the wake of little management and direction within the implementation of the strategy.

5.2.2.3 Coordination and Food System Complexity

There were many co-ordinational barriers that were identified with the implementation of the strategy. The first of these is that despite creating sustainable menus within the municipal food services, some of the consumers are not on board with the changes.

> *"The food we serve is not what they are used to in their homes. If you're not used to eating it, then it will be a little [different]" (Ubk, 2024).*

Another example is when the municipality tried to introduce circularly grown insect protein that many of the consumers thought was "disgusting" (ibid). Therefore, even if the municipality tries to instigate change, they cannot force people to change their habits which could be a barrier to the success of creating more sustainable food systems.

Another coordination barrier is the municipality's jurisdictional authority to instigate transformative measures. An example of this is an initiative that 10% of the total food budget will be supplied from local producers as part of ensuring the food supply linked to civil preparedness within the next four years (Ubk, 2024). An example of this due to the stringent requirements of the Swedish Public Procurement Act (LOU), legal frameworks may hinder the initiatives for procuring local food (ibid). These frameworks can act as a barrier in the municipality's ability to source local food.

In the context of Södertälje municipality, the interplay between political dynamics and municipal governance serves as a catalyst for sustainability initiatives within the food system. Historically, politics played a role in initiating work within the food system in Södertälje, building the framework to be able to create a food supply plan (Sbk 3, 2024). The question of the food system was initially spearheaded by Södertälje's Green party (ibid). However, over the years the municipality has worked on mainstreaming food through inviting members of all political parties to participate in work with the food system (ibid), making it an essential question for the municipality.

Nevertheless, politics still plays a role in approving the budgets that are put forward by the department heads (Sbk 2, 2024), and approving follow-ups of the municipality's work (Ksk 2, 2024). In circumstances where goals are not fulfilled, it is within the purview of politicians to ensure that these statements do not get approved. Alternatively, addressing unmet goals should, through actions and inquiry, be a priority to further the municipality's objectives. Local politicians have the power to assign budgets and approve the work of the municipality, this can either be a catalyst or barrier to implementation of strategies. It was made evident that politics played a vital role in building the framework of Södertälje's food system, yet it is imperative that these questions continue to be followed up in a manner that promotes development and progress.

Other coordination hurdles stem from the intricate nature and complexity of planning within the food supply system. An example of this comes from the complexity required to incorporate local food into the municipal operating systems. For instance, local producers and the way the public meals currently work are "not compatible" (Ksk 1, 2024). Public meals require deliveries of edible food (washed etc.) when they need it, making demands that local food producers may not be able to meet (ibid), especially considering the cost of production (Sbk 2, 2024). Logistically, local food production requires extensive planning, the farmers need to know what they need to sow, when it needs to be ready, and how much of it they will need to provide (Sbk 2, 2024). Even then, they may not be able to produce an adequate amount of food. A possible catalyst to helping local farmers could be to be "the spider in the web," organising and connecting farmers, aiding in collaboration (ibid). However, "[local procurement] requires a completely different logistical framework" (Ubk, 2024). This is just one example. Creating resilience within a food system requires coordination on a different level to what has potentially been previously, something that could be difficult to navigate, especially when different stakeholders, and

their livelihoods, are involved.

Additionally, the complexity of the system does not solely impact the coordination of Södertälje's food system, there are other aspects to planning and decision making that are made more difficult by the complexity of creating sustainable, resilient food systems. For example, Södertälje municipality has a large amount of cattle rearing within the municipality (Ubk, 2024).

> *"They eat grass- fodder that we cannot consume. Raising cattle is better from an animal rights perspective [compared to chicken] … they contribute to the health of our soils. However, we have energy and climate goals, health recommendations… Yet, [cattle] is a fantastic preparedness option for us at a local level. Furthermore, our municipality has wolves… they do not attack cattle" (Ubk, 2024).*

What is highlighted in the example above is that cattle provide a viable option for the municipality as they are a locally produced food source that could provide a source of food within a crisis, as they would be more readily available due to their proximity. However, the conundrum posed is that cattle are a contested topic, since they create conflicts with the other goals within the municipality. This illuminates the complexity of planning when considering these types of issues, as there are many factors that need to be weighed against each other. These conflicts were succinctly put as increasing difficulty in implementation because "there are many different interests that are weighed against each other" in cases of planning (Sbk 1, 2024). Many different components are involved especially when it comes to preparedness, perhaps making implementation difficult as many do not know where to start (Ksk 2, 2024). 38

Complexity has created an inertness regarding steps to take towards implementation, particularly regarding crisis preparedness and civil defence.

> *"It is like being lost in a giant forest- there are trees everywhere… in the end you just do not know where to start" (Ksk 3, 2024).*

> *"You cannot just say, 'now we are working with the food supply.' How does the food supply relate to everything else? What are the interdependencies between everything" (ibid).*

What are the consequences of just focusing on food without the broader context of other essential provisions such as electricity and water? This prompts the consideration of the system as a whole, a very complicated system that is difficult to navigate. Due to improper leadership, it is impossible to know where to start (ibid). Without knowing what to start with, how can planners know where to begin? Proper instruction needs to come from higher up, specifying what the municipality needs to plan for, and what the responsibilities of the municipality are in different crises (ibid); otherwise, the system seems impossible to navigate.

6. Discussion

This thesis has accumulated knowledge surrounding how Södertälje municipality's food supply strategy is being implemented in various departments within the municipality and identified and analysed key barriers and catalysts to the implementation through experience gathered from interviews, and a literature study. In some cases, the implementation is progressing well, in others it has either yet to begin, or is progressing slowly. This discussion will endeavour to further delve into the analysis of the factors presented to further illuminate how to address the challenges of food system planning in Södertälje municipality.

6.1 Implementation Across Departments

The implementation of the food supply strategy is progressing at different rates depending on the department in the municipality. From the interviews, it was clear that work had commenced on the first area of action regarding city planning and maintenance, yet it was concisely described as "slowly" progressing (Sbk 2, 2024; Sbk 3, 2024). The implementation of this area of action had been substantially aided by the existing policy framework within the municipality, with portions of the implementation assisted by the farming strategy (Sbk 3, 2024). In the literature review, the unification of policies was found to aid in creating change within the food system (Grassian, 2019). Södertälje shows that having a strong base can act as a catalyst in implementation, despite the possibility that the implementation may not have been explicitly for the food supply strategy. The food supply strategy builds on the policy framework of the municipality (Södertälje municipality, 2022), and arguably aids in decreasing the policy fragmentation regarding food supply within the municipality, helping to establish a discourse that promotes unification in the aim of creating a sustainable, resilient food system.

In contrast, area of action two regarding municipal operations is much further along in the implementation process. The work started with a political initiative to use public meals as a tool to create sustainability in 2001 (Agri-Urban, 2018). Since then, the question of food has become increasingly mainstreamed, helping to act as a catalyst for change as there are fewer conflicts between changing political cycles and sustainability work, which can be a possible barrier to implementation (Dawkins et al., 2023). In the interviews, municipal officials say that implementation is "on the right track" (Ubk, 2024). With progress in advancing the municipality's work in using operational tools for sustainability such as increasing sustainability through the public meals, increasing game meat in public meals, and increasing the amount of local food in public meals from around 1% to 10% to name a few (ibid). Although Södertälje has been using this municipal tool for over two decades, it is essential to food planning and creating sustainable food systems (Fernqvist & Jönsson, 2023).

The implementation of the crisis preparedness area of action varies, some departments are full speed ahead, while others do not know where to start. As indicated by the interviews, the dietary unit has been crucial in commencing the implementation of this area of action. Multiple partial goals are on their way to being fulfilled. For example, discussions are being held regarding the goal of food storage within the municipality's operational facilities (Ubk, 40 2024). Organising collaboration between stakeholders is underway (ibid), highlighting a vital aspect in food system planning as a fragmentation of the organisational structure can impede the system's success (Rincon et al., 2021), and in a crisis it is crucial for providing food for the municipality's population (SOU 2024:8).

In contrast, within other areas of the municipality, sentiments pertaining to the complexity of crisis planning were addressed. One respondent likened crisis planning to being lost in the woods (Ksk 3, 2024), while another stated that with certain strategies people do not always know where to start (Ksk

2, 2024). A reason for this could be linked to ill-defined responsibilities, as suggested in the literature (Mansfield & Mendes, 2012). Properly defining to what extent the goals need to be fulfilled and when, are important factors to ensuring proper crisis preparedness (ibid). Communication and coordination are crucial parts in achieving a sustainable food system (Fernqvist & Jönsson, 2023). To ensure that certain partial goals are being implemented, more communication is needed within the municipality, specifically in defining the responsibilities of the different departments.

Accordingly, there is a debate within the municipality concerning who should ultimately have a responsibility over crisis preparedness within the food system. One respondent found it difficult to understand why food should come first, especially before other parts of crisis preparedness have not been developed yet (Ksk 3, 2024). While others suggested that perhaps that this area of action will be engulfed by a larger crisis preparedness strategy (Sbk 3, 2024). Perhaps the food supply strategy was too ahead of its time regarding crisis preparedness, and other strategies need to come first to establish a system for crisis preparedness within the municipality. Or perhaps the dietary unit should spearhead the crisis preparedness within the food system, as it already has, and another strategy could focus on the other logistics of the food supply such as electricity and water? These are complex questions in the planning of a complex system, questions that need to be asked by management within the municipality.

6.2 Barriers and Catalysts

Up until this point in the discussion, several barriers and catalysts have been identified. The catalysts that have already been mentioned are policy integration or Södertälje's "base," and the mainstreaming of Södertälje's food politics. The barriers identified have been ill-defined responsibilities of the municipality from the Swedish government in crisis preparedness questions, a lack of defined responsibilities and communication. However, there are other barriers and catalysts that were identified throughout this thesis that have been pivotal in the implementation of the food supply strategy in Södertälje.

6.2.1 Policy and Follow-ups
The strategy itself presented barriers in how it was communicated to the departments of the municipality. A food policy should be a roadmap for the municipality to navigate the system and should have clearly defined roles and expectations (Mansfield & Mendes, 2012; Fernqvist & Jönsson, 2023). However, due to changes in how the policy was communicated, an over-arching action plan was replaced with the operational plans of the individual departments (Ksk 1, 2024; Sbk 3, 2024). Well-defined, specific actions to implementation 41 were excluded from the policy in lieu of the new system, potentially opening for unclarity to occur. The delegation of tasks did not extend far enough within the policy itself due to these changes. Even though this was due to a change in Södertälje's policy writing system, it resulted in unclarity who was to fulfil the partial goals. The consequences of providing inadequately defined responsibilities are that crucial tasks risk falling through the proverbial cracks.

A related barrier is in the lack of following up that has occurred concerning Södertälje municipality's food supply plan. It is essential to follow up because it allows the municipality to understand what has and has not been accomplished regarding the strategy, what has worked and what has not (Cabannes & Marochichiino, 2018). If the strategy is not properly being followed up, how will the municipality know what needs to be worked on, and what has been accomplished? Fernqvist & Jönsson mention finding new tools to follow-up on policy (2023). This idea was mentioned by an interviewee, who stated that a more digitised process could aid in follow-ups (Ksk 2, 2024). Furthermore, by outlining the progress of the municipality, the responsibilities of stakeholders will be made clearer, something that is both a catalyst to implementation and important to planning a food system (Mansfield & Mendes, 2012). Further communication of the strategy was supposed to be achieved through a communication plan (Ksk 1, 2024). However, the communication plan is not in motion yet, potentially hampering implementation as it is unclear which responsibilities need to be further enforced by management.

6.2.2 Leadership

From the interviews and the literature review, it was evident that both communication and leadership were important in the implementation of the food supply strategy. For example, many of the interviewees identified that having a champion that enthusiastically works for the strategy is a catalyst for implementation, which is corroborated in the literature. Dawkins et al. suggested that a champion is needed within the municipality to drive work within certain initiatives (2023). From the interviews it was evident that this type of informal leadership has played a primary role in the development of sustainable practice in Södertälje municipality's food system, and especially within the dietary unit as the dietary manager has spearheaded many initiatives, including within the food supply strategy (Ksk 1 2024; Sbk 3, 2024). Furthermore, it was mentioned that certain people in the city planning office have been integral in the furthering of the partial goals of the strategy and are a primary reason for the work within those questions at the office (Sbk 3, 2024). This shows that having these socalled champions has been a catalyst within the implementation of Södertälje's food supply strategy, suggesting a correlation between the champion and the implementation of activities. Moreover, it implies that the absence of similar advocacy in other departments may be contributing to a slower pace of implementation.

However, it was mentioned that by not specifically appointing people to further the plan, the municipality was creating a barrier within the implementation (Sbk 2, 2024). From the interviews, it was evident that the champions are usually self-appointed, which raises the question: what can the municipality do if no one steps up? Lack of defined responsibilities 42 were identified as a barrier to the implementation of food policy (Mansfield & Mendes, 2012). Therefore, in the case of the food supply strategy, if Södertälje wants to further aid the implementation of the plan, appointing planners to head the implementation within the different departments would facilitate in outlining responsibilities.

6.2.3 Barriers Caused by Conflicts

The municipality can only influence so much change. Changing consumption patterns were identified as a barrier to creating a sustainable food system (Prasanna et al., 2024; Saviolidis et al., 2020). The success of the goal to achieve 30% ecological land by 2023 (Sbk 2, 2024), and the implementation of sustainable foods within the public meal services (Ubk, 2024), are examples of this. Dawkins et al. suggest nudging as a tool to further influence the public (2023). However, when the reason why a goal is not being met is that the public cannot afford to buy ecological food, for example, how then can the municipality further their sustainability work? One solution to this could be to ensure that the goal for the sustainability work remains clear (Fernqvist & Jönsson, 2023). This allows for an open dialogue regarding the issues of the municipality to be had, and solutions can be found by re-assessing the issue, and adjusting accordingly.

However, there is little that the municipality can do to directly change consumer patterns and as suggested in the literature, their only tools are more indirect (André et al., 2021). This illuminates the larger question of how consumers can be made to make the "right" choices? In this thesis, the tool of the public meal service has been used as an example to show the power the municipality has in changing the minds of the population, especially regarding changing the meat-norm within these meals. This work is arguably pivotal in changing the consumption patterns of the public. Yet, municipalities, and their planning authority, only stretch so far. As highlighted by the example of ecological food, the market plays a large role in furthering sustainability initiatives. In Sweden, 90 percent of food sold is controlled by the oligopoly of ICA, Axfood, and Coop (Axfood, n.d.). Understanding how municipal relations with these stakeholders, and their work with sustainability was not the focal point of this thesis yet would be interesting to understand in future research regarding food systems and sustainability in Sweden, especially since these actors have so much power within the Swedish food system.

Another barrier identified by one of the interviewees was that there are conflicts of interest when planning these systems. An example of this is Södertälje's cattle production. Cattle, and livestock in general, provide food security (Godber & Wall, 2014), which could be important from a local crisis preparedness perspective for Södertälje municipality. However, the consumption of beef is in malalignment with the sustainability and health goals of the municipality (Ubk, 2024). MacRae posits that acknowledging the complexity of the food system is crucial to being able to create policy about it (1999). Like any other SES, there are a plethora of components, some that will conflict with each other and some that will be in synergy. However, it is important to highlight that there are conflicts that can act as barriers within the food supply planning, so that they can be solved through coordination and followups (Fernqvist & Jönsson, 2023). 43 Furthermore, as the food supply strategy highlights, there are needs to bolster redundancy in the system to create a resilient food supply (Södertälje municipality, 2022). Cattle is but one string in a web of solutions. It is essential to combine short term solutions, with long-term sustainable preparedness (Mistra Food Futures, 2024). The cattle provide short term solutions, yet Södertälje municipality, through the food supply strategy, are working to create a system that is sustainable in the long run. Perhaps the current consumer patterns favour cattle as a solution, but it is evident that Södertälje municipality is working towards utilising their direct influence, ensuring sustainability in the future, as well as acknowledging the current conflicts between sustainability and preparedness.

6.2.4 Internal Alignment

A lack of internal alignment has been identified as a barrier to implementation. Not only was there a lack of understanding as to why food supply should be planned (Ksk 1, 2024), there is also a lack of alignment as to the perception of importance of the plan, with many in the municipality still looking at it as a marginal issue (Sbk 2, 2024). This could be linked to a lack of communication of the plan. However, it could also be linked to a lack of resources and ability of municipal employees to understand food planning. Lack of institutional experience were identified as a key factor in why strategies fail to be implemented (Mansfield & Mendes, 2012). When systems are too complex, some employees can feel as though they do not have enough knowledge to tackle certain issues (Pillora et al., 2009). Nevertheless, this barrier can be repaired by the creation of "good systems", such as internal education and cross-municipal implementation teams (ibid). Although it was stressed that municipal employees do not have time to workshop every strategy that lands on their desks (Sbk 2, 2024), it can be argued that the complexity of the food supply system requires a top-down-led initiative to increase understanding for the strategy and highlight its importance for Södertälje municipality.

6.2.5 External Alignment

No matter how able employees are, if there are fundamental roadblocks, strategies can be difficult to implement. For example, it was identified that it was difficult to implement initiatives within crisis preparedness because there was a lack of support from national leadership (Ksk 3, 2024). This was identified as a barrier when working at a municipal level, as vertical governmental collaboration can often cause extra complications (Pillora et al., 2009). Moreover, vertical collaboration within parts of the Swedish government needs to be developed (Fernqvist & Jönsson, 2023).

Two years after Södertälje's food supply strategy was written, the Swedish government released the investigation "Food Preparedness for a New Era," which outlined a proposal for the municipality's responsibilities in food preparedness terms (SOU 2024:8). This proposal highlights that the municipality should have responsibilities within food preparedness at a local level, including analysing which groups of citizens are vulnerable in a crisis and will need food supplies, planning for distribution, and what specific measures the municipality will need to take to remedy a crisis and continue the supply of food to their citizens (SOU 2024:8, pg. 189-203). Furthermore, the proposal identified that the Swedish Food Agency 44 will have the responsibility for providing guidelines to municipalities regarding food preparedness (ibid). Thus, though this proposal was released after Södertälje's food supply strategy, Sweden is beginning to establish a framework for how municipalities can begin to plan for more resilient food supply systems, hopefully preventing these barriers in the future.

Another barrier that was identified by one interviewee was that the difficulties caused by LOU in reaching a municipal goal of 10% of the public meals being supplied by local producers (Ubk, 2024). However, to alleviate this problem, the Swedish Civil Contingencies Agency has drafted guidelines for public procurement for critical societal functions (SOU 2024:8, pg. 142), which could help navigate the regulatory landscape of public procurement. Navigating these boundaries is difficult because the municipality often does not have the ability to change national or region laws and requirements (Pillora et al., 2009). Influence can be used to pressure other governmental institutions to change frameworks that are no longer benefitting Sweden (Södertälje municipality, 2022a, pg. 10). However, these processes are tedious, and could arguably impact implementation merely since change takes time; time that is essential in building systems that ensure food security.

6.3 Common themes and lessons for the future

Some barriers and catalysts exhibit broader-reaching implications to implementation than others. One barrier that seemed omnipresent was the lack of specifically defined roles due to several factors including: no action plan, insufficient leadership and direction from the municipality, and a lack of follow-up. Much of the literature suggests that having clearly defined goals and responsibilities is key (Fernqvist & Jönsson, 2023; MacRae, 1999; Mansfield & Mendes, 2012), and it seems as though in this respect, Södertälje municipality has potential for improvement. Writing the communication plan, following up on the work that has been done, and hiring key-employees to delegate tasks would be the first steps in aiding implementation through strengthening roles in the municipality.

The holistic approach to food planning engulfs many aspects of the planning system, from electricity to what children eat in schools. It requires a high degree of collaboration (Fernqvist & Jönsson, 2023); however, once it is achieved, a different way of planning food supplies will be in place. This newer way combines different sectors and sees them working together to create robustness, connectivity, and sustainability (ibid). The municipality could then work as more of a "spider in the web" (Sbk 2, 2024), engaging "key intermediaries" (Mansfield & Mendes, 2012), and thus helping to combine initiatives and stakeholders in an environment with more collaboration, to achieve sustainability to a higher degree within the system, as Fernqvist and Jönsson (2023) suggested is the goal of food planning.

It is no wonder that barriers to implementation of the food supply strategy have occurred in Södertälje municipality, as they are embarking on a mission to rethink how food is planned. They have undertaken a newer approach to planning, one that looks at both short-term and long-term sustainability, in the hopes of creating a more sustainable and resilient food system for the future. Considering that few Swedish municipalities have food supply strategies, Södertälje is at the forefront of municipal food supply planning in Sweden. The municipality 45 is no stranger to utilising its influence to achieve sustainability and have actively used the advantage of decades of building a policy framework to their advantage when attempting the implementation of the food supply strategy. Södertälje municipality is working towards treating food preparedness as a key to unlock further sustainability in the food system, a vital aspect of building resilience (Mistra Food Futures, 2024). The term "sustainable preparedness" (ibid) is arguably the result of the implementation of Södertälje's food supply plan and ensuring that it is implemented is imperative to assisting progress within the food system.

7. Conclusion

To establish food security and sustainable, resilient food systems, plans need to be put into motion through implementation. If the implementation of plans to create these systems does not follow through, the system risks being left in a state of inaction. The Food Supply Strategy of Södertälje municipality has begun to be implemented. However, barriers have occurred that have caused the implementation to be slower than anticipated. These barriers are lack of communication regarding the roles and responsibilities within the municipality, logistical issues, the boundaries of municipal authority, a lack of internal alignment, a lack of time and resources, and too few follow-ups. However, these have been offset by catalysts that can help to navigate how the implementation can be remedied in the future. These catalysts are champions of policy, a strong policy base and history within the municipality, and political support. By communicating goals, responsibilities, and tasks in a more direct way, implementation could be benefited. While barriers may hinder the progress of implementation for strategies concerning food security and sustainable food systems, the presence of catalysts illuminated the path forward. In conclusion, the efforts undertaken by Södertälje municipality not only contribute to the development of its local food systems, but they also contribute to enriching discourse on how food supply governance can foster more sustainable and resilient food supply systems worldwide.

Future research could be conducted on how different municipal policies work in synergy with each other to create sustainable food systems. Södertälje municipality has a large policy framework, yet understanding how these plans and strategies work together could help to further sustainability and resilience work. Overall, more research on how food system planning is applied in Swedish municipalities would help to understand the resilience and sustainability of Swedish food systems, especially in food preparedness terms. Municipalities hold considerable authority and influence planning-wise in their geographical jurisdictions, future research into their impact could offer critical insights into food supply system planning.

Södertälje municipality, as well as other municipalities that have a long history of working with questions of food system governance globally, could be analysed to understand how a food system could be built, and what could be learned from the archival records of the chosen municipality. Södertälje municipality is unique in Sweden with the creation of their food supply strategy, yet the strategy itself is the summation of over two decades of work by the municipality. More research understanding the governance of Södertälje, and its food system could be done, helping to widen the discourse surrounding how to govern food systems, and how to increase sustainability through the trials and errors of municipalities that have worked with these issues for longer periods of time.

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