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# To be one step ahead: A survey of Swedish municipal food preparedness

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**Abstract:** Officials of varying backgrounds from a sample of nine municipalities in Sweden were interviewed in a semi-structured format regarding the state of their work on food preparedness, challenges and opportunities for working on said topic, as well as the relation between municipalities and national actors related to civil defence. A vast majority of Swedish municipalities were contacted, and the final interviewees were hand-picked from a group of candidates that accepted a request for an interview. A selection process was used that favoured geographic dispersion throughout Sweden as well as diversity in population densities to capture experiences, perspectives and unique conditions from as diverse of a sample as possible. The results showed that, among other findings, unclear instructions exist regarding legal responsibilities for ensuring food preparedness exist, what level of food preparedness is expected and how municipalities can work on improving it, sometimes also limited by financial and personnel constraints. These governance issues in turn have an impact on overall societal resilience in the case of crises, threatening long-term sustainability through the ability to respond to and recuperate after sudden disruptive, societal events. The Swedish Government and its agencies are recognized, both by municipalities and other actors, as needing to give this field increased attention and take decisive policy steps in order to improve food preparedness nationwide and to fulfil the goals of the Swedish civil defence. Steps suggested by the interviewees include explicit and direct instructions to municipalities and other actors on what needs to be achieved, adequate levels of funding toward increasing food preparedness capacity at all levels of government, and reconsidering the national government's own role in ensuring a sufficient supply of food during peacetime, heightened state of alert and wartime.

**Keywords:** Civil defence, food preparedness, governance, resilience, responsibility, sustainable development

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**Summary:** The purpose of this thesis was to interview a series of municipalities in Sweden regarding their work on the topic of food preparedness, an aspect of general crisis preparedness. The ability of Swedish society to feed itself, be it on an individual level or higher, is of importance to the Swedish civil defence, a part of the total defence alongside the country's military defence. The municipalities that were finally interviewed represented a diverse range of geographic and demographic characteristics, referring specifically to their location in Sweden as well as their respective population densities. The results from the interviews identified a number of issues affecting their ability to work on and prioritize improving food preparedness as part of their normal operation. Such issues included, for example, a lack of clear instructions from the national government and from national laws regarding what goals to achieve, how to achieve them and who is responsible for achieving them, related to food preparedness. Such factors were mentioned to inhibit the ability of the municipalities to ensure stable supplies of food during both times of peace, times of increased societal alert and times of war, potentially having an impact on the long-term sustainability of Swedish society. The Swedish Government and its agencies were recognized to, among other things, being in need of clarifying stated responsibilities of municipalities and other actors important for the civil defence and food preparedness so that they could appropriately prioritize their work, by some municipalities mentioned to require adequate government funding to support related projects.

**Keywords:** Civil defence, food preparedness, governance, resilience, responsibility, sustainable development

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# 1 Introduction

## 1.1 Background

*The background will cover information that forms the basis for the idea around conducting the thesis, e.g. the context behind the formulation of the research problem and the research questions.*

### 1.1.1 Historical and contemporary context

In late 2015 the Swedish Government made the decision that the Swedish Armed Forces, the Swedish Civil Contingencies Agency and other agencies in the civil sphere were to resume planning for so called ‘total defence’, covering both military and civil defence capabilities of Sweden in the case of potential crisis situations (Swedish Government Offices, 2015). The civil defence, specifically, requires cooperation among many individual actors both in the public and private sectors concerning critical functions of civil society like energy supply, transportation and the supply of food and pharmaceuticals. This move came in response to perceived changes in regional security around the Baltic, with an emphasis on increased military activity from the Russian Federation in the region as well as the annexation of Crimea and offensives into Georgia (Swedish Defence Department, 2020).

Since the end of the Cold War the total defence capability had diminished, including the abandoning of the national stores of critical resources like food and fuel intended for use by civilian actors, until the change of course in 2015. The Swedish Defence Department is now arguing for an incremental increase in funding for the civil defence over five years, as part of the 2021-2025 total defence bill, presented as amounting to a spending of 0.42 billion euros in the year 2025 (*ibid.*, p. 8). The Swedish Defence Commission (2017) suggested that it would be necessary to start storing strategic food items again on a national level already during the 2021-2025 defence period.

A fundamental principle of the Swedish system for crisis preparedness is that crisis matters should be managed as close to the location of the crisis as possible, as well as by the closest responsible actor. Molin and Östensson (2015) suggested this in a publication of their research into municipal food preparedness, ordered by the Swedish Food Agency. That report came before the Swedish Government’s decision to resume total defence planning, and so the results give an indication as to what measures had been taken on a municipal level prior to civil defence planning re-emerging officially as an ambition of national politics. Some conclusions from those interviews with individuals and/or groups at the different municipalities were that, for many of them, the issue of food preparedness were new to them and that those interviews acted as wake up-calls for several of them regarding the need to prepare (*ibid.*, p. 52). Two of those municipalities interviewed were shown to have established explicit agreements with local enterprise regarding e.g. food supply availability during extraordinary events and access to reserve power solutions for a local mall, respectively (*ibid.*, p. 34-35). For those that had not been prioritizing this issue a reason for doing so was that, in the absence of a clear understanding of the municipalities’ role regarding food preparedness work, available resources had been prioritized to other administrative areas (*ibid.*, p. 52). Key issues that were identified could, if addressed, help improve future food preparedness work according to the authors. Such issues include, among many, i) clarifying the responsibilities for public administrations, ii) defining “food preparedness” or establishing what could/needs to be done in terms of activities and measures, and iii) the development of a method for systematically mapping local actors in the food business sector (p. 52-54).

For the case of a national food crisis in Sweden, the principle of the most local administrative level possible handling a crisis remains, although as of 2015 the municipalities did not have an explicit civil defence mission related to food preparedness (Molin & Östensson, 2015). In 2018, however, the Swedish Civil Contingencies Agency (also known as MSB) made an agreement regarding general crisis preparedness with the Swedish Association of Local Authorities and Regions representing the interests of all of Sweden’s municipalities and regional administrations (Swedish Civil Contingencies

Agency, 2018). This agreement involved updating and replacing a former agreement from 2013, for example regarding funding for preparatory and capacity-building crisis preparedness work related to responsibilities specified in Swedish law like “act 2006:544”, “ordinance 2006:637” and the so called Local Government Act, or “act 2017:725” (*ibid.*).

### 1.1.2 European crisis preparedness

The prospect of a potential crisis is not limited to Sweden only. For example, the member countries of the European Union each deal with preparedness issues individually, as there is no union-encompassing body to unilaterally coordinate and handle crisis responses to major crises affecting multiple EU nations (Kuipers, *et al.*, 2015). Major crises that required multilateral coordination among European nations include, notably, the global H1N1 pandemic as well as the still ongoing Covid-19 pandemic. Cooperation among affected actors may be required for specific crises, and the response to the outbreak of the Covid-19 virus globally has sparked great efforts regarding information sharing. Data on daily world and country-specific rates of new infections, daily deaths and so on are also displayed to the public and collated through websites like ‘worldometers.info/coronavirus’, made available through efforts of each country affected in reporting this data.

Kuipers *et al.*, however, also note that the EU as an institution has by design not been given the authority to decide on cooperation measures amongst EU countries, which has previously led to difficulties in coordination between the local, regional, national and the union level (vertical cooperation) (Hooghe & Marks, 2001; Kohler-Koch & Eising, 1999; Kohler-Koch, 2003). Each country has different ways and governance structures in place for handling crises, which if countries were to try and coordinate their separate ‘civil security systems’ as Kuipers *et al.* coin them could result in difficulties for horizontal crisis management (2015, p. 3). According to their study that compared such systems for 22 European countries, Sweden is characterized as using a ‘Rather decentralized’ model of delegation and execution of civil security measures, with the national level formulating civil security policy (*ibid.*, p. 7-8). Austria, Germany and Switzerland belong on the extreme of ‘Decentralized’ systems while countries like Hungary, Latvia and Lithuania have ‘Centralized’ systems (*ibid.*, p. 8). A general pattern of European states that tend to score higher (toward positive values) on the survival versus self-expression axis of the 2020 Inglehart-Welzel World Cultural Map (World Values Survey, 2020), including Sweden, also seem to tend toward having decentralized civil security systems according to Kuipers *et al.*’s analysis (*ibid.*, p. 8). Regarding the more practical side of crisis management, the authors found a greater diversity in structure than the previous classification. For example, most countries surveyed take a more generic/all hazards approach to any potential crisis, and most countries also have a specialized agency at the national level dealing with crisis response. Half of all the countries also have regional crisis response agencies. Sweden has no such regional agencies but instead has one at the national level (*ibid.*, p. 11), the Swedish Civil Contingencies Agency.

Interestingly, according to the Special Eurobarometer 383 (European Commission, 2012, p. 4), 82% of EU citizen respondents said they thought coordinated crises responses from the union itself would be “more effective than actions by individual countries”. The diversity of systems for civil security does however post the question of the viability of inter-country crisis management, but Kuipers *et al.* (2015) maintain that this “does not inherently need to be seen as a challenge or an obstacle to efficient or high-quality crisis management” (p. 16). They use the example of the harmonization of rules regarding safety standards and regulations for e.g. chemicals, something that could offer a logical ‘spill-over’ path for reform of European crisis management systems. But, the EU principle of ‘subsidiarity’ states that “policy making and executive authority should rest at the most decentral level”, meaning that such matters should only be dealt with at a level as high as is required of the issue (*ibid.*, p. 17). This serves as another obstacle for cooperation, but the authors instead envision the EU as for example a form of ‘promotor’ instead, by highlighting incompatibilities among national civil security systems without formulating a definitive set of do’s and don’ts. This, they argue, “may help to bridge the gap between an unrealistic one-size-fits-all approach and the current level of fragmentation in structures and approaches” (*ibid.*, p. 18).

## 1.2 Research aim and questions

Based on the background formulated in the previous chapter, the purpose of this thesis project is to survey the state of current food preparedness in a selection of Swedish municipalities. As Swedish municipalities are required to fulfil certain legal goals related to their crisis preparedness, exemplified briefly in the previous chapter, it is important that the relation between national ambitions and local outcomes are studied and explained so that the effectiveness of strategies for crisis preparedness can be evaluated. The aim of this thesis is therefore to explain current relations within the planning for Swedish food preparedness, with a particular focus on the municipal level. The hypothesis is that conditions for Swedish municipalities to appropriately plan for and deal with potential crises, in accordance with Swedish law, may vary based on factors like geographical location, relative importance of food business for municipal economies and municipal administrative resource limitations (Molin & Östensson, 2015).

The research questions for this thesis are:

1. What are the civil defence goals related to national food preparedness in Sweden, and what impacts do these have for the responsibilities of municipal administrations?
2. How has/is the work of Swedish municipalities progressed/progressing in relation to their implied and legal responsibilities, and what has been achieved so far?
3. What are the challenges and opportunities for Swedish municipalities in achieving robust food supplies ahead of and during crises?

## 2 Theoretical framework

*In this section the theoretical framework, including relevant concepts, is presented.*

### 2.1 The crisis concept

The concept of *crises* has been utilized in a variety of contexts due to its metaphorical flexibility, with Koselleck and Richter writing that “In our century, there is virtually no area of life that has not been examined and interpreted through this concept with its inherent demand for decisions and choices” (2006, p. 358). The economy is such an area that even historically was considered subject to crises, for example relating to trade and production systems in for example 19<sup>th</sup> century Germany and England. Koselleck and Richter quote an 1849 article written by Wilhelm Roscher that problematized growing global productivity and the interconnectedness of world economies, whom in their words implied a solution to the problem that would involve government preventative intervention with financial aid (*ibid.*, p. 390). From then on the diversity of the use of the crisis concept expanded but without “corresponding gains in either clarity or precision”, remaining a “catchword” (*ibid.*, p. 397) in more modern times. Other related concepts like that of *security* share the same issue of not having a clear definition while also historically having been co-opted for specific political interests e.g. linked to *national security*, raising questions of “Security for whom?” and “Security for which values?” (Baldwin, 1997). As Koselleck and Richter write, “The concept of crisis, which once had the power to pose unavoidable, harsh and non-negotiable alternatives, has been transformed to fit the uncertainties of whatever might be favoured at a given moment” (2006, p. 399). When further examined it becomes clear that this statement implies that the crisis concept has over time come to be utilized at the user’s discretion, reflecting for example the philosophies of individual practitioners of social and political sciences or potential ambitions of special interests in setting narratives.

Brian Milstein (2015) makes the connection between crises and the political sphere, framing it as a concept of political theory and arguing that “crisis experiences have played a key role in calibrating the aims of politics and the central questions of political theory” (p. 142). Crises are being acknowledged as potentially destructive while alternatively providing potential opportunities for positive change. Marxist literature is identified as an example of displaying imaginary that views crises not only as disruptive but also as transformative, drawing from its views on capitalist society. For the pragmatic approach to studying the use of the crisis concept that Milstein suggests he notes that the concept “rests on some powerful assumptions”, with a crisis representing a real event that however also requires to be acted upon normatively (*ibid.*, p. 143). In this framing of a general political crisis “the body politic may be diagnosed a healthy or sick body by a citizenry empowered collectively to play at once doctor and patient to its own condition” (*ibid.*, p. 144). The fuzziness of the concept then also allows for the meaning of it being politicized, turning it into a contested concept that makes it “subject to abuse” (*ibid.*, p. 143).

### 2.2 Risk and risk governance

Central to the issue of crisis preparedness, or preparedness for any undesired event for that matter, is the concept of *risk*. Aven (2012) argues that there is no single definition of risk, with the equivalent word in languages other than English also sometimes having different meanings. The English version of the ISO 31000:2018 standard, however, defines risk in general terms as “effect of uncertainty on objects” (ISO, 2018). This framing is ambivalent to whether the effect is a positive or negative one, but this thesis deals with food supply robustness and the potential for supply disruptions, and hence it focuses on the risk of negative effects specifically. The term is further connected to ‘risk sources’, ‘potential events’, their ‘consequences’ and their ‘likelihood’, with for example potential events also representing potential risk sources (*ibid.*). The European Council further add onto this that “a potentially dangerous event (...) is not [*sic*] transformed into risk only if it applies to a zone where human, economic or environmental stakes are in presence and this zone has a certain degree of vulnerability” (European Council, n.d). *Risk management* then, according to the same ISO standard, is defined as “coordinated activities to direct and control an organization with regard to risk” (ISO,

2018), with the purpose of risk management being the “creation and protection of value” (*ibid.*). This purpose also helps to for example support “the achievement of objectives” (*ibid.*), which would be important for an organization like a Swedish municipality with either its own organizational goals and societal responsibilities or national laws mentioned in section 1.1 that regulate the operation of said organization.

*Risk governance* is another concept that combines the *risk* and *governance* concepts, with the latter word defined by Merriam-Webster as “the act or process of governing or overseeing the control and direction of something (such as a country or an organization)”. Wilson (2000) further define the concept of governance as “refers to the interaction between civil society and government in determining government action” (*ibid.*, p. 53), with a note that decentralization of authority to local governments is in some countries viewed as an example of “good” or “improved” governance. The International Risk Governance Council define risk governance as “involves the ‘translation’ of the substance and core principles of governance to the context of risk and risk-related decision-making”, where “risk governance includes the totality of actors, rules, conventions, processes, and mechanisms concerned with how relevant risk information is collected, analysed and communicated and management decisions are taken” (Renn & Walker, 2008, p. 9). They further note that “risk governance is of particular importance in, but not restricted to, situations where there is no single authority to take a binding risk management decision but where, instead, the nature of the risk requires the collaboration of, and co-ordination between, a range of different stakeholders” (*ibid.*, p. 9-10). This last sentence offers a major point that may prove to be important for the issue and analysis of municipal crisis preparedness.

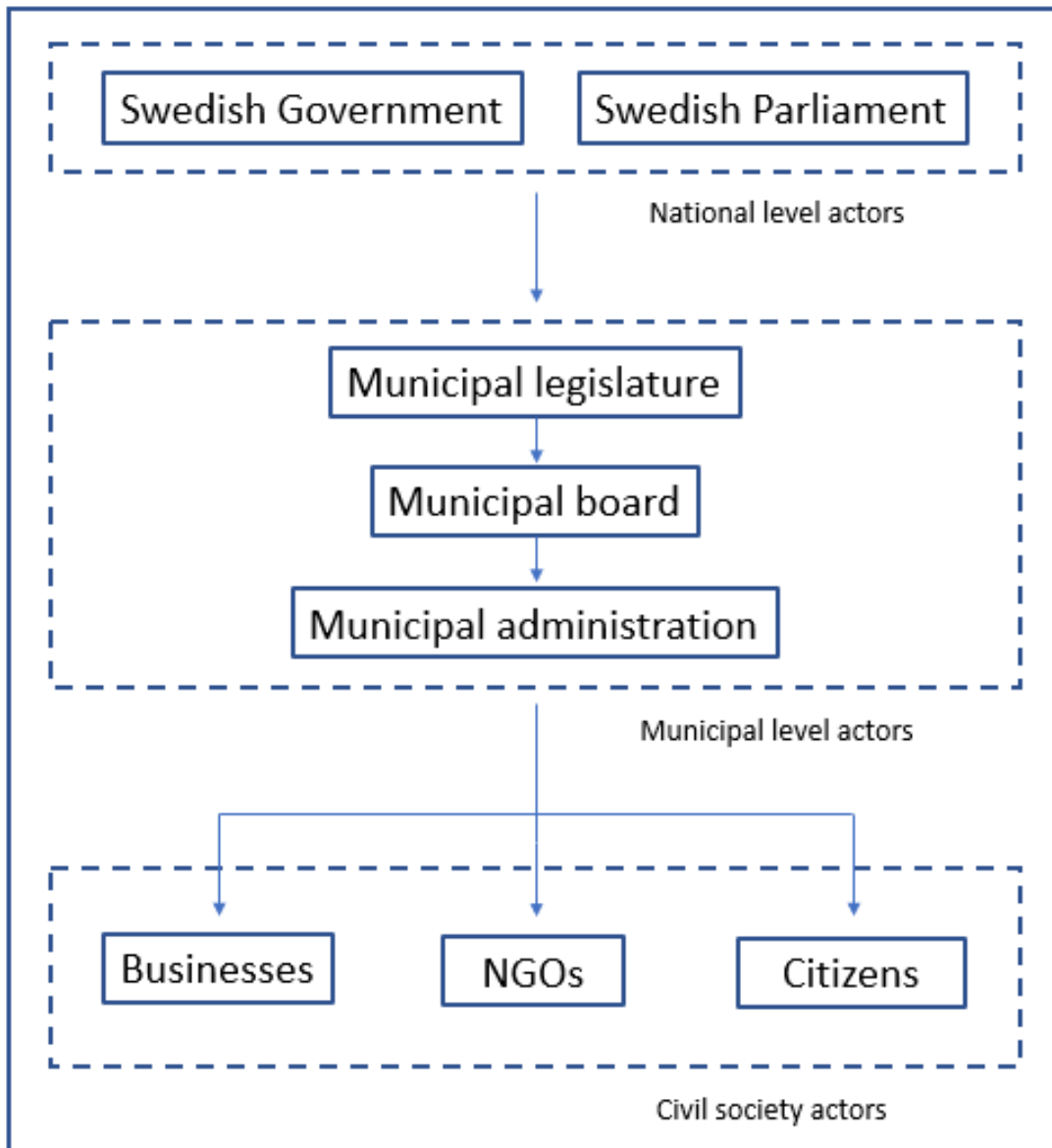
## 2.3 Stakeholder theory and crisis management

In the beginning of their paper, Boin and Renaud (2013, p. 41) argue that “The more actors and the more variety in organizational stripes and feathers, however, the harder it becomes to establish a shared picture of a dynamic situation” in talking about crisis leadership. In the case of a nationwide crisis, like for example a war situation, leadership at multiple levels of government will most certainly be put to the test. With Sweden having a ‘rather decentralized’ civil security system, in the context of many European nations (Kuipers *et al.*, 2015), a particular responsibility lies on the municipality to manage a crisis. For the municipality in the case of a crisis affecting the supply of food for its citizens, the organization will have to have prepared itself for the possibility of such a crisis if major supply issues are to be avoided. A plan for such preparations will most likely need to involve efforts to involve different kinds of stakeholders that may be important in preventing a disarrayed crisis response through special partnerships. Figure 1 (see next page) shows a stakeholder model of the municipality and its relations with other potential stakeholders, adapted for the purposes and the context of this thesis, inspired by Alpaslan *et al.* (2009) in their argument “towards a stakeholder theory of crisis management”. The municipality can for example develop so called ‘crisis agreements’ with food businesses within the municipality (Molin & Östenson, 2015) to create systems ahead of time that may decrease uncertainties and “get a grip of” capacities available to respond to potential crises.

## 2.4 Food and food systems

For this thesis, a definition of *food* also needs to be established. Merriam-Webster’s dictionary defines food as “material consisting essentially of protein, carbohydrate, and fat used in the body an organism to sustain growth, repair, and vital processes and to furnish energy”, but also “such food together with supplementary substances (such as minerals, vitamins and condiments)”. This is a very basic definition, but since food for human consumption is the primary topic it can also be defined as “food items edible by humans”, which would arguably also leave drinking water (although important) outside of this definition. ‘Food items’ can be understood as, for the purpose of this thesis, any form of raw or refined food that humans may digest directly or process into more complex foods.

While on the topic of humans and food; since municipalities would potentially have to manage the procurement of food for its citizens in the case of a food crisis, they would have to interact with the



*Figure 1. A modified stakeholder model, based on Alpaslan (2009), representing different actors that a municipality are affected by (national level and municipal level actors) and ones that might need to be involved in coordinated crisis planning related to food preparedness (civil society actors). National level actors for example craft laws and policy documents shaping municipalities' authority and areas of responsibility, while civil society actors may have resources that could be valuable in supporting a local or regional crisis*

*food system* to ensure that food is secured and distributed. The United Nations Food Systems Summit 2021 Science Group describe a food system as that it “includes the related resources, the inputs, production, transport, processing and manufacturing industries, retailing, and consumption of food as well as its impacts on environment, health, and society” (The United Nations Food Systems Summit 2021 Science Group, 2020). The Food and Agriculture Organization of the United Nations define food systems similarly as “the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption and disposal of food products that originate from agriculture, forestry or fisheries, and parts of the broader economic, societal and natural environments in which they are embedded” (FAO, 2018). A conceptual food system will therefore have important links, from the local to the global, between aspects like for example agricultural production, energy availability and food imports/exports. Modern day food systems,

especially like those of developed countries, are generally characterized by a dependency on for example agricultural inputs and access to fuel and electricity to power agricultural or other kinds of food processing machinery, making for complex systems interactions.

## 2.5 Resilience and resilient organizations

*Resilience* is another concept relatable to crisis management. Resilience is defined and used in many kinds of disciplines such as psychology, physics and ecology. In the case of social-ecological systems studies one definition reads “the capacity of a system to experience shocks while retaining essentially the same function, structure, feedbacks, and therefore identity” (Walker *et al.*, 2006), which is based upon Holling’s (1973) definition focusing on systems’ ability to avoid changing into alternate regimes. With energy security in the 21<sup>st</sup> century still depending to a significant extent upon the regular use of fossil fuels, like oil, a disruption in energy supply may have major societal implications (Cherp *et al.*, 2012), of course determined by the severity and persistence of a disturbance event. Resilience is therefore an important concept to consider, especially in this case of a theoretical energy supply disruption and ensuing effects on national food supply, as the system’s ability to remain functioning in its goal of ensuring stable food supplies is a key issue.

Relating resilience to organizations, what characterizes a resilient organization is that they “keep errors small and improvise workarounds that keep the system functioning” (Weick & Sutcliffe, 2001, p. 14). Boin and van Eeten (2013) posit that there are two theoretical models of resilience, with *precursor* resilience representing a more preventative form that handles disruptions well while *recovery* resilience is characterized by the ability to bounce back after having suffered from a singular event (p. 431). This theorization of resilience can arguably be extended past the organization itself, since a Swedish municipality has a responsibility to serve its citizens and therefore needs to remain functioning in carrying out its mission. Alpaslan *et al.* (2009) also posit in their article on corporate governance that a stakeholder model “may help firms prevent crises or recover from them more successfully”, but they also speak broadly about organizations in general and that a so called ‘stakeholder theory of crisis management’ could benefit e.g. governance at the government level as well. “Managers of these organizations and their stakeholders perform more effectively the complex and coordinated activities required in the heat of a crisis, and respond quickly and effectively to each other's differing needs or interests” Alpaslan *et al.* (2009) argue, compared to if a manager were to employ the more traditional shareholder model instead.

## 2.6 Tying the theories together

Under the banner of Alpaslan *et al.*’s (2009) proposition for a “stakeholder theory of crisis management”, the previously mentioned theories and concepts can be tied together. The connection between the crisis concept and risk has already been established, and resilience may subsequently be connected in terms of the municipality as under the lens of resilient organizations (Weick & Sutcliffe, 2001) as well as the resilience of societal functions like that of the food system. Maintaining the functioning of the food system, dependent on a variety of variables like access to energy for transports and electricity, would be important in ensuring a robust food supply in the case of a crisis. Boin and van Eeten (2013) bring up the *precursor* and *recovery* models of resilience, representing two different levels of preparedness where the former variant would be preferred if the goal is to limit the impact of potential disruptions to e.g. the municipal food supply. The United Nations Food and Agriculture Organization, in defining *food systems*, also draw the explicit connection to the importance of different actors (FAO, 2018). Arguably then, in the pursuit to manage crises and in extension aspects like food preparedness at the municipal level, this conceptual framework of a management approach centred around municipal stakeholder relations provides a good avenue for analysis related to the research questions of this thesis.

## 3 Methods

*This section details the research methodology chosen for fulfilling the research aim. The methods for collecting and analysing data as well as the presentation of results is described.*

### 3.1 Information search

The theoretical and empirical research basis for this report was compiled through searches in online search engines like Google Scholar and the Uppsala University Library search engine, which accesses several major publishers of scientific articles. Some of the references used were found through the reference lists of relevant articles that were first chosen for this report. Specific search words used in narrowing down the search were, for example: “European crisis preparedness”, “European crisis management”, “food preparedness”, “local crisis management capacity”, “crisis stakeholder model”, “risk governance”, “resilient organizations”, “crisis concept”, “strategic management”, etc.

### 3.2 Choice of analytical unit

For the 2<sup>nd</sup> and 3<sup>rd</sup> research questions of this thesis project, Swedish municipalities were chosen as the scale and unit of analysis due to representing the most local Swedish administrative unit as well as due to Swedish governance principle of the so called ‘geographical area of responsibility’. The purpose of the interviews was to, from a small sample of Sweden’s municipalities, collect information pertaining to their work related to food and crisis preparedness, their relation to the national government as well as other actors, their perspectives on food preparedness, etc. The state of municipal food preparedness was surveyed in its status in the present, without comparing it against a baseline at a particular point in time other than that of a previous study (Molin & Östensson, 2015) as well as with recent developments of national policy in mind (Swedish Government Offices, 2015; Swedish Defence Commission, 2017; Swedish Defence Department, 2020). The theoretical model chosen for this study was a stakeholder model, modified according to the context of this thesis (see Figure 1).

### 3.3 Research approach

For the 1<sup>st</sup> research question a literature search for various government documents and other sources was made to collect various descriptions and goals related to national food preparedness. Those documents collected were then studied for any coverage of the topic of civil/total defence and/or food preparedness, both to fulfil the aim of the research question itself but also to act as basis for comparison against any findings derived relating to the 2<sup>nd</sup> and 3<sup>rd</sup> research questions.

The aim of the thesis meant that, for the 2<sup>nd</sup> and 3<sup>rd</sup> research questions, it was necessary to perform an interactive study that would engage with individuals at the municipal level to understand the state of their respective municipalities’ work as well as their perspectives. An inductive qualitative method was therefore applied, based off the interpretation of non-numerical data for specific settings (Robson, 2011). Qualitative research tends to be used in order to explain how processes and strategies develop over time depending on underlying history and activities (Bryman & Bell, 2013). A major trait of qualitative research is that “It may also be used in informing the development of interventions or in understanding barriers and facilitators to their successful implementation” (Denny & Weckesser, 2018), which relates well to the problem formulation of this thesis due to the lack of comprehensive information on how Swedish municipalities are situated in terms of their food preparedness and what their strategies are for dealing with said issue. In designing a qualitative study, one issue is that of whether the methods should be pre-determined or, alternatively, refined during the course of the study (Cypress, 2018). Qualitative research can utilize structured or unstructured approaches, with the latter having the benefit of allowing for “a focus on the particular phenomenon being studied, which may differ from others and requires individually tailored methods” (*ibid.*, p. 302). Prior to initiating the study and through research on established empirics (Molin & Östensson, 2015) it was assumed that conditions for doing such work would probably vary across subjects due to several potential factors like geography and demographics. The decision was made to structure the interviews as semi-



structured so that potential differences in initial response to a set of pre-determined questions could be further discussed in a case-tailored manner, allowing for context-specific information to be obtained.

The main method involved performing online-based interviews with municipality staff at a handful of Swedish municipalities (through platforms like Zoom, Teams and Skype), who were reached out to via municipality service e-mails and (when successful) made contact with through being forwarded to relevant persons. Relevant persons were seen to include functions and roles within areas such as crisis and preparedness management, dietitians, administrative or organizational developer, etc. The intention was to contact every single municipality with an interview request, but in the end around 90 percent of all 290 municipalities in Sweden were sent a request for interviews. The remaining count, those not contacted, were represented mostly by municipalities without a simple e-mail address. A major factor on the rate of response that was kept in mind during the outreach process was the ongoing Covid-19 pandemic and its potential effects on the likelihood of a municipality response and its ability to participate in an interview, through the impact on administrative resources related at least partially to crisis management. Of the responses that returned negative to the request for interviews, a mix of very straightforward rejections without much elaboration as well as responses explaining their inability or unwillingness to participate was shown. In combination, the negative responses outnumbered the positive responses by a significant amount.

### 3.4 Interview candidate selection process

Of the municipalities that responded positively to the interview requests, who amounted to 32 municipalities in total, a selection was made based on two separate factors: geographic location and a classification system of Swedish municipalities (Swedish Association of Local Authorities and Regions, 2017). For the geographic factor, the municipalities were selected based off the European Union system for categorizing different regional levels for socio-economic analyses called 'NUTS' ('Nomenclature of Territorial Units for Statistics'). Sweden is, as of January 1<sup>st</sup> 2021, separated into three "major socio-economic regions", eight "basic regions for the application of regional policies" and 21 "small regions for specific diagnoses", each level labelled as NUTS 1, NUTS 2 and NUTS 3 respectively (Eurostat, 2020). Swedish counties fall under the NUTS 3 level, and Swedish municipalities are divided on an ever lower level called 'LAU 2' ('LAU' meaning 'Local Administrative Unit') (Statistics Sweden, n.d.). Geography was then coupled with the respective classes of interested municipality representatives to form a final selection that was designed to represent a diverse set of Swedish municipalities in both aspects, covering all eight NUTS 2 regions in Sweden and all nine available municipality classes. Notably, one sub-class not covered by the interviews was the 'Large cities' class representing the three major urban centres of Stockholm, Gothenburg and Malmö. Of those three, Gothenburg and Malmö declined the interview requests while Stockholm was intentionally not contacted. Also of note is that some individual interviewees represented several municipalities in their respective roles, leading to interviews covering multiple municipalities simultaneously in those cases.

### 3.5 Interview plan

In the interviews with the representatives of each municipality (that responded to the interview requests) the respondents were asked to answer some of the questions based off their existing knowledge and perception, without necessarily representing an official position of their respective municipalities. The respondent's perception to the issues raised by the interviewer is what is supposed to bring light to the phenomena in an unstructured interview (Cypress, 2018). This thesis is however based on semi-structured interviews, where the participant is free to answer open-ended questions to which the interviewer then probes the responses, based off a relatively detailed interview guide (McIntosh & Morse, 2015). The semi-structured interview "is designed to ascertain subjective responses from persons regarding a particular situation or phenomenon they have experienced (...) when there is sufficient objective knowledge about an experience or phenomenon, but the subjective knowledge is lacking" (*ibid.*, p. 1). This fits well into the scope of this thesis, as there is already

objective information regarding relevant laws, certain national strategic documents and other texts on the matter. These could be complemented by empirical investigation at the local level to establish how e.g. those levels of government relate to each other on the topic of food preparedness, in line with the stakeholder model. Each participant goes through the same general process of being asked the same questions, in the same order and in a way that makes that data comparable between all cases. Early on a researcher may acknowledge that the scope of their information is limited, from where a semi-structured interview may confirm or refute initial knowledge based off the participants' perspectives, according to the "descriptive/interpretative" heuristic type of semi-structured interview (*ibid.*, p. 4). Another "descriptive/divergent" type of semi-structured interview instead focuses on discerning the differences and similarities in perspectives between disparate groups, which in the case of the thesis and the selection seems like the most fitting heuristic type due to the diversity in geographic and demographic characteristics of involved municipalities (*ibid.*, p. 4).

The interviews were arranged between May 17<sup>th</sup> and May 31<sup>st</sup>, per agreements made with each interviewee, and lasted between 40 to 60 minutes in length as each interviewee were thought to represent municipalities with varying capacities and interests for general crisis preparedness, as well as for food preparedness planning specifically. A series of guiding questions were used as a basis for the conversations, alongside follow-up questions crafted to spur a discussion depending on the contexts of each municipality, taking in mind for example demographic and geographic characteristics. A full guide for the interview process can be found within Annex 1. Annex 2 describes the roles of each interviewee, who in some cases are not employed at the municipalities in question but work at an external organization like a "Räddningstjänst" (translated roughly as "Civil protection service") that sometimes have a geographical responsibility for managing crisis preparedness for one or multiple municipalities.

Each interviewee was distributed a preliminary version of the thesis on July 5<sup>th</sup>, 2021, for potential feedback and per the token of transparency offered as part of the invitations to the interviews. Only three of the interviewees have responded after receiving the thesis version, and none of them have since then returned a request to modify a part or parts of their accounts summarized in this thesis.

### 3.6 Data analysis and presentation of interview results

The interviews were recorded using a recording software for the purpose of later analysis, and the interviewees were also offered the possibility of receiving and providing input on a transcript in post, with respect to details that might be considered sensitive or classified as part of their respective Risk and Vulnerability Assessments (or RSAs). The RSAs are available to the public through the Swedish Civil Contingencies Agency, but a request for access must be submitted. Because of this it was deemed that they were not a suitable option for retrieving information, for the purpose of this thesis project. The interviews were then examined one by one, gone over and re-winded multiple times to ensure that all information relevant to answering the research questions were summarized and transcribed. After these steps had been taken a process of coding the information and making sense of it was conducted (Cypress, 2018, p. 307). From the results that were collected, key pieces of information relating to the main interview topics were extracted and sorted into six primary categories of conversation (see Table 2-7). Those findings were then described in chapter 4.2 of the Results section of this thesis. Analysis and interpretation of the results then continued in the following "Analysis" section of the thesis, where the most important realizations of the data sample were highlighted and compared with the research questions. To maintain the anonymity of each municipality's response, in Table 2-7 all interview subjects are labelled as "Municipality 1, Municipality 2...", etc., ordered only based on the order in which the interviews were undertaken to hide their name as well as geographic and demographic characteristics used for the selection process. The names of the interviewees are similarly not disclosed, for the same reasons as well as privacy reasons.

### 3.7 Generalizability and validity of interview results

Out of the many municipalities contacted, only 32 municipalities responded positively in some way or another indicating that they would be interested in partaking as interview subjects for the interview study. Qualitative research may, as a rule, not be generalized when the sample size is relatively small and for this thesis non-randomly chosen (Bryman & Bell, 2013; Robson, 2011). Performing a study across multiple, individual cases does however lend some ability to make analytical or theoretical generalizations (Robson, 2011), while also allowing the researcher to compare findings from each case and determine what makes each case unique as well as what they have in common (Bryman & Bell, 2013). A set of selection criteria were defined, as described in chapter 3.2, and those governed what municipalities were eventually chosen for an interview. The goal was to create a geographically and demographically varied selection, with the intent of providing the outcomes of those interviews a sense of generalizability for drawing possible parallels to the rest of Sweden regarding the topic of food preparedness. The sample can be considered small, but the idea of this study was modelled around the design of the similar study made by Molin and Östensson with a similar sample size, although their sample was less diverse especially concerning the geographical variable (2015, p. 16). The author of this thesis would like to argue that any findings from this study, given the otherwise similar design of questions, at least improved upon that one aspect.

Due to the nature of the chosen qualitative research method the results had to be interpreted based on the individual responses from each municipality and put into a larger context, relating each interviewee's response to the others. In regard to the reliability of the chosen research approach, critics of qualitative research argue that less structured research is more subjective and difficult to replicate (Bryman & Bell, 2013), with additional risk of research bias and the use of selective information (Robson, 2011). The researcher may be described as an instrument that may influence the study, and it is therefore upon them to make sure that they are aware of potential points of influence and that necessary measures are taken to address said issues, although they cannot be eliminated (*ibid.*). In the case of multiple interviewees per municipality, each response was combined to compliment that of the other interviewee from the same municipality. Six out of the nine municipalities interviewed provided just one interviewee while one was represented by two officials simultaneously, another was split into two interviews with one per each interviewee and the final interview hosting two interviewees with one of them being an intern. The fact that the study was designed in such a way that the results would need to be interpreted, given the semi-structured and inductive strategy, conditions would possibly vary significantly, resulting in slightly different information from each interviewee.

## 4 Results

*The contents under this main heading will cover the results produced from the work into answering the research questions of this thesis. The basis for the first research question will be covered under chapter 4.1, while the results relating to the remaining two research questions will be covered under chapter 4.2.*

### 4.1 Civil defence goals and municipal responsibilities

As of December 15<sup>th</sup>, 2020, the official goals for the civil defence as stated by the Swedish Government are:

- i) “to protect the civilian population,
- ii) to ensure the functioning of important societal functions,
- iii) to maintain necessary supply conditions,
- iv) to contribute to the abilities of the military defence during an armed conflict at home or in our geographical neighbourhood,
- v) to maintain society’s resilience against external pressures and contribute to strengthening the will to defend,
- vi) to contribute to strengthening society’s ability to prevent and manage difficult stresses on society during peacetime, and
- vii) to contribute, with available resources, to the ability to participate in international peacebuilding and humanitarian efforts” (Swedish Government Offices, 2020).

These stipulated goals are taken as representing the official framework outlining the objectives of the Swedish civil defence, for the purposes of this thesis.

#### 4.1.1 Recent civil defence inquiries

An inquiry on civil defence was delivered to the Minister for Home Affairs on March 1<sup>st</sup>, 2021, translated as “Structure for increased resilience”, with a sweeping list of suggestions and considerations for strengthening the civil defence capacity of Sweden (Swedish Government Official Reports, 2021). In the 636 page long report a number of the suggestions concern municipalities, including suggestions for the additions of acts and ordinances related to e.g. “preparedness of municipalities and regions”, changes to the Local Government Act and changes to the ordinance on total defence and heightened state of alert, among many others directly and indirectly related pieces. A key part of strengthening the civil defence relies on creating “clear conditions for management and responsibilities to achieve coordination within the civil defence as well as between the civil defence and the military defence” (*ibid.*, p. 25). The Swedish Government, in their directive to initiate that inquiry, they gave the task to deliver “suggestions for a structure on responsibility management and coordination within the civil defence” (*ibid.*, p. 25), with the aim of this also contributing to Swedish society’s general crisis preparedness. A major part of their overall assessment revolves around the proposition to establish ten “preparedness sectors” aimed at grouping certain government agencies together into specific areas of responsibility for protecting certain functions of “societal importance”, with one agency being the leading agency as part of each sector (*ibid.*, p. 27). One such sector is suggested to revolve around the supply of food and drinkable water, where the Swedish Food Agency would head a group including itself, the Swedish Board of Agriculture, the Swedish National Veterinary Institute, the county boards as well as the Swedish Environmental Protection Agency (*ibid.*, p. 28). On top of this they suggest that six so called “civil areas” need to be established through which all civil defence related management is governed from, with each civil area having its own head person leading said work (*ibid.*, p. 32). An added ambition mentioned is to bring the number of “military regions”, the military equivalents of the proposed civil areas, to match from its current number of four and to make them overlap for clear zones of coordination and shared areas of responsibility (*ibid.*, p. 27).

At the end of March, 2021, another report was also published where the Swedish Food Agency and Swedish Board of Agriculture jointly analyse experiences of the Covid-19 pandemic's impact on the food supply. They also present key takeaways that they argue could help achieve a more robust food supply in the event of societal disruptions, crises, heightened state of alert and potentially war (Swedish Board of Agriculture & Swedish Food Agency, 2021). It is important to note that the food retail sector had been able to keep up with rising demand for food items, while the restaurant and hotel sector suffered significant drops in economic turn-around and hence led to suppliers being affected. To summarize, the food chain has overall been able to ensure that no major food shortages occurred during the period of the still ongoing pandemic, with many consumers increasing their share of food consumed at home due to attempts to socially distance themselves from others (*ibid.*, p. 7-9). However, for example, the transport-intensive food chain saw 40% of all freight companies affected by pandemic-related disruptions and delays during the early part of the pandemic (*ibid.*, p. 10).

The same report highlights some key issues and necessary things to solve from a government and agency standpoint to improve food preparedness. For example, clarifying the role of the government in crisis preparedness and what the citizens may expect from the state and the municipalities is mentioned as one such area while making sure that the public at the same time knows what is expected *of them* in terms of their own capacity to feed themselves and assist others if possible. The authoring agencies of the report mention that they would encourage the Swedish Civil Contingencies Agency to “further improve the educational material sent out to all Swedish households concerning food and water preparedness, as well as more regularly inform the population about household preparedness” (*ibid.*, p. 26). The report notes that anyone who can take care of themselves and have the resources to do so should be able to survive for one week on their own, if normal means for ensuring their basic needs like sustenance are being disrupted (*ibid.*, p. 20 & 26). The effects of the pandemic have however left citizens with faith in the ability of the grocery stores being able to stock up sufficiently, according to surveys done by the Swedish Civil Contingencies Agency (2020) and the business network called the Swedish Food Federation (2020).

#### 4.1.2 Related national ambitions regarding food preparedness

The Swedish Defence Department (2020) note that “It is particularly important that the work of strengthening the resilience of the most important societal functions is further developed and deepened” and that “Safeguarding the most important societal functions includes maintaining necessary supplies” (p. 10). The latter quote offers a clear link to the topic of this report, although not specifically in a municipal context. The Swedish Defence Commission also stated in 2017 that the aim of the Swedish total defence, that is both civil and military defence, is to ensure the “capability to resist serious disturbances in the functionality of Swedish society for three months” (Swedish Defence Commission, 2017, p. 2). They further add that “In a situation of war or when there is a risk of war, the total defence efforts will be focused on military defence”, which leaves alternative non-war scenarios of severe supply disruptions to critical resources like food during peacetime neglected.

The National Food Strategy is another document with a set of goals and ambitions for the Swedish food system, mainly set around boosting Swedish food business (Swedish Ministry of Enterprise and Innovation, 2017). Key issues raised are those of the competitiveness in comparison to imported foods as well as the marketing of traits of Swedish agriculture and food production, mainly. The idea is that by strategically investing in these areas to ensure that more food can be produced domestically, both for use at home and exports, with benefits like decreased environmental impacts and boons for job creation being key selling points. Reducing the significant reliance on imported foods for Swedish food consumption would also be of importance regarding food preparedness, but food imports is not the only, and arguably a lesser, dependency issue for the Swedish food system (Eriksson, 2018).

## 4.2 Municipality interviews

The interviews with interviewees representing the, in total, nine primary municipality subjects (listed

in Table 1) have shown that each responding municipality differ in various aspects related to their food preparedness work, but also remain similar on a number of topics. The interview results are summarized in table form, due to the qualitative nature of the method used, under Table 2-7. In-depth analysis of the results from this chapter will be presented under Section 5.

Table 1. List of municipalities interviewed and their demographic characteristics.

<i>Municipality (date of interview/-s)</i>	<i>Population<sup>a</sup></i>	<i>Population density<sup>a</sup> (inh./km<sup>2</sup>)</i>	<i>Specific category of municipalities<sup>b</sup></i>
Haninge (May 20th)	93,690	205.7	Commuting municipality near large city
Varberg/Falkenberg (May 18th)	65,397/46,051 resp.	75.3/41.5 resp.	Small towns
Trollhättan (May 18 <sup>th</sup> and May 19th)	59,249	144.6	Medium-sized town
Trelleborg/Vellinge/Skurup (May 21st)	45,877/36,915/16,042 resp.	134.9/258.8/82.9 resp.	Commuting municipalities near large city
Sollefteå (May 17th)	18,872	3.5	Rural municipality
Heby (May 19th)	14,101	12.1	Commuting municipality near medium-sized town
Smedjebacken (May 31st)	10,854	11.4	Commuting municipalities near small towns
Borgholm (May 19th)	10,836	16.0	Rural municipality with a visitor industry
Robertsfors (May 21st)	6,748	5.2	Commuting municipality with a low commuting rate near medium-sized town

<sup>a</sup> Source: Statistics Sweden's (2021) public database, for numbers representing the end of the year 2020.

<sup>b</sup> Source: Swedish Association of Local Authorities and Regions (2017).

Table 1 shows varying demographic statistics and characteristics of the interviewees' municipalities, spanning e.g. very rural to urban geographic settings from locations between the very southern parts of Sweden to quite far north in the country. Their municipality categories are also listed to give a sense of what general grouping and type of municipality each interviewee was representing, for contextual purposes.

## 4.2.1 State of municipal food preparedness work

The first topic of the interviews centred around accounts describing the general status of crisis and/or food preparedness work, such as existing plans in either domain.

Table 2. A summary of existing plans as well as planning efforts for each municipality related to general crisis preparedness and/or food preparedness.

<i>Municipality</i>	<i>Existing plan(s) for crisis preparedness</i>	<i>Existing plan(s) for food preparedness</i>
1	“Steering document for the municipality’s work with crisis preparedness and civil defence 2019-2022”, no explicit relation to food preparedness. Plans for managing cut-outs in electricity access as well as isolation in the case of e.g. snowy weather conditions.	Continuity planning within the nutritional unit and elderly care units, varying conditions locally. Central planning toward ensuring three days of continued service of municipal functions. No official plans specifically related to food preparedness.
2	Strategies for crisis preparedness, “Action programme for protection against accidents”, “Guideline for managing societal disturbances and extraordinary events”, without any explicit reference to food preparedness. Planning day for crisis and food preparedness. More advanced planning related to water access in the case of a crisis.	No publicly available plans specifically related to food preparedness.
3	“Action plan for managing extraordinary events”, although not available in PDF form, covering e.g. access to electricity and heat. Working along the basics of the agreement between the Swedish Civil Contingencies Agency and the Swedish Association of Local Authorities and Regions.	Collective provisioning of meals is part of the “Action plan for managing extraordinary events”. It is also mentioned on the municipality’s website that “Meal provisioning and temporary housing will be providable to the public at ‘safety points’”. Proper planning started only within the last 2-4 years. Crisis menus developed for maintaining service with low staff availability. Otherwise, no documentation specifically covering food preparedness.
4	“Steering document for work with crisis preparedness”, no mention of food preparedness other than protecting “human life and health”.	Special plan for preparedness of municipal units related to food. County board started an initiative prior to the pandemic with the intent to examine food preparedness, but which was deemed too complex and outside of the municipality’s control. No further plan for food preparedness, other than recognizing the importance of agriculture and limited transport connections.
5	“Plan for extraordinary events”. Improvements to crisis preparedness work need to be undertaken. Good planning for emergency water solutions. Efforts to increase the prevalence of a “security culture” within the municipality	Limited stores of food at schools and elderly care facilities, no planning for larger stores. The municipality’s own transportation options to deliver meals from the central kitchens to municipal functions need to be

	management.	investigated.
6	“Programme for municipal security and risk management work”.	No official plan for food preparedness. Meal-producing kitchens are decentralized for schools while centralized for the elderly care. School managers are themselves responsible for their respective kitchen units. A larger, strategic kitchen with reserve power and over-capacity is being designed.
7	“Steering document for crisis preparedness”. No other direct access to municipal plans.	As part of the document mentioned: “The municipality’s citizens shall be informed regarding household preparedness based on local conditions.” No further mentioning of plans related to food preparedness.
8	“Steering document for crisis preparedness 2019-2022”. “Continuity analysis of functions of societal importance”. “Plan for extraordinary events”. Certain agreements with businesses regarding e.g. cleaning up oil leakages or plowing roads during snowy weather.	Plans at the kitchen units may exist already in absence of official documents and alternative to plans made outside of said units. Interviewee not convinced written plans often connect to the real world in terms of e.g. the kitchens’ capacity and plans. No specifics on food preparedness mentioned in crisis preparedness plans.
9	“Steering document for the municipality’s work on crisis preparedness 2019-2022”. No specifics toward food preparedness.	Food storage targeted towards the elderly care system, for the moment, dimensioned for lasting three months. Revisioning of deals with suppliers for acquiring more “complete” sets of food items that should also last longer. Some redundancy in available kitchens’ ability to expand meal production.



## 4.2.2 Importance of agriculture and food business

The second topic of the interviews focused on the role of agriculture and food businesses in each municipality or collection of municipalities of each respective interviewee. The intention was to discern how vulnerable a particular municipality might be in the face of potential food supply disruptions. Relative importance of the food sector in the local economy, absence or presence of major food business, reliance on food imports for local needs etc. were part of this general query.

Table 3. A summary of the importance of both municipal and external businesses within agriculture and the food business sector.

<i>Municipality</i>	<i>Description</i>
1	A minor agricultural sector with no major actors within the larger food sector. Significant amounts of former cultivated agricultural land that is being maintained with European Union farm support funding. There is a desire to encourage people to move into the municipality and hopefully engage in agriculture either on a business level or for self-sustenance to boost local food production.
2	Significant amounts of agriculture and food business operations, including dairies, slaughterhouses, seafood processing etc. Long-term conflicts between growing urban centres and expanding housing areas onto productive agricultural land exist, making that aspect of food preparedness a political issue.
3	Primarily an urban and industrial centre, without a major agricultural or food industry within the municipality itself. Access to the surrounding agricultural region is however good.
4	Agriculture and the tourism industry the two main industries in the municipality, with its agricultural produce also representing significant parts of the national food production, for example concerning dairy. Most if not all the produce is refined outside of the municipality's borders. Drought and weather in general important factors for productivity.
5	Around in 1 in 10 adults are self-employed with major connections to agriculture and food business, often in the form of small and local producers.
6	Limited agricultural production, more so related to household needs. Minor local suppliers of seafood and beef, alongside one producer of eggs. Reliant on external suppliers for regular food deliveries.
7	Farm business-dense municipality, with major suppliers and food business outside of the municipality but whose products may have an origin in the local agricultural sector.
8	Very good soil conditions and climate for agriculture. A variety of established food businesses as well. Potential conflicts between growing urban centres and expanding housing areas onto productive agricultural land exist, especially due to the area being an important agricultural centre.
9	Limited agricultural production, with a 30% self-reliance on meat products. Limited presence of food business. Aging population within the agricultural industry. Slight disruptions to certain food supplies during the Covid-19 pandemic.

### 4.2.3 Top-down directives and guidance

The third part of the interviews were dedicated to uncovering what each municipality representative, in their mind, thought about directives from higher up in the administrative ranks of Swedish governance, be it in the form of e.g. regional/national goals, laws and strategies concerned with food production, crisis and/or food preparedness, etc. Specifically, the questions were asked in relation to what they meant for the municipalities' own work and administrative responsibilities.

Table 4. A summary of the perception of each municipality on current level of directives and guidance from higher levels of government in determining and clarifying municipal responsibilities.

<i>Municipality</i>	<i>Perception</i>
1	Unclear instructions, despite national laws and other documents on how “prepared” municipalities for crises, inhibits municipal planning for food preparedness and what the scope and level of it should be. Major questions regarding what level of service would be necessary in supplying e.g. schools and possibly the general public with meals during a crisis. Clear instructions for both the municipality and respective county boards would “surely” allow for proper food preparedness.
2	Not clear what is expected of the municipalities related to food preparedness, concerning both its responsibility toward the public and the national level etc. “Better than average” prepared ones likely supported by e.g. passionate employees, politicians in working on the topic.
3	The question of what the Defence Department will be expecting of the municipalities was raised. The Covid-19 pandemic is also mentioned as possibly having opened the eyes of the municipal board toward prioritizing crisis planning issues further. Passionate employees and managers of municipal units a more critical factor for developing their crisis preparedness rather than the national government and its agencies at the moment. It is also easier to pitch an effort on the municipal level if the national level offers decisive instructions and requirements. Pros and cons with letting municipalities handle crisis preparedness efforts on their own.
4	The issue of food preparedness is too complex to tackle more widely at the municipality due to certain aspects remaining outside of its ability to affect. This indicates that top-down decisions and management may need to be developed, without any further comment on the topic.
5	High-level municipal managers are positive toward improving and working on crisis preparedness. A higher national priority of improving food preparedness alongside resource and financial constraints being resolved would together help strengthen overall ability to cope with food crises.
6	Awaiting Swedish Food Agency's so called “Preparedness handbook for public meals” for further work. Will provide clarity on what would be expected of municipalities, and would also provide support for implementing projects related to strengthening food preparedness within the municipality in terms of available guidance as well as convincing municipal boards and key managers.
7	No additional need for support, opposed to the need for further guideline being necessary

	for allowing municipalities to advance in their food preparedness work.
8	Personnel and financial resources major obstacles for developing food preparedness. Specific government funds alongside clear goals toward working with food preparedness, e.g. hiring to a specific position or establishing food municipal storage, are desired. Loss of the former civil defence lead to the loss of central operationability, including managing national food stores, leading to responsibilities for preparedness work falling on more local administrative levels. Politics and top municipal managers are positive toward crisis preparedness work. Individuals working on crisis preparedness also important for catalysing such work.
9	Developing templates for writing plans and such related to food preparedness, from the side of government agencies, would be helpful in boosting progress.

#### 4.2.4 Resources and finances

The fourth part of the interviews revolved around available resources and finances, or lack thereof, to do work related to maintaining or improving crisis and/or food preparedness.

Table 5. A summary of the perception of each municipality on possible resource and financial constraints for working on general crisis preparedness and/or food preparedness.

<i>Municipality</i>	<i>Resource constraints</i>	<i>Financial constraints</i>
1	The management of the pandemic has raised awareness for the need to plan for other kinds of crises as well, raising the importance of working on crisis preparedness. The time required to report on the status of the pandemic within the municipality could instead be used to further plan for improved crisis preparedness.	There is general spenditure related to crisis preparedness and war-time preparedness that is more-so being encouraged from higher-level actors, leaving other potential areas of crisis planning like food preparedness to be down-prioritized in favour of other interests. Unclear expectations of municipal food preparedness also limits spenditure related to food preparedness and connected areas.
2	Priorities for crisis preparedness lie mostly elsewhere, and the time that it takes to make inquiries into and start planning for food preparedness is an additional issue. National inquiries into the responsibilities and capacities of municipalities, which are now happening, is something that should be made to assist municipalities in allocating appropriate resources to planning for food preparedness. Regular analyses of municipal preparedness can distract from practical preparedness advancements.	No specific comment related to the financial situation of the municipality. Highlights that the question of where funds are forwarded to would depend on where the further expansion of food preparedness capacity should be centred, either locally or more so at the national level.
3	Resources and the ability to plan for crisis preparedness increased when several municipal units were merged into one, allowing for a more holistic management of and planning for potential crisis scenarios, specifically related to the design of a new central kitchen. Relatively many people working on crisis preparedness within the municipality compared to many others. The crisis preparedness unit is also positioned closer to the highest organizational positions of the municipality than many other ones.	Municipalities in general may be unwilling to spend money on issues that are viewed as less important in relation to other perceived critical areas. The pandemic showed that financial constraints became a non-issue during the pandemic when necessary protective gear needed to be acquired.
4	A small administration means individual employees work in several areas. Pandemic has consumed the entirety of crisis preparedness work. Collaboration with a neighbouring, similar municipality occurred before the pandemic but will be resumed once possible.	Funds are given from the Civil Contingencies Agency toward crisis preparedness work. Smaller municipalities often prioritize funding “normal” functions like education and elderly care due to financial constraints. Additional funds for smaller municipalities toward crisis preparedness would “surely”

		help.
5	A small administration with several areas of responsibility among employees, especially for the interviewee. Lack of further resources mean that food preparedness is not being prioritized to a greater extent.	Government support covers crisis preparedness but does not offer much additional room for crisis planning related to e.g. food preparedness. Increased funds would allow for greater work on food preparedness.
6	Efforts to combat the pandemic has diverted attention and resources from working with food preparedness. But, the municipality has increased the amount of staff related to crisis preparedness, leaving the municipality in a good position to expand their efforts when responsibilities become clarified.	Government support for initiating and driving projects no crisis preparedness was something that was unknown to the interviewee. Major financial constraints did not seem to exist, however.
7	Good availability of resources to work with food preparedness. No major obstacles, in general.	Government support for doing crisis preparedness work is being utilized, in part for food preparedness.
8	Available personnel, rather than finished plans, the most important.	The municipal economy affects e.g. how extensive storage solutions can be made for crisis purposes, and raises the question of which actor should pay for what etc.
9	Small administration but close contact with top municipal managers. Top managers and colleagues willing to cooperate.	Relatively wealthy municipality. Government support also received for crisis preparedness work. More funds will always help.

## 4.2.5 National food stores

The fifth part of the interviews was focused on learning how each interviewee perceived of the idea of re-establishing national emergency food stores, like those that existed prior to the dismantling of much of Sweden’s civil defence capabilities with the end of the Cold War era and its entry into the European Union. Parallels were drawn in particular to the second and third general interview topics.

Table 6. A summary of the interviewee’s perception of the idea of re-establishing national food stores and how effective that measure would be in supporting food preparedness.

<i>Municipality</i>	<i>Perception</i>
1	A level of acceptable food preparedness needs to be defined so that then a tiered system of both individual, local, regional and national responsibility may be implemented to ensure redundancy in the supply of food during successively longer periods of disruptions. Appropriate support mechanisms, including financial, should then be created to allow municipalities to achieve defined goals. The systems of other countries, like Finland, should be studied. The same level of ambition should be common for all municipalities.
2	The municipality is reliant, concerning the supply for its own service functions, on the ability of food suppliers to keep stores of food, with the interviewee not being able to their knowledge discern whether the municipality has their own emergency food stores. The idea of re-establishing national stores is viewed positively in order to create a form of redundancy and flexibility for municipal preparedness, both directly related to food and other means for producing meals.
3	No clear opinion on the usefulness of national preparedness stores of foods and other critical items. Cost of national strategic stores versus local stores is raised with a combination of the two probably being the better option. Any store should be dimensioned and funded accordingly to satisfy actual needs in the case of a crisis.
4	Doubtful of the usefulness of national food stores. Municipal functions should instead be reinforced with additional space and facilities for storing emergency foods.
5	Cautiously positive toward re-implementing national food stores, unsure whether it would be a solution. National food stores would in theory alleviate part of the burden on municipalities, of course.
6	Comments on what national food stores would end up containing were raised, as the kind of long shelf-life products that would be suitable for storage would in times of no crisis need to be cycled, which municipal meal-producing functions may deem too low quality.
7	Positive toward re-establishing national food stores and the benefits it would bring.
8	The Swedish Food Agency and the Swedish Board of Agriculture should go back to and become more operative and re-establish national food stores alongside regional and local stores, boosting robustness rather than being busy “writing documents”.
9	Optimistic toward re-establishing the national preparedness stores, not just in relation to food storage.

## 4.2.6 Relation to and involvement of other actors

The sixth and final interview topic centred around the municipalities' relation to and potential involvement of other actors in the work to strengthen crisis and/or food preparedness, from the local to the regional and national levels. The local level, for these questions (see Annex 1), also included municipal inhabitants as part of the discussion.

Table 7. A summary of the relation between the municipality and other actors as well as the interviewee's perception of such actors in ensuring food preparedness.

<i>Municipality</i>	<i>Perception</i>
1	Planning for supplying the general public with food during a crisis, from the municipality's perspective, is not a high priority issue before further clarification of the expected levels of preparedness have been made on a national level. The importance each citizen preparing themselves for crises is stressed relative to the municipality's responsibility. A certain rural community is shown as an example of local cooperation. No solid picture of the preparedness level of municipal businesses and suppliers within the food sector exists, and neither is it regulated in public procurement agreements. The Federation of Swedish Farmers is a relevant but not currently involved actor, with the county board also being important in engaging such actors.
2	No clear distinction in laws concerning the ability municipality's ability feed its own citizens in the case of a crisis, or whom that responsibility ultimately falls on. Stresses the individual's role of surviving for at least a limited time on their own, however. Mentions the "just-in-time" principle as an obstacle toward food preparedness within the private sector. The Federation of Swedish Farmers is often involved on a regional level in conversations between municipalities and the country board regarding preparedness. In the up-tick in discussions regarding civil defence during recent years the question of the national actors has been raised further, advancing from the hands-off approach that let municipalities alone manage civil defence issues. Missions now being delegated to them in making inquiries regarding civil defence capacity are appreciated, and the interviewee stresses that this should not be seen as a departure from the autonomy of municipalities.
3	The Federation of Swedish Farmers have regular meetings with the municipality, with established paths for communication regarding civil defence, but not involved in working on food preparedness as far as the interviewee knew. No crisis agreements with private actors, but the dialog with private companies became easier with the onset of the pandemic. The Civil Contingencies Agency needs to be more clear about what it wants to see in regards to civil defence, not just in the form of recommendations or advice but more definitively in terms of clear decisions.
4	No formal responsibility for supplying citizens with food. One week of household preparedness is stressed as being required by the Civil Contingencies Agency, "soon to be changed" from the previous requirement of three days. Visitors cannot expect to be taken care regarding access to food in the case of a sudden crisis. Agricultural businesses and the Federation of Swedish Farmers are natural actors for talking with considering agriculture's importance for the municipal economy.
5	Civilians should be able to survive for as long as possible if they are able to do so. A local council involving e.g. businesses and other actors is in the works, but no official plan to cement such an effort. Better networks among involved actors would allow for stronger cooperation on crisis preparedness. An official plan to prepare municipal functions further is deemed more likely and closer in the future than one to provide for the public in the case

	of a crisis. An information campaign toward citizens is viewed as positive to increase awareness and preparedness in that sense.
6	Only residents within the elderly care system can be guaranteed to be ensured access to food in the case of a crisis. No crisis agreements with private suppliers exist, but discussions on implementing ones have taken place.
7	No rules yet for making the municipalities responsible for protecting citizens in the case of a food crisis. Food business, the county board and other municipalities are being involved in cooperation on food preparedness. A major obstacle is to make citizens interested in working with agriculture and taking over the management of productive land, as this occupation is not very popular. Easier to make a plan for food preparedness for a smaller municipality.
8	Question on whether deals with private food business regarding maintaining food storage is more appropriate compared to spending on publicly owned storage solutions. A return to a model similar to the one previously used by the national government in supporting private businesses and them maintaining food storage would be desired. Educating volunteers in supporting kitchens during crises is also viewed favourably. Citizens on the countryside generally better prepared than city dwellers.
9	Increasing local food production is an explicit goal, with ideas for certain projects to realize that ambition. The Federation of Swedish Farmers is involved in attracting people to work in agriculture. The county board is also involved in a number of ways, for example involving several private actors.



## 5 Analysis

*This section will put the results of the interviews of the previous section under analysis for interpretation. Analysis of the interview themes are here divided into their own chapters, like seen in chapter 4.2, Table 2-7 of the Results section.*

### 5.1 State of municipal food preparedness work

A notable relation exists between food preparedness and the municipalities in the form of planning regarding the municipal management of meal production for schools and systems for elderly care. On this topic the current strategies for how to ensure robust supplies of food vary noticeably between the respondents, although not necessarily correlating to population density or level of urbanization. All the municipalities had some kind of plans implemented and relating to planning for general crisis preparedness, arranged in the form of steering documents, action plans, strategies etc. (see Table 2). Some of the municipalities had sections of those documents dedicated to certain functions of societal importance, including crisis preparedness paragraphs relating to water access as well as emergency power solutions. None of these documents contained any details specifically related to food preparedness.

One municipality mentioned that they had been engaging in so called continuity planning regarding how to maintain their normal services in times of crisis, which related both to the municipal nutritional unit supplying meals for schools as well as for the elderly care system. They mentioned that a recent experience with snowy weather earlier in 2021 raised awareness of limitations to continuous functioning of certain school kitchens as the weather conditions did not allow for municipal chefs to arrive on site as planned. The issue was solved locally, but this incident spurred the municipality to create official plans for how to make these functions operate in times of restricted access to e.g. electricity for powering the kitchens. This could be seen as an example of *recovery* resilience, the weaker form of resilience presented by Boin and van Eeten (2013) based off reacting to a disturbance event and afterwards reforming itself, compared to *precursor* resilience that is of a more preventative character. Apart from the municipality's responsibilities for its own units providing this type of food service, the general public's access to food is not being planned for. The ability of the public to ensure their own short-term supply of food is instead being stressed as necessary for general food preparedness. Current ambiguity and confusion related to what national laws and ambitions as well as regional ambitions *in practice* would require of Swedish municipalities is mentioned as a reason for the current lack of focus on how to safeguard the general population in the case of a food crisis. This factor alone is an important inhibitor to improved food preparedness, as has been noted by e.g. the Swedish National Audit Office (2018). Another municipality mentioned that, at least currently, the elderly care system has been equipped with storage of food items that have been dimensioned to last for three months.

In a different municipality there has been explicit planning regarding the capacity of available so called central kitchens, from where meals are made and distributed to schools and elderly care facilities across the municipality. An example was given as to how the ability to increase meal production capacity in the case of a need for it had been recognized and considered in the development of a new central kitchen, concerning the ability to connect secondary or emergency sources of water as well as backup power to be able to run these facilities. The combined capacity of the central kitchens in the municipality, discounting smaller kitchens available at some locations for either preparation of meals or just the re-heating of meals on-site, was mentioned to amount to more meals per day than there were citizens within at least the main urban centre. The same capacity for producing meals at such a level could not be identified among any of the other municipalities, making that particular municipality unique in that aspect and showcasing signs of *precursor* resilience (Boin & van Eeten, 2013). The same form organization of municipal kitchens in the form of a network of central kitchens was not a common feature of all respondents. The relatively recent establishment of a common organization in that one municipality for the managing of all kitchens gave the ability to manage the

kitchens' capacity more holistically and to prepare for potential crisis situations. This presents a potential strategy for municipalities of, if even possible, centralize and merge their combined operational capacities within e.g. meal production and crisis preparedness planning to coordinate their work together. Different municipalities have the ability to decide for themselves how their systems are to be designed, however.

Other municipalities have not come very far in their own work regarding food preparedness, and Molin and Östensson (2015) seemed to indicate a similar frequency of lack of progress among their interview subjects, which is interesting considering the slight lapse in time that has gone since then. One municipality mentioned that they have not been able to field the necessary resources to put a significant focus on the topic of food preparedness, with a lack of available plans, and the same interviewee stated that more populous municipalities likely have better means to develop strategies and plans to improve on the issue. That interviewee believed that, in relation to other aspects of crisis preparedness, that food preparedness specifically remains lower on the list of priorities. However, the municipality had plans on establishing a sort of local council that would involve private actors including banks, food industry actors etc. to improve the dialog and coordination related to general crisis preparedness. An information campaign had previously been employed to inform the public of what they would need to have stored away in terms of food to be able to manage at least a short-term crisis, but that a more extensive such campaign could become necessary. They mentioned that there were currently no plans to begin planning for how the municipality itself is to ensure a secure supply of food items in the case of a prolonged crisis, especially when it comes to protecting the general public in this regard, lying "several years into the future". Additional funds directed toward this specific purpose are mentioned to be not part of the municipality's current agenda. Plans for protecting their own municipal services that relate to food are however mentioned as being "likelier" to become reality, in comparison, but that establishing larger municipal emergency stores for various food items is not something that they deem likely to happen anytime soon. Connected areas of concern like the availability of emergency power solutions were being worked on as part of the municipality's so called "effect goals".

## 5.2 Importance of agriculture and food business

Certain municipalities mention their lack of agricultural or food business activity, representing a threat to self-sufficiency in the case of a crises that might isolate them or otherwise make regular deliveries of food items from outside their borders more difficult. An aging population among existing agricultural practitioners is also viewed as an issue, with strategies being developed for increasing the attractiveness of the agricultural business. One of the municipalities interviewed mention that a significant amount of agricultural land repurposed for means other than food production for human consumption exist that could be cultivated once again, which connects to their ambition of attracting new citizens that could engage in the agricultural and food sector. A key theme of the so-called regional food strategies, inspired by the national food strategy (Swedish Ministry of Enterprise and Innovation, 2017), is the ambition to increase the competitiveness of Swedish food business as well as to increase the production and sourcing of locally produced foods. Increased sustainability is also a key selling point of those strategies, and a few of the ones relevant to the municipalities that are a part of this study also exhibit explicit goals of improving food preparedness. Eriksson (2018) notes however that significant streams of agricultural inputs from abroad are used to support the agricultural system of modern day Sweden, meaning that simply producing more food locally/domestically as suggested by the national and regional food strategies will not necessarily encourage a more sustainable development.

A couple of respondents mentioned that there are current and future conflicts regarding how land that is or would be valuable for local agriculture should be developed. Growing urban centres were presented as putting such productive lands under pressure for being developed into urban housing, which they deemed would be negative for increasing food preparedness, both from a local and a national standpoint. They did otherwise have major food businesses within their municipalities. This long-term challenge becomes a question of sustainable development, as interests for economic growth

and food production respectively would be opposed, in that sense. Two other municipalities mentioned that they too have major agricultural industries, although without any significant local food business to refine agricultural produce into higher-value products. They, however, did not have the same problem of urban growth threatening to absorb prime agricultural land. These four municipalities together argued that they at least had relatively good conditions for producing enough food to sustain their own municipal operations. The Swedish Civil Contingencies Agency note in their report on “The interests of the total defence in societal planning” (2021) several areas of “public interest” for maintaining important societal functions in for example the municipalities, e.g. functions for food and drinking water (*ibid.*, p. 37). Agricultural land seems to fall under the category of “private interests”, often in the form of private businesses, but they mention that in the case of a heightened state of alert many private interests become public interests as part of the total defence. This makes it “difficult to specify private interests” individually during peacetime (*ibid.*, p. 36).

Two other municipalities were of a more urban layout, and they were characterized by having agricultural or food industry sectors of little significance. These are perhaps the most vulnerable kinds of municipalities in respect to food preparedness, as their resilience in the case of a crisis would in general be quite low based off these aspects alone, with municipal operations being reliant on food suppliers transporting in foods from outside the municipalities’ borders. Those same two municipalities have however developed measures (or are in the process) to improve their ability to produce enough meals for a crisis scenario. Overall, all interviewed municipalities displayed a diversity of conditions relating to agricultural opportunities and availability of food businesses that transcends geographic and demographic characteristics used in the interview candidate selection process, making the picture on this theme rather complex.

### 5.3 Top-down directives and guidance

Several municipalities elevated the issue of unclear guidelines and directives related to what municipalities are expected to achieve in terms of food preparedness, for the purpose of handling even severe crises that may affect the availability of food. It was already mentioned that one specific municipality had intentionally held off on further considering their ability to safeguard its citizens in the case of a crisis due to responsibilities not having been specified far enough. A reason for this acting as a deterrent was that it would involve the allocation of funds for projects related to e.g. food preparedness that would not have clear enough goals and targets for what to achieve, potentially leading to some municipalities doing more than others. For certain municipalities already struggling with funding certain government functions, due to a limited tax base, this is an issue that is highlighted as an obstacle to improving their level of food preparedness. One municipality mentioned that they were receiving special funding from the Swedish Civil Contingencies Agency, which is targeted toward certain projects and efforts that the county board has designated as areas to work on. The allocation of those funds was told to depend on what specific projects the municipality is being involved in. That furthers the point that directives and guidance from higher levels of government need to be clear and targeted toward food preparedness specifically for it to be considered a prioritized issue at the municipal level in relation to general crisis preparedness projects. The same municipality pointed out that a higher prioritization of food preparedness as an issue on the national level, alongside an increase in financial and human resources, would in combination improve the ability to deal with this specific issue “during the coming years”. The Swedish Food Agency and the Swedish Civil Contingencies Agency are mentioned as instances that are mentioned as needing to be much more direct in their relationship with the municipalities and the county boards, being urged to make proper decisions rather than just offering guidelines and management advice. Actors like Swedish Government Official Reports (2021) are just in recent times publishing proposals for how to re-organize the civil defence and existing legal frameworks to manage certain societal sectors like that of food, indicating a certain level of lag in accommodating the support needs of certain municipalities.

Another municipality mentioned that they were awaiting the release of a so called “preparedness handbook for public meals”, referring to meals produced within municipal functions like schools and elderly care. Their thought was that such a guide would help their nutritional unit, of which the

interviewee was connected to, in developing plans for how to run their kitchen units during a period of societal crisis. Nilsson (2010) showed through his research that “the fact that quite a few problems that related to structure were of a very basic organizational nature may partly suggest that the readiness to deal with crises is far from being institutionalized as a common activity in these organizations” (*ibid.*, 93), which seems to hold true even today on the topic of food preparedness at the very least. A different municipality was however of the strong opinion that such guides are not necessary for catalysing work on food preparedness, arguing that getting started is not difficult. If anything, these divergent views showcase a disparity when it comes to knowledge and experience, and possibly personnel and/or financial resources in many cases, for conducting work on improving municipal food preparedness.

## 5.4 Resources and finances

The resource question is also one that is mentioned several times as an important factor for the success of and ability to work on the topic of food preparedness. Food preparedness is frequently described or discussed as a clear subset of general crisis preparedness work, with the degree to which a focus on food preparedness specifically varies widely. One municipality mentioned that, without clear government guidance and goals, other aspects of crisis preparedness including measures to prepare for potential wartimes divert attention and resources from focusing on improving food preparedness. More populous municipalities seem to indicate that “resources”, primarily referring to available personnel, is not currently an issue for focusing on the topic in question. As was mentioned in the chapter 5.1, the merging of several administrative units into one allowed one municipality to pool their resources and work more holistically and with an enhanced focus related to the planning of their central kitchen capacities and contingency measures. This statement came from one of the more population dense municipalities that were surveyed, but when looking toward some of the less populous ones no universal image of available resources being a significant bottleneck for working on food preparedness could be established. It rather seems like the main contributing factor to the ability to invest in work on food and/or general crisis preparedness is the financial constraints, with one small but relatively wealthy municipality showcasing their ability to invest in a food storage for their elderly care function that would last for three months. Other small municipalities were not as well-off financially, inhibiting their planning ambitions. Several populous and well-off municipalities had already started to invest in improving food preparedness capacity. The relative importance of this factor is however challenged by previous research by Nilsson (2010), covering the conception of weaknesses by civil servants and political appointees on crisis management at a selection of Swedish municipalities, that showed “structure” to be nine times as prevalent of a theme as “material and immaterial resources” (*ibid.*, p. 94). This may be explained by the focus on general crisis management, compared to the primary focus on the very specific aspect of food preparedness that was central to the interviews for this thesis project, which led to notable mentions of financial and personnel constraints.

## 5.5 National food stores

The municipalities were also questioned about the idea of re-establishing a national system of stores of various critical resources like food, medicine, fuel, etc. The question was framed in the form of what their views were on this idea, with the Swedish Defence Commission (2017) raising the point that “Certain strategic food stuffs will have to be stored” (p. 5) prior to e.g. a wartime situation, and whether such a system would be effective in ensuring food preparedness today. The responses were mixed, with some municipality representatives being hesitant on taking a stance on or unsure whether this proposition would prove beneficial or not. One municipality mention that such a system on the national level would “of course alleviate” the burden on the municipalities to ensure the food needs of their affected departments and the public. Another one points out that a multi-tiered system of food stores and other critical resources like fuel at both the local, regional and the national level would be required to ensure proper resilience in the case of crises of varying lengths. Studying other countries that have developed major preparedness systems and stores for food is also brought up as being an important factor for creating a picture of what would be required of a similar system in Sweden, meant to ensure secure food supplies for everything beyond a week to a month and beyond. One comment in

favour of food stores and against beyond the local level also mention that “we will never reach the same level of preparedness by simply relying on the market and public procurement agreements with businesses”. A different interviewee was however of the opinion that reintroducing national stores would not be beneficial, with stores at e.g. individual pre-schools serving as more suitable places to create short-term solutions for having access to the most basic of food items in the event of a crisis. Overall, several interviewees were either optimistic or cautiously optimistic toward the idea of re-establishing the national emergency stores, showcasing a fairly prominent opinion of the municipalities. Interestingly, the recently published report by Swedish Government Official Reports (2021) does not seem to indicate an interest or at least a need for re-establishing national emergency stores. A search on the word “lager” (eng. *storage* or *store*) in the document only points to the responsibility of the Swedish regional administrations in regard to keeping sufficient stores of products important for the healthcare care sector as well as making sure to transfer said products where needed within the regions (*ibid.*, p. 371).

## 5.6 Relation to and involvement of other actors

Many of the respondents shared the opinion that civilians should have some basic level of household preparedness related to food, stretching from at least a few days to a week. The interviewees maintained in general that the municipality would ultimately not be responsible for taking care of civilians, both those living in the municipality as well as visitors, in the case of a food crisis of undetermined length. These comments were, on a general level, interpreted within the context of existing relations of responsibility as determined by Swedish law and top-down involvement of government actors. This general sentiment among the surveyed municipalities has impacts on achieving several of the goals for the civil defence listed by the Swedish Government Offices (2020), including “to protect the civilian population”. This raises the question of what needs to be done in practice, from an individual or public standpoint, to improve food preparedness and strengthen the civil defence. There is no clear answer, which has most certainly contributed to this particular stance until one has been elaborated on by a relevant agency. This problem is further made more complex by the Swedish Civil Contingencies Agency’s rather muddled explanation of how responsibility for managing an event shifts from the individual increasingly toward society at large scaling based on the “likelihood” of an event, leading to a separation of events into accidents, crises and war (Swedish Civil Contingencies Agency, 2021, p. 31). Ignoring a potential war scenario, the relation between the responsibility of the individual and society respectively in managing a crisis, representing the middle ground of events between accidents and wars, is therefore not well-defined and may be confusing for a municipality trying to plan for its food preparedness. Risk governance, as outlined by the International Risk Governance Council (Renn & Walker, 2008), can without clarity in the relation between the two sets of actors arguably not facilitate effective management of the risks involved with a potential food crisis.

Several municipalities mentioned that they have either been working with or would view it as likely to work with non-governmental organizations in improving food preparedness. The Federation of Swedish Farmers was a prominent such actor, with that particular organization having a more prominent or fitting role in cooperating with municipalities with significant agricultural industries. Businesses are also mentioned as being important partners in cooperating with municipalities, but with no municipality having any deals with food business regarding food supplies during crisis. One municipality were planning to, in a not too distant future, establish a council of local businesses to discuss matters of crisis preparedness, a project that got delayed due to the onset of the Covid-19 pandemic.

## 6 Discussion

*This section will discuss the results of the interview study and the analysis based on said results, relating these to research and government documents on the topic of food and/or crisis preparedness. Major points are identified and contrasted with official goals and responsibilities as well as historical and contemporary contexts of Swedish food system management.*

### 6.1 Variations in results

The interview study has highlighted the variation in measures taken to advance food preparedness so far, in relation to existing national ambitions and laws regarding total defence and situations of heightened state of alert. Some municipalities bring special attention to the lack of clear decisions, goals, directions etc. from the level of national agencies and the Swedish Government in determining what is to be expected from the municipalities regarding a basic level of food preparedness that they argue needs to be set commonly for all 290 municipalities. These arguments can also be seen as part of a series of critiques offered by the Swedish National Audit Office (2018) regarding national food and pharmaceutical preparedness. The role of several actors, not just the municipalities, in handling crises and contributing to civil defence were mentioned as lacking clarity even then, and judging by the testimonies presented during the interviews for this thesis there is still a general desire at the municipal level for increased clarity and decisive decision-making. Existing laws regulating crisis preparedness are commonly viewed as needing further explanation of concrete responsibilities, to create a homogenous understanding of what it means to be prepared and what the national level actors want to see in terms of results at the lowest government level.

Despite these obstacles to continued work and focus on improving food preparedness a few municipalities report somewhat decent progress to examples of significant planning measures taken to prepare for potential crises and disruptions to the supply of food at the local level. Certain municipalities show that they already have developed plans, within the scope and context of their own managerial responsibilities, for either managing a general crisis or one that also has a direct or indirect impact on local availability of food items. Other municipalities show that, in some cases, no plans have been developed within this area due to a variety of reasons. This presents a problem as, given this heterogeneity, all municipalities of Sweden may not be expected to properly manage a food crisis when one that has a severe impact nationally materializes. The limited sample of municipalities that were chosen for this study does not tell the state of food preparedness for the entirety of Sweden, but the selection process was deliberately designed to encompass a variety of geographic and demographic circumstances, covering all eight so called NUTS 2-level regions of Sweden as well as all nine official categories of municipal classification established by the Swedish Association of Local Authorities and Regions (2017). This gives somewhat of an idea of how representative these findings would be if they were to be generalized for the country as a whole, perhaps as part of future reforms intending to reinvigorate the Swedish civil defence and increase the rate at which municipalities are strengthening their level of societal resilience. The Swedish National Security Strategy, for example, speaks of the “robust provision and protection of essential services is vital to the survival of the population and for our society to function”, with “access to drinking water and food being of national interest” (Prime Minister’s Office, 2017, p. 14). That is, however, merely a goal-oriented document with no concrete proposals or measures.

### 6.2 Municipal opinions on national-level responsibilities

What has also become evident is that the views at the local level of what degree of involvement the national government should have in the matter of ensuring food preparedness, on top of municipal level measures, vary. One municipality that declined an interview request, a fairly population dense one within Stockholm county, stated in their response that “I believe most municipalities would like to see the State take a greater responsibility regarding these types of issues”. There is not a common view of the effectiveness, and subsequently the usefulness, of re-establishing national emergency stores as a means to bolster Sweden’s total defence capacity. What a contemporary system of national

emergency stores would need to look like and how to organize it, given current market conditions, is hard to determine. The major issues of low national self-reliance on food, high reliance on various inputs to make the food system function as is, as well as the established market principle within the food industry of “just-in-time” makes the Swedish food system particularly vulnerable in the event a trade disruption of World War II magnitude. If re-establishing national and/or regional as well as local emergency stores were to be the only major reform of the food system the capacity of said stores would need to be dimensioned to accommodate for the need for food, fuel etc. for a set amount of time, based off current patterns of reliance of domestic versus imported products.

### 6.3 Historical versus contemporary contexts

Lindberg (2008) explains how Swedish agricultural policy came to change in 1990 with his piece titled “Political change and the importance of ideas”, shifting away from a policy of once wide-spread state involvement in and control over the Swedish agricultural sector. This system was a remnant from the increasingly protectionist politics of the 1930s (*ibid.*, p. 33 & 35), based on great subsidies of agriculture with the Federation of Swedish Farmers playing a major role in upholding that system. Similarly to how Sweden’s civil defence apparatus was demolished with the entry into the European Union in the mid-1990s, the former system of agricultural policy became subject to debate over its costs and the government’s major role in the sector. Deregulation of the industry became inevitable as a number of factors coincided, including decreasing support for the Swedish Centre Party among the agrarian voter base (*ibid.*, p. 34) along with moves of the Ministry and the Minister of Finance to reform the system. The latter came to be after the Social Democrats returned to power during the 1980s, a time when state finances were hurting (*ibid.*, p. 33) and their political allies shifted toward consumer interest organizations rather than the Centre Party and the Federation of Swedish Farmers (*ibid.*, p. 34). The stimulation of over-production within the agricultural sector did however help Sweden to survive the Second World War better than it did during the First World War (*ibid.*, p. 36). Relating this process of political change to more recent political developments, the decision to reinvigorate the national system for civil defence came about in 2015, not long after the Russian annexation of Crimea in 2014 that sparked a change in Sweden’s view on regional security (Swedish Defence Department, 2020). You also have the establishment of the 1947 goals relating to agriculture, one of which was the so called production goal, but unclear formulations contributed to the inability to fulfil them (*ibid.*, p. 37)... much like the views of several interviewed municipalities on civil defence goals related to food preparedness. Lindberg’s argument that novel ideas, if spread by a few carriers of those ideas, can induce radical change seems to hold in some ways even to this day.

From the time of Molin and Östensson’s study of municipal food preparedness (2015) not much in terms of general findings seem to have changed when compared to this study. The overarching conclusions of their interviews mostly remain, i.e. the prioritization of other administrative tasks with a lack of clarity regarding the responsibilities bestowed upon the municipalities by law and non-legal ambitions, financial and resource constraints affecting what the municipalities are able to do, etc. This study therefore seems to remain in line with the status in 2015, but perhaps with a more noticeable recognition of the issue which was evident even among most of the municipalities that turned down the interview offers but yet framed the topic as “important”. This study was also explicit in its research approach to diversify its representation of municipalities, to improve upon the preceding study of Molin and Östensson (2015). Given the qualitative nature of the method used to gather data there is limited ability to generalize the results of this study, but the greater geographic diversity in the sample especially makes any conclusions more representative of the country overall. This adds to the knowledge created through the preceding study, creating a wider understanding of current levels of food preparedness and helps bring out additional contrasts that might inform policy makers locally, regionally or nationally. A bigger sample of municipalities could have been interviewed for this thesis, given the additional individuals who accepted the offer to be interviewed, but for reasons of time a sample size similar to that of Molin and Östensson (2015) was chosen. Interviews with the full 32 municipalities would have allowed for including potential quantitative data collection and statistical analysis as part of the methods, which would have made proper generalization possible.

## 6.4 Recommendations for future research

Based off this study into food preparedness, the next step for future research into this topic on municipal food preparedness would be to interview additional municipalities, either in the short-term or closer to the end of the current total defence period of 2021-2025. A study scheduled for 2025 or 2026 could also focus on analysing any documents and strategies at the national or regional levels that may appear during the coming years pertaining to crisis and food preparedness. Given the comments over municipal frustration about indecisive decision making higher in the chain of government, a probe into the process of developing clear guidelines at the end of this total defence period would be valuable in determining the pace at which national agencies have been progressing in their own work.



## 7 Conclusions

*This section will present the major conclusions of this thesis, both relating to the contents of the research as well as the impact and contribution of this thesis to the research field of crisis and, in particular, food preparedness within the context of Sweden.*

The purpose of this thesis project was to survey the state of current food preparedness in a selection of Swedish municipalities. Prior to this process an initiatory study into the administrative context of Swedish total and civil defence was undertaken, focused on but not restricted to the issue of food preparedness. A series of laws and national ambitions were found to govern the responsibilities of municipalities in contributing to civil defence and to be prepared in the event of a crisis, during either peace, heightened state of alert or wartime. As recent as 2015 the Swedish Government decided that the civil defence system, part of the total defence system that also concerns military defence, was to become reinvigorated after its abandonment in the 1990s. Despite these laws and ambitions, many Swedish municipalities are experiencing an inability to live up to such responsibilities due to a variety of factors. Unclear guidelines and definitions of what needs to be achieved to fulfil such responsibilities, in this case related to food preparedness, and in some cases the line where those responsibilities end is not well-defined either. There seems to be an administrative divide between e.g. those managing municipal services like schools and elderly care systems and those setting the agenda for crisis preparedness work at higher decision making levels.

Certain municipalities, however, have been able to make some progress, with an apparent second divide between wealthier and less wealthy municipalities that seems to be the major factor in determining ability and capacity to prioritize working on food preparedness. This warrants an effort from national level actors, i.e. the Swedish Government, the Swedish Parliament as well as government agencies, to clarify the apparent issues pertaining to the lack of a common understanding of municipal and other societal actors' responsibilities for crisis and food preparedness and how to fulfil them. Then, if instructions for how to prepare themselves become clearer, the issue of financing projects related to planning for food preparedness must be resolved, as some municipalities are seemingly constrained financially as well as by available personnel resources. Increasing financial support to municipalities with such conditions would then need to be considered if the goals of the civil defence are to be realized, weighed against the specifics of what is expected of them of course. There are projects under way to remedy the responsibility divide, for example involving changes to current laws as well as development of tools for helping staff improve the preparedness of their respective units connected to municipal meal services.

This thesis prides itself on having surveyed municipal food preparedness states and perspectives from a variety of municipalities and from talking to officials with differing roles within their administrations. The municipalities interviewed were sampled using a carefully designed selection process, one that favoured geographical and demographic diversity. This is a strength compared to a previous study on the subject made in 2015, one that asked very similar questions to the interviewees of a less geographically diverse set of municipalities. The increased diversity helps to improve the generalizability of the findings, although the sample of nine different municipalities is small compared to the in total 290 ones in Sweden. A degree of care should therefore be taken when interpreting these results and when trying to extrapolate to the wider national context. If anything, this thesis will provide some context about the performance of other municipalities to those that participated in the interview study, knowledge that can be absorbed and potentially spread among municipal colleagues within their respective administrations as well as outside of them. Nevertheless, the thesis creates an image of the state, challenges and opportunities for specifically working on the topic of food preparedness within wider crisis preparedness efforts. Given the decentralized role of government in this aspect of Swedish government responsibilities it is important to understand how performance and progress where the work is happening (or not happening) at the local level relates to ambitions set at the national level. Future research could focus on further surveying municipalities, most appropriately when the Covid-19 pandemic has settled sufficiently in regard to municipal crisis preparedness management efforts, or perhaps focus on the national level primarily and its relation to lower levels of Swedish government.

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# Annex 1: Interview guide

## Part 1 – Interviewee introduction

- Name
- Title
- Their place in the organization
- Role/function/responsibilities
- Background
- How long they have served in the organization

## Part 2 – Municipal characteristics related to food and food preparedness

- What are the major characteristics of the food supply in the municipality?
  - The interviewee's own department
  - The population as well as others visiting the municipality
  - Any specific differences in the food supply that sets it apart from other municipalities?
    - Major food businesses or agricultural sector?
- How do you perceive the municipality's food supply? (exposed, exceptional, vulnerable, safe)
- Have there been any food supply disruptions?

## Part 3 – Work with and progress on food preparedness

- How would you describe the progress of your municipality with work relating to food preparedness?
  - Is the municipality working explicitly with food preparedness?
- How would you describe the progress of *other* municipalities within the same region/county?
  - What makes your municipality similar/different?

## Part 4 - Conditions for conducting crisis preparedness work specifically related to the municipality's supply of food

- Has the Covid-19 pandemic affected the municipalities work in general or specifically related to food preparedness?
- Does the municipality have a public responsibility for ensuring a functioning food supply for its inhabitants?
- Does the municipality have such a responsibility for anyone visiting the municipality?
- What is being done to fulfil such a responsibility? (Is there enough food for everyone? Are there any official plans for how to supply certain goods?)
- Are potential disruptions to the food supply being recognized in planning?
  - Of the municipality's own organization
  - By other actors? (e.g. through agreements with suppliers)
  - If no...
    - Is there a need to work on this issue?
    - Why not?
    - Why is there no work being done regarding food preparedness?
    - What is hindering you from working with this issue?
  - Well, partially...

- In what way are you working on food preparedness?
- Does it involve supplying all groups of society?
- Why not?
- What is hindering you to move forward?
- Yes, we are...
  - In what way are you working on food preparedness?
  - Does it involve supplying all groups of society?
  - What obstacles have you encountered?
  - What difficulties are you seeing?
  - How did you get to this point?
  - Important conditions for letting you work on this issue?

**Part 5 – Challenges and opportunities for achieving robust food supply or working with food preparedness**

- Geography
- Demography
- Municipal economy
- What is the culture within the municipality (public/administration) related to crisis preparedness in general?
  - Any military establishments?
  - Networks/Organizations related to food preparedness?
- What kind of support would you require to work with/work more with these issues?
  - From government agencies?
  - From private actors?
  - Other kinds of support?

**Part 6 – Anything else?**

- Anything important that you wish to mention or would like me to question you about?

(Note: Read Molin & Östensson (2015), found in the reference list, for the interview process and ideas that were the basis for the process used as part of this thesis.)



## Annex 2: Respondents

<i>Municipality</i>	<i>Participating roles</i>
Haninge	Strategic nutritionist, nutritional science intern
Varberg/Falkenberg	Security developer
Trollhättan	Security coordinator, development manager
Trelleborg/Vellinge/Skurup	Civil defence coordinator
Sollefteå	Preparedness coordinator/Data privacy protection
Heby	Preparedness coordinator/Security protection chief
Smedjebacken	Chief of nutrition, security investigator
Borgholm	Development strategist
Robertsfors	Security coordinator

