Technological and social adaptation to COVID-19: Food for Vulnerable Urban Groups in Six Global Cities

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This report outlines the results from the research project Food for Urban Life and Localities (FULL) funded by Formas (2020-02864). The research set out to learn how COVID-19 response strategies in six cities (Stockholm, London, Wuhan, Singapore, Sydney, and Seoul) have facilitated access to food for vulnerable groups and how new food supply solutions have emerged through social and technological innovations. This report presents the case of each city in turn and pauses on the role of community-based organisations, ad-hoc community initiatives and municipalities during the COVID-19 pandemic. The report provides a detailed discussion of local or community-level responses in cities that aim to provide access to food through social and/or technological innovations. The lessons learned are important for the Swedish context in the case of similar events that challenge local access to food. The research collected data through qualitative and quantitative methods, and also made use of the breadth of online data sources in response to COVID-19 restrictions on free movement and travelling. The overall finding is that in situations such as the COVID-19 pandemic, local access to food is extremely challenging and cannot be addressed by existing welfare or state arrangements only; civil society organisations and voluntary community organizations (VCOs) step in to fill the gap in public provision; and the stricter the lockdown, the more dependent on civil society response urban areas and communities were.

Keywords: cities; food; vulnerability; COVID-19; civil society; public policy.
Food for Urban Lives and Localities (FULL) focuses on the role of digital technology and social adaptation in assuring food security and how community initiatives and municipalities have responded. FULL aims to comparatively analyse urban community responses to prepare Sweden and other countries better for similar events that challenge local access to food. This research looks at five cities: Stockholm, Seoul, Sydney, London, and Wuhan.
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EXECUTIVE SUMMARY

As COVID-19 enters a phase of becoming endemic, this report aims to assess how different cities have managed different issues linked to the pandemic in straining access to food among vulnerable urban groups such as older people, people with disabilities or underlying health conditions, single parents, low-income households, ethnic minorities, and migrants. This report outlines the results from the research project Food for Urban Life and Localities (FULL). The research set out to urgently learn from how different COVID-19 response strategies, as a paradigm shift, have stimulated new food supply solutions through social and technological innovations for vulnerable groups in London, Seoul, Singapore, Stockholm, Sydney, and Wuhan, and whether these practices were socially sustainable. In each case study, we have researched and analysed the role of social adaptation in assuring food security for these groups in a pandemic, and how community-based organisations, ad hoc community initiatives, and municipalities have responded. The report provides an analysis of urban responses at the local and/or community level that provided food aid through social and/or technological innovations to better prepare Sweden for similar events that challenge local access to food. This research looked at six cities: Stockholm, London, Wuhan, Singapore, Sydney, and Seoul, taking account of various levels of COVID-19 responses and urban form typologies. The research has collected data through conventional means as well as from tapping into a range of online data sources and using combined analytical methods designed to adapt to the past COVID-19 restriction of travelling.

There are two overall takeaways from the six case studies:

1. The state will struggle on its own to meet the food needs of vulnerable groups and will have to depend, in varying degrees, on the work, time, and resources of civil society.

   Urban food governance implies multi-sectored and multi-level policy thinking whereby multiple actors are involved. In the beginning of COVID-19, London relied mostly on its existing governance structures to monitor the impact of COVID-19 on food supply, to then distribute food and financial support, and share resources across its territory. However, novel organisations and policies quickly emerged to address gaps in access to food. The responses to COVID-19 regarding access to food in London have demonstrated how community initiatives, such as third sector organisations, volunteers, community groups, and local government, worked together to tackle food insecurity using structures and creating disruptive governance structures. This produced governance pressure from the bottom, which has made a more proactive local government working towards integration across sectors and administrative boundaries to avoid duplication of resources, to make local action prosperous, and develop more holistic solutions to access to food in case of emergencies. (Parsons et al., 2021).

   However, at least two challenges remain: integration across urban policy sectors and participation at the community level. We can see that in cases such as London that community-led place-based responses to food insecurity are both positive, by contributing to the democratization and politicization of food policy, but also negative, by reproducing existing inequalities and legitimizing welfare withdrawal. We can see that in places with a harder lock down, such as Sydney, that lockdowns increased the dependence on civil society, but it also led to integration of both state, civil society, and the market. As an example, Food Bank and food NGOs (charities) adapted their businesses to meet greater demands, but the supply of volunteers dropped during periods of lockdown in Australia. This led to the Australian government...
actively nudging and regulating private businesses to work with Foodbank, NGOs, and civil society, to curb predatory business practices and, to some degree, invest some funding to secure a special food supply, although it was criticized for being insufficient.

2 A stricter lockdown leads to more dependence on civil society
COVID-19 has impacted all aspects of the food supply chains by affecting food availability, accessibility, and affordability. Wuhan was the first city hit by the virus and it experienced the strictest lockdown. A distinctive challenge in the full lockdown was that food could not be delivered to consumers directly, even with the well-developed digital economy. It was a disaster relief situation in which everyone was vulnerable if there was no food delivered to their door. The city’s healthcare system was completely overwhelmed whereby people with chronic diseases or other emergency situations did not have access to medical services. In addition, vulnerable urban groups could not get the care needed, as these groups received private care services when there was no lockdown and, during the lockdown, care support could not reach them. In China, the unexpected disruption in the food logistic system caused by COVID-19 required urgent responses to the food supply, otherwise, the strict lockdown would not be enforceable. The policy reaction focused on how to get the food delivered to every door. Therefore, the logistic chain was extended inside the residential estates to provide food to everyone during the lockdown. In addition, the governing structure had to change throughout the pandemic, and Wuhan demonstrated that collaborative governance can be formed and adapted in an emergency in Chinese cities despite the tight schedule (Li et al., 2022). The city struggled at first with community support for people with physical disabilities where some cases had tragical consequences. The policy response first after some of the negative impacts were realised. We can see, on the other hand, that in a country such as Sweden, which had no real lockdown, that there was far less integration of civil society into the overall strategy, which left VCOs and civil society to fill the potholes of groups who could not access the normal welfare. Rather than looking for financial support from the state, VCOs relied on community actions, volunteers, and organizing donations. This financial independence allowed them to freely launch and adapt their programmes to emerging support needs. In addition, it is important to highlight the qualitatively indispensable role of VCOs in welfare provision vis-à-vis the state. The Stockholm case shows that community welfare is done on a rather formal basis, with VCOs acting as a “hidden” complement to the for-granted government welfare.

In the following sections, we start by presenting the background of the FULL-project and the importance of studying urban responses to guaranteeing food security at times of crisis. Second, we provide a comprehensive review of the research literature on issues of governance, and how these issues relate to food security and different stakeholders working with food issues. As we build on qualitative data such as interviews and documents, the following methods section stakes out selection criteria, limitations of this study, and a discussion on the methodological considerations taken during the study. Thereafter we present the six city cases in-depth before moving to a discussion where we present recommendations for future food policies.
1. Background

This report focuses on presenting different cases (Stockholm, London, Wuhan, Singapore, Sydney, and Seoul) of the role of social adaptation in assuring food security for these groups in a pandemic and how community-based organisations, ad hoc community initiatives, and municipalities have responded. The report provides an analysis of urban responses at the local and/or community level that provided food aid through social and/or technological innovations to better prepare Sweden for similar events that challenge local access to food. This research looked at six cities: Stockholm, London, Wuhan, Singapore, Sydney, and Seoul, taking account of various levels of COVID-19 responses and urban typologies. The research has collected data through conventional means as well as tapping into a range of online data sources and using combined analytical methods designed to adapt to the past COVID-19 restriction of travelling.

As cities continue to grow at a high rate, so does the need to ensure food security during times of uncertainties. According to the UN, 60% of the global population is set to live in cities by 2030 (UN, 2020). This calls for a need for food systems to become more efficient in how food that is healthy, available to all, meaningfully connected to local contexts, and is environmentally sound, is produced, distributed, and consumed (Barthel and Isendahl, 2018; Kaiser et al., 2021; Lim, 2014). Emerging urban debates on COVID-19 highlight how urban density is currently seen as problematic when it comes to pandemics and social distancing for at least three reasons: it assists transmission (the spread); it hinders response (social distancing, lockdown); and it makes it harder to return to normal (phasing). We can see that some urban areas are hit harder (such as marginalized suburbs of larger cities), which will have an impact on how welfare services are provided (Florida et al., 2021).

It is of particular interest to look at vulnerable communities in these areas, as COVID-19 has had different impacts on access to food and food services. With supply shortages, restriction of movements across cities and country borders, and a curtailment of physical interaction, the COVID-19 pandemic has highlighted the vulnerabilities of global and commercialised food chains (Batini, Lomax, and Mehra, 2020). COVID-19 has also completely reshaped the food system and “how people interact with their community food environment” (Haynes-Maslow et al, 2020, 197). The pandemic has rendered inequalities in access to healthy food even more visible when comparing different urban areas, neighbourhoods, and communities, by overly affecting low-income and ethnically diverse communities.

The literature on community response to disaster is plentiful and offers some insights into how communities respond to hardship: they are often caught unprepared, even in the wealthiest countries (Shannon, 2015). Hence, they need extra training (Newport and Jawahar, 2003), strengthening of community activity (Newport and Jawahar, 2003), and networks of disaster relief (Day, 2014) to become resilient.

Communities do not act in isolation, and they represent only one type of “institution” that wires the wider governance framework of a city. Apart from formally organised community governing bodies, private and non-government organisations, there are also residential community-based organisations, and “pop-up” community initiatives with little or no formal status. In terms of food supply, this can include food banks/soup kitchens, street groups supplying the vulnerable, local home meals services run by volunteers, distribution of produce from allotments, etc. Communities can also be defined as the “soft” infrastructure of cities, as opposed to the “hard” infrastructure represented by local/city government (Healey,
The integration between communities and local government is key to good governance processes, and collective action is seen as the gel that brings that together (Cars, Healey Madanipour, and De Magalhaes, 2002). These are perspectives that have been missing in the Swedish strategy, as community is seldomly used in the political discourse, and we argue that Sweden can learn about this interaction in Stockholm and other global cities to create better integrated strategies to cope with events such as pandemics.

1.1. Aims of the report
The aim of this report is to document the research project Food for Urban Lives and Locality (FULL) funded by a one-year Formas grant between 2021/2022.

The report can be divided into five main sections. The introductory section outlines the general objectives of the research and the key questions of this study. This is followed by a second section consisting of the literature review. The literature review starts with an analysis of “the whole-of-government-and-whole-of-society approach”. The literature review will then explore food policy, and new configurations of urban food governance in cities that are experimenting with community-based approaches to improving food access in cities by relying on bottom-up community involvement. This will lead to the final part of the literature review, which discusses the role of voluntary and community-based organisations (VCOs) in food relief during COVID-19. Then, the third section of the report outlines our research methods, before moving to the fourth section, which outlines the case study analysis, examining how the response strategies of Stockholm, Singapore, Seoul, London, Sydney, and Wuhan to COVID-19 stimulated new food supply solutions through social and/or technological innovations. Finally, the last section of the report summarizes our main conclusions and provides some key recommendations for future policy.

The initial research set out to discuss what Stockholm can learn from five other global cities (London, Wuhan, Singapore, Sydney, Seoul) and how they have rose to the challenge of food access during COVID, both technologically and socially, and especially in relation to vulnerable groups such as the elderly, people with disabilities or underlying health conditions, single parents, low-income households, ethnic minorities, and migrants.

In particular, the overarching aims of the project were:

1. to urgently learn from how different COVID-19 response strategies, as a paradigm shift, have stimulated new food supply solutions through social and/or technological innovations for vulnerable groups in London, Seoul, Singapore, Stockholm, Sydney, and Wuhan (the cities).
2. to analyse whether these practices and solutions to food insecurity for urban vulnerable groups and communities were socially sustainable during the pandemic responses.

In order to achieve these search outcomes, the present research focused on two key research questions:

**RQ1:** What are the COVID-19 pandemic response strategies in the five cities and what are the resulting vulnerabilities in terms of food access?
**RQ2:** How do the five cities use technological and social adaptation to cope with the challenges imposed by the COVID-19 crisis in the five cities?

Overall, the report uncovers and reflects on the challenges experienced by community actors
in these five global cities. We do so by contrasting Wuhan, in China, which enforced a strict lockdown, with the five other cities: London, Sydney, Seoul and Stockholm. We argue that Stockholm (and Sweden) could learn important lessons from the other five cities and use the case of food supply and access to understand implications at local/community, but also strategic, level.
2. State of the art: governance, local communities, and urban food

The following section provides a comprehensive overview of the scholarly debate on issues of governance, as well as on the role and importance of local communities. Our research intends to bring some insights into how government and society are inextricably and holistically involved in policymaking efforts on a multi-level governance basis. These interconnections are evidently visible on how cities function and regulate specific policy fields and how they develop their governance configurations. Food policy, which has only in the last few decades become part of cities’ policymaking remits, is a clear example of what we will consider as a “whole-of-government and whole-of-society” approach. This notion will be the first step of our analysis, which will then move through the concepts of governance, how governance is carried out at the urban level, and how it has adapted to the emergence of food-related policy interests in cities, giving space to local communities to be involved in policymaking and to develop community food security responses, especially since the onset of the Covid-19 pandemic. Our study ultimately aims to explain how social welfare, urban policy, and public health are intrinsically connected when it is necessary to ensure food security in cities and when urban food systems are severely disrupted, as during the Covid-19 pandemic.

2.1. Whole-of-government vis-a-vis whole-of-society

The whole-of-government and whole-of-society refers to government and non-government stakeholders working together to deliver the intended policy outcomes. However, this notion does not come without shortcomings. It is not easy to ensure decision-making frameworks where all stakeholders – both governmental and non-governmental – are equally involved and represented.

The whole-of-government first appeared in the 1990s to suggest that government departments need to overcome departmentalism and collaborate to produce consistent policies for complex policy issues (Webb, 1991; Eddington and Eddington, 2010; Lagreid and Rykkja, 2015). It promotes sharing resources, information sharing and joint decision-making. There needs to be an overarching institutional structure to allow cooperation to be beneficial to all involved, and, from the perspectives of government service users, to minimize duplication and simplify procedures.

A whole-of-society approach enables the integration of stakeholders outside the government sector (Brunk, 2016; Papademetriou and Benton, 2016; Appleby, 2020) into the whole-of-government approach. The idea is that it is not sufficient to have the whole-of-government approach only (Domicelj and Gottardo, 2019). The interests and perspectives of diverse civil society sectors need to be taken into account (Schirch, 2012). More specifically, it is a multi-stakeholder approach where actors, including civil society, business and government, participate in a meaningful way to achieve the desired outcomes (Dubb, 2020).

The whole-of-society shifted the focus from intergovernmental relations to intersectoral relations. However, in practice, the whole-of-government and whole-of-society are often put together. On 21 February 2018, Amina J Mohammed, the deputy secretary-general of the UN, suggested that a whole-of-government, society approach is essential to achieve Sustainable Development Goals (Mohammed, 2018), a set of ambitious policy goals which would be a complex and complicated task for any country or region to complete. This is probably meant
2.2. Governance: changing the way of governing

The whole-of-government and whole-of-society approaches fits well and runs parallel with debates about governance and how governments today work and interact with the private sector and civil society actors at any level of decision-making. For instance, governance has become one of the most common notions in the social science literature (Ansell and Torfing, 2016, 2) indicating the shift from a Westphalian system of governing based on sovereign national states and a top-down administrative apparatus with a clear hierarchy of authority (Kennett 2008, 4) to more open public decision-making processes involving a wider range of actors and interests from different levels and policy fields. This interest in governance surged in the 1990s and has grown ever since following the “weakening of the state-centric view of power and societal steering” (Ansell and Torfing 2016, 2).

According to Kennett, “with the change from government to governance the governing administration is now only one player amongst many others in the policy arena” (Kennett 2008, 4), making the boundaries between the public, private, and civic sphere more blurred. Nonetheless, Turcu and Gillie explained how the process of governing now incorporates both the concepts of government and governance (2020, 67). In particular, if government still refers to the institutional structure established to rule, and is based on a hierarchal set of policy objectives, governance indicates the network of actors able to influence that institutional structure and its decisions (Turcu and Gillie 2020, 67). Therefore, governing has now transformed in a more distributed process, “engaging many stakeholders from different sectors and government levels” (Ansell and Torfing, 2016, 8).

According to Peters, informal institutions are those structures which “represent stable patterns of interactions among a number of organizations, institutions and even individual actors in both the public and private sector. These structures would meet at least a minimalist definition of institution by having patterned interactions over a period of time” (Peters, 2016, 316). Therefore, the informal character of the institutions refers mainly to the absence of formalized structures even in the presence of continuing patterns of interaction (Peters 2016, 317). Peters also explains how there might be different forms of interactions (either effective or ineffective) between formal and informal institutions, which ultimately depends on whether their goals are convergent or divergent (2016, 318). Similarly, another distinction has been made by Healey’s distinction between hard and soft institutions. Here, the quality of governance
depends on the level of integration of these different sets of institutions (Turcu 2016, 895).

Accordingly, providing a definition of governance may be difficult as it can either include or exclude too many elements; it can be too narrow or too broad. However, governance is part of the governing process which creates the prerequisites for current decision-making and collective action; while government refers to the institutional arrangement or structure which regulates the process (Turcu and Gillie, 2020, 67). Governance “enacts governing”, establishing connections and networks, producing knowledge and influences, involving various actors, levels, and spatial areas. Therefore, as Ansell and Torfing suggest, governance represents an interactive process of steering the society and the economy through collective action to reach collective negotiated objectives (2016, 4).

Among the other factors that led to the so-called governance revolution, globalization played a key role by reducing the political and economic power of the state so that several scholars defined this process as a “denationalization of statehood,” “de-stratification of politics,” or “the internationalization of policy making.” (Jessop 2002). Similarly, the processes of privatization and deregulation of public services and public administration, following the principles of new public management, produced new alternative forms of service production and provision based on closer cooperation between private business and governments (Pierre, 2011, 21).

Also, Rhodes states that the shift to governance dispersed the power of the central government (1997) and saw the emergence of “differentiated policy” (1997). Indeed, “differentiated policies,” meaning the fragmentation of the policymaking process across a wide range of actors, levels and influences (Rhodes 1997), require a new form of coordination which occurs within networks (Kennett, 2008, 6). Hence, policy networks are composed by actors who may change depending on the type of interactions and circumstances that the policy itself requires. The idea behind it is to provide more knowledge to the policy process as “no single actor, public or private, has all the knowledge and information required to solve complex, dynamic and diversified problems” (Kooiman, 1993, 4). So, new actors emerged or are now relevant to the policymaking process at any level, from private companies, non-governmental organizations, to social movements.

Globalization shaped new forms of global governance involving international corporations and supranational organizations along with national states in decision-making. At a more local level, “the proliferation of NGOs and their increasing visibility in world politics and policy has also been promoted and reinforced by the rhetoric of decentralization, local participation, self-help and partnership which has, in turn, contributed to the development of new collaborative forms of governance” (Kennett, 2008, 8).

Nowadays, “cities and regions are increasingly expected to be more self-reliant and less dependent on central government support; and top-down hierarchical control is evolving into a division of labour between cities, regions, and central government” (Pierre, 2012, 104). In particular, cities are increasingly relying on transnational networks to increase their capacity to address challenges that cannot be met by relying on purely local responses. And the “growing disjuncture between the increasing need for advanced knowledge and information on the one hand and the capacity of the local state to create and sustain such expertise on the other” (Pierre, 2019, 106) has led cities to cooperate among each other in a wide range of
policy fields including policies aimed at improving food access and security (e.g. the Milan Urban Food Policy Pact, which is an international agreement on urban food policies signed by over 200 cities from all over the world). So, multi-level governance and networks offered cities an arena that is both competitive and collaborative to provide responses to more-than-local challenges. The more openly a city is organized and involved in political networks, the more likely it is to be involved in multi-level governance experiments (Peters and Pierre, 2012, 11). So, it comes with no doubt that multi-level governance has enabled cities to open new transnational spaces to pursue policy learning and knowledge building (Pierre, 2019, 103).

2.3. Urban governance and politics

In the previous section, the notion of governance and how it changed the idea of government without ultimately substituting it has been explored. The section touched on how governance tends to be a multi-level process which fits better the very regional, urban, and local levels of government which are gaining increasing autonomy from top-down influences. This section therefore examines how urban policy is ultimately embedded in, and the result of, existing urban governance frameworks.

The notion of urban governance developed from studies on local government (Ansell and Torfing, 2016) and refers to “the formulation and pursuit of collective goals at the local level of the political system” without making any “prejudgement about which social actors are most central to the pursuit of collective goals” (Pierre, 2012, 2). Differently from cases of national governance, cities have traditionally been more entrenched in a “web of institutional, economic and political constraints which creates a set of complex contingencies in the process of governing” (Pierre, 2012, 2).

However, research on local governments initially tended to follow an institutional approach to city politics and administration without considering “agency or behaviour which institutional arrangements incentivize” (Pierre, 2016, 478). Here, local government was considered as able to accomplish two main tasks: offering spaces for democratic debates and at the same time delivering public services. When urbanists started to be more interested in the sociological aspects of local government, a new paradigm emerged, mainly in Europe, under the notion of urban politics. The “urban politics” paradigm was less interested in local institutional structures and more focused on the policies implemented by cities and the politics behind decision-making. Therefore, social involvement and elite or pluralist models of urban democracy started to be taken into consideration. In the 1990s a gradual shift towards governance occurred and the conceptualization of urban governance followed the increasing need for transparency and greater social involvement in decision-making processes at the city level. Indeed, studies on urban governance are more interested in looking at how cities are governed than what they govern (Teune, 1995, 16).

As Pierre argued: “urban politics in many countries has been now gradually turning towards urban governance” (Pierre 2011, 5) and debates on urban governance interested several dimensions of urban politics. In particular, urban governance “has been seen as an alternative lens through which urban politics can be understood” (Pierre 2012, 14). This is based on the idea that local government is not alone in the decision-making process, but it can refer to a wide range of other actors. Thus, urban governance “helps conceptualize what appears to be the practice of urban politics and leadership: to seek coalitions and cooperation with other
resourceful players in the local community” (Pierre, 2012, 14). Urban governance is also useful from a theoretical standpoint to explain and describe the complexities of current local government organization.

2.4. Governance at the local level in the city

While the previous section reflected on how urban politics is actually framed around the dynamics of urban governance, this section aims to narrow down its focus to the actors involved in political processes at the local level. Thus, the emergence of new governance frameworks has expanded the plethora of actors involved in policymaking at the urban and local levels. These changes, however, do not exclude an institutionalist view, as urban governance processes can still be identified as the result of distinctive institutional frameworks.

Local institutions (e.g., local authorities) are relevant actors in urban politics and remain in charge of local political authority. They are also repositories of systems of rules, meaning, and beliefs able to drive urban politics on a defined set of objectives. Therefore, cities’ priorities and urban policies are influenced by the authority and system of norms arising from local institutions (Pierre, 2011, 16). With urban governance, new actors are involved in the decision-making process at the urban level, but their impact depends on the institutional framework, which can act as a facilitator or a constraint. In particular, partnerships or informal networks with third sector organizations now represent tools able to empower cities’ “capacity to act” at the local level; but they can also challenge the authority of local institutions (Pierre 2011, 16).

This means that urban governance is based on “different models of public-private exchange and concerted resource mobilization” (Pierre 2011, 20). Therefore, more attention is now given to policymaking processes than to formal institutions.

However, keeping an institutional approach to urban governance helps explain how some forms of urban governance are the result of different institutional frameworks, considering both the structures and the sets of norms they represent. As Pierre stated, “applying an institutional perspective to urban governance rests on the assumption that structure matters; despite the influence of economic and societal actors on urban political decision-making, urban political institutions remain the only effective linkage between the populace and elected officials” (2011, 23).

Di Gaetano and Strom also developed an institutional model of urban governance, based on the type of public-private governing relations arising from the interactions between different institutional bases and modes of governance. Institutional bases represent the formal institutional arrangements (e.g., governmental bodies, agencies, political parties, interest groups, organizations and partnerships) able to provide a visible form to urban governance through rules and organizational structures (2003, 363). Modes of governance refer instead to “all those informal arrangements that define the governing relationships among and within formal institutions implicated in urban politics” (Di Gaetano and Strom, 2003, 363).

2.5. Urban governance and food

Moving now to the core of our study, this section illustrates how food policy has become a much more common theme in discussions around urban policy and governance. In particular, the peculiarities of urban food systems and their interactions with a wide variety of policy fields, explain how difficult it is to develop formal institutions or policies revolving around
urban food. Food can only be treated from a holistic perspective, and different policy areas will necessarily be dragged into its scope. Therefore, while it is difficult to find a defined space for food policy at the urban level, urban food policy tends to unfold, in very different urban contexts, from new arenas and platforms of governance, involving public, private, and third sector actors (Ilieva, 2016).

Food has not generally represented a mainstream domain for urban politics, policy, and governance. However, as Morgan stated about ten years ago, this “puzzling omission” is not justifiable anymore given the multifunctional character of the food system, with its effects on different policy sectors, and the now recognized belief that it cannot be automatically relegated to the rural affairs domain (2010, 341). More recently, Morgan remarked that this omission cannot be accepted anymore, recalling how the very nature of food does not allow for it to be treated as any other commodity (2020). Indeed, in a way that is different from other market goods, food represents one of the main enablers of people’s wellbeing.

The nature and the structure of the food system seem easily adaptable to a policy framework which includes different policy layers and areas. Cities are at the centre of the governance revolution. New actors and new issues are debated at the local level and new institutional structures are constantly shaped. Thus, Moragues-Faus and Morgan explained that “cities are emerging as key transition spaces where new food governance systems are being fashioned” (2015, 1558). The role of the state, and even of local authorities, shifted from rowing to steering the delivering of public services (Halliday, 2015, 23). Since this change occurred in every policy domain, the food system cannot be regulated anymore solely by top-down mechanisms. Hence, the private and third sectors took over a very relevant role in its governance. In particular, the food policy triangle below shows the interconnection between all these actors within the complex present food system (Halliday, 2015, 23).

**Figure 1: Food Policy Triangle**

![Food Policy Triangle](image)

Food policies at the urban level can take many forms, and those are conditioned by their local context (Moragues et al., 2013, 2). Generally, an urban food strategy has been defined as a process which envisions the change of the food system, placing food on the urban agenda and creating synergies with several stakeholders from different backgrounds (Moragues et al., 2013, 3). Urban food strategies usually consider different policy domains, which span from public health to environmental policy, community development, local economy, retail and waste management (Moragues et al., 2013, 3). In this sense, Stierand (2012, 72) and Sonnino
and Spayde (2014) recognized that urban food strategies should be distinguished from food policy councils, though they represent two related solutions. In their view, food councils indicate the organizational framework which directs food policymaking at the local level, while urban food strategies represent the set of policy objectives which guide food policymaking.

The urbanization of food policymaking replicates the urbanization narrative, based on the notion that a more city-centred perspective should be adopted in policymaking, since most of the global population now lives in cities (Moragues-Faus and Morgan, 2015, 1560). Indeed, an emerging body of literature is converging on the relationship between food and urban policy and planning, debating the role of civil society groups and food movements in this context. In particular, it showed how they tend to cooperate with local governments to fill the policy vacuum left by national policy, with the aim of rescaling food policymaking at the urban level (Sonnino, 2019, 14). Therefore, urban food policies, especially in the US and UK, often emerge from social movements coordinated by local governments (Stierand, 2012, 69). Sonnino also investigated the socio-cultural context that is influencing the food-related debate at the urban level (2019). Among other factors, a model of participatory food governance has been advocated, with the notion that institutional arrangements which enable coordination between different actors and sectors is fundamental in the food policy realm (Sonnino, 2019, 15). Accordingly, the support of civil society and non-governmental organizations is not only required to identify policy needs, but a multi-stakeholder contribution is pivotal to make those policy efforts successful. This means that urban governance models directly shape food policymaking and urban planning strategies related to food at the local level.

This is exceptionally true, as food policy has not traditionally been a prerogative of urban governments and it is clearly the result of the abovementioned governance revolution. Hence, food policymaking in cities didn’t emerge from top-down impositions but from bottom-up and participative processes where the public, private, and third sectors crossed their paths to address and prioritize food issues locally. Indeed, Stierand reported that “local organizations and authorities are getting aware of these new urban food needs and the multifunctional character of the food system. They are starting to develop policies and projects to influence the food system bottom-up” (2012, 69). However, policymaking is always the consequence of several factors coalescing together to bring one or more issues on the decision-making table. In particular, if we define policy as “a certain course of action that an agent or a group of agents follows with the aim of tackling a problem or a question of specific interest” (Anderson, 2003, 2), specific policy motivations will explain why some policies prevails over others. In particular, agenda setting represents the pre-decision phase of the policy process when issues and problems are selected before policy intervention (Majone, 2006). Indeed, as Birkland stated, “the likelihood that an issue will rise on the policy agenda is a function of the issue itself, the actors that get involved, institutional relationships, and, often, random social and political factors that can be explained but cannot be replicated or predicted” (Birkland 2007, 77).

To promote sustainable food systems, cities can play a crucial role, as they are able to foster cooperation and self-organization via food networks such as community supported agriculture or food hubs (Biel, 2016). Cities can also contribute to feeding themselves and increase the resilience of rural agriculture, by alleviate some of the food system stresses it experiences (Biel, 2016). Moreover, urban food policy strategies can promote public health (Nasr and Komisar, 2012, 37); and land-use policies can facilitate the design of healthy built environments in which access to food is more equitable. Moreover, Burstein, reviewing the main determin-
nants of public policy, showed how private and third sector advocacy activities, the existence of organizations concerned about specific issues, party balance, and macrolevel indicators of social, economic, and political conditions are pivotal in explaining why governmental bodies at every level and in every policy sector decide to formulate specific policies (2020). Burstein also argues that specific policies may result as a combination of different policy determinants (Burstein, 2020, 96). Urban food policies are no exception. For example, the issue of food poverty has become relevant even in the Global North, especially at the urban level. Here cities are progressively emerging as food policy innovators relying on “their political and economic power to design new types of food systems that transcend simplistic dichotomies between the local and global scale and between urban and rural development” (Morgan and Sonnino, 2010, 222). For example, Robert Biel believes that solutions to the urban food crisis cannot be solely technical, but they need to be political (2016). Thus, structures of urban food governance (e.g., food councils or partnerships) can therefore play a significant role in bringing cities and local authorities to develop and formulate food-related policies and promote policy change.

2.6. Community and community action

This section illustrates how debates about governance and/or food policy at the urban level cannot be detached from discussions surrounding local community action and engagement. But before understanding how these concepts are intrinsically linked to each other, it is necessary to specify what is meant by “community” from a spatial and socio-economic perspective.

Cities represent unique social and cultural spaces where different and multiple communities of people live and interact with each other. Here, “communities” can be intended as dense, diverse, and transient localities (Bertotti et al., 2011: 8). The notion of community represents a broad topic of discussion in social science, and it is hard to provide a comprehensive definition. According to Neal, “a community is a group of people who interact with one another [and] this interaction is typically viewed as occurring within a bounded geographic territory such as a neighbourhood or city” (2012). Neal also states that members of the community tend to share similar values, beliefs, and kinds of behaviours (2012).

According to the theorists of new urbanism, a sense of community emerges when integrating private residential space with the surrounding public space (Talen, 1999, 1363). In this context, a sense of community has been identified as shared emotional connection, neighbourhood or place attachment, social membership and influence, mutual involvement, and a sense of place (Talen 1999, 1369). However, as Brent explains, community is subject to the paradox of definition. So, as soon as one tries to establish a comprehensive definition, “it ceases to have a verifiable existence” (Brent, 2004, 219). Indeed, the notion of community is used in a disorienting variety of ways, and it is often associated with a “primordial type of social organization situated between family and kinship and society at large” (Barrett, 2015, 182). According to Barrett, “community has an intrinsic association with place” (Barrett, 2015, 182). Here, “place” represents a socially constructed space that could be an urban neighbourhood or a rural village with which the community has an interactional relationship due to its specific conditions such as propinquity, population stability, and continuous interaction patterns (Barrett, 2015, 182). Although the spatial element of community has recently been questioned by scholars as “diffuse social networks [that] have replaced primary ties”, community still remains a wider concept than social networks, as it embodies structures, institutions,
Moulaert argues that local communities such as urban neighbourhoods represent “heteroge-
neous, yet decidedly localised, assemblages and are pivotal sites for initiating and implemen-
ting social change that may ripple through the city” (2010, 5). Moulaert also reports that “the
rising tide of market fundamentalism and the consolidation of the neoliberal state has indeed
reduced the governance of public space to the management of the exchange and control of
property and property rights, reducing places to objects managed according to strict market
logics. This means that great parts of public space have not only been privatised, but depoliti-
cised too” (2010, 6). In this context, communities have become “enablers of citizenship rights
in social life” and represent “concrete life-experience settings, where citizenship rights are
fought for, where mobilisations against social exclusion are initiated and staged, and where
new political rights are defined” (Moulaert, 2010, 6). So, this interpretation of community
reflects a powerful, area-based political meaning which is also socio-spatially constructed.
Hence, community becomes what Sen calls a “space of capabilities” (Sen, 2005).

Moving from this idea of community as an active and mobilizing social construct, commu-
nity action refers instead to any deliberate attempt to involve local or public welfare groups
either in voluntary self-help arrangements or as participants in decision-making and service
implementation processes (Bryant, 1972, 205). Therefore, community action involves a wide
range of initiatives such as voluntary organizations, protest or action groups, self-help groups,
community programmes, housing associations, etc. (Bryant, 1972, 205). It also differs from
other forms of activism as it considers political impotence a central problem. Thus, commu-
nity action can arise when individuals who share similar concerns mobilize to promote their
collective interests. (Bryant, 1972, 205). It either emerges from a specific geographic setting
or develops “on the basis of functional interests which unite people who have no direct geo-
graphic links” (Bryant, 1972, 207). Community action also tends to be based on bargaining
strategies when negotiation is possible or on confrontation strategies if there is a polarization
of interests (Bryant, 1972, 208). Bryant argues that community action uses “conflict as a
strategy for achieving change and, […] this acceptance of conflict as a purposive organizing
and tactical force clearly distinguishes community action from other approaches to communi-
ty work” (1972, 206). He also states that the “assumptions which underlie community action
invariably imply the existence of a conflict of interests between community groups and the
public or private institutions which exercise a decision-making influence” (Bryant, 1972,
207). Furthermore, community action can push local governments to fulfil their responsibi-
lities, without replacing their role or absolving them of their duties. And its impact expands
with local governments’ support (Satterthwaite, 2011, 342). Community action can also draw
attention to the priorities of the most vulnerable communities and demonstrates more effecti-
ve ways of acting (Satterthwaite, 2011, 341).

In relation to urban planning, Gilbert and Ward explained that community action can help
provide community services and infrastructure, reduce dependence on local governments;
 improve physical standards; raise awareness on specific issues, and increase the community’s
role in decision-making (1984, 769). Indeed, “good decision-making depends upon planners
and communities exchanging ideas and opinions” (Gilbert and Ward, 1984, 769). Although
it may seem a vague concept, planners can identify community action either with forms of
active involvement among neighbours (such as improving the local built environment); with
forms of passive participation, if local residents trust their local leaders; or with “a political
statement of opposition to the leadership” (Gilbert and Ward, 1984, 771).

Then, especially when disasters happen, “the speed and effectiveness of response depends very heavily on local organizations that represent the needs of those most impacted and most vulnerable” (Satterthwaite, 2011, 339). Satterthwaite also explains that community action is crucial for disaster risk reduction, for post-disaster rebuilding, and even for climate change adaptation (2011, 339). In particular, “the ability of communities to cope with and recover from large-scale emergencies is often referred to as community resilience” (South et al., 2020). The literature on community response to disaster is plentiful and offers some insights into how communities respond to hardship: they are often caught unprepared, even in the wealthiest countries (Shannon, 2015). Hence, they need extra training (Newport and Jawahar, 2003), strengthening of community activity (Newport and Jawahar, 2003), and networks of disaster relief (Day, 2014) to become resilient. Communities do not act in isolation, and they represent only one type of “institution” that wires the wider governance framework of a city. Apart from formally organised community governing bodies, private and non-government organisations, there are also residential community-based organisations, and “pop-up” community initiatives with no formal status. An important contribution of community action to risk prevention and reduction is to provide local governments with a detailed and locally rooted information base. This can enable them to map disaster risk, especially if there are accurate, detailed, location-specific records of the impacts of extreme weather and other hazard events that caused accidental deaths and injuries (Satterthwaite, 2011, 343).

2.7. Food security

If cities represent spaces where diverse and multiple communities of people live and interact, food security issues affect individual urban localities differently, and these peculiarities need to be addressed by envisioning a community food security approach to improve food access and distribution in cities. This section therefore outlines subsequent developments in the concept of food security, moving from the idea that food insecurity only denotes lack of food supply, to the consideration that it also occurs when local populations lack access to healthy and affordable food options in their communities.

Food insecurity has become an urban issue, and together with malnutrition and obesity, affects urban populations’ health. Indeed, obesity is concentrated in cities, and food represents the main expenditure for the poorest urban households (Tacoli 2019). Therefore, with most people now living in cities, one of the main challenges is understanding the reasons behind a lack of access to healthy diets and food in urban areas and how to promote urban sustainable food systems.

Food security was initially associated with the capability to address aggregate food needs in a consistent way (Anderson and Cook, 1999, 142). During the 1980s and 1990s, food security started to be recognized as a major public health concern, and Amartya Sen coined the concept of food entitlement (1981) and described a shift in focus from the production of adequate supplies to ensured food access. The level of analysis also shifted to the individual and household level, applying anthropometric measures of food intake (Anderson and Cook, 1999 142).

In the 1990s, subsequent shifts in the notion of food security occurred. The Rome Declaration on World Food Security reaffirmed “the right of everyone to have access to safe and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger”. In the same year, during the International Food and Agriculture
Summit in Rome sponsored by the United Nations Food and Agriculture Organization (FAO), food security was defined as “a situation in which all households have both physical and economic access to adequate food for all members and where households are not at risk of losing such access”. There are three dimensions implicit in this definition: availability, stability, and access. Adequate food availability means that, on average, sufficient food supplies should be available to meet consumption needs. Stability refers to minimizing the probability that, in difficult years or seasons, food consumption might fall below consumption requirements. Access draws attention to the fact that, even with bountiful supplies, many people still go hungry because they are too poor to produce or purchase the food they need. In addition, if food needs are met through exploiting non-renewable resources or by degrading the environment, there is no guarantee of food security in the longer-term (United Nations Food and Agriculture Organization, 1996). So, the main objective of food security moved from merely securing adequate individual nutritional intake to ensuring households’ sustainable livelihoods (Anderson and Cook, 1999, 143).

Ultimately, the American Public Health Association defined a “healthy and sustainable food system” as capable of providing “healthy food to meet current food needs while maintaining healthy ecosystems that can also provide food for generations to come with minimal negative impact to the environment. A sustainable food system also encourages local production and distribution infrastructures and makes nutritious food available, accessible, and affordable to all” (APHA 2007, para. 4).

2.8. Community food security

Community-based food security initiatives also started to be seen as capable of providing more durable solutions to food insecurity, as they can empower individuals and increase knowledge and skills, rather than providing only a transitional response to food access. Community food security represents an effective tool to engage and cross-mobilize local actors and stakeholders to improve food access and diets at the community level.

The idea of community food security reflects the belief that tackling food security at the community level would involve more stakeholders in the policymaking and planning processes and that it offers the opportunity to tackle a broader set of issues, such as sustainable food assistance schemes, fair wages for local producers, and environmentally sustainable food production (Anderson and Cook, 1999). Indeed, community food security has emerged as a conceptual variation in the broader notion of food security (Anderson and Cook, 1999, 141). And “although it shares a focus on health, sustainability, social justice, and community self-reliance, community food security addresses communities of households and individuals, not just the latter two. Local community food security projects distinguish themselves by their attention to community infrastructure and their local food system approach to achieving food security. Individual projects vary by location and by the identities of local actors” (Hamm and Bellows, 2003, 38).

Thus, the term community, despite its generally vague connotation (Anderson and Cook, 1999, 146), when associated with food security, refers to specific geographic characteristics, local political economic systems, and demographic aspects of food security (Hamm and Bellows, 2003, 38). Healey defines community as an example of soft social infrastructure in cities, as opposed to local and city governments, which refer to hard social infrastructure (1996). Consequently, “community food security (CFS) is defined as a situation in which all
community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice” (Hamm and Bellows, 2003, 37). Within this notion, “food security represents a community need, rather than an individual’s condition, as associated with hunger” (Gottlieb and Fisher, 1996, 24).

Therefore, CFS has several dimensions, which include personal and household food security; and sustainable food environments from a social, economic, and environmental perspective, a mainly self-sufficient food system in which food is locally produced, processed, and monitored as widely as possible. Food supplies are many and varied, and community members are engaged in policymaking processes (Hossfeld et al., 2016, 44).

There are many barriers to community food security, which are caused by complexity of the concept (Anderson and Cook, 1999, 146), the difficulty of data collection (Hamm and Bellows, 2003), and the lack of political will among those in power to make effective changes (Williams et al., 2012). But there are also opportunities for policymaking by implementing community programmes which offer short- and long-term approaches to CFS (McCullum et al., 2005) through advocacy campaigns on the importance of locally grown, seasonal, and organic foods (Williams et al., 2013), and by introducing the objective of CFS at different stages of the policy development process (McCullum et al., 2002).

Intended as a policy-based approach, CFS provides both a critique of, and an alternative approach to, traditional food systems. It also reveals a multidisciplinary orientation as it links together food system activities with community objectives. In particular, “it seeks goals associated with progressive planning—equity, health, and sustainability; it is comprehensive in its view of food systems and their connections to people, natural resources, and place; and it holds community as an indispensable unit of solution to food problems” (Pothukuchi, 2004, 357).

Therefore, community food security can take many forms, originate from different backgrounds, and address different localities and a wide range of actors. For example, Pothukuchi explains how traditional planning can introduce tools to address community food security by regulating land-use, and by promoting sustainable and healthy communities (2004). In his view, as planning displays a deep interest in designing healthier and more liveable spaces for local communities, planners can rely on community food assessments to “collect and disseminate information on selected community characteristics so that community leaders and agencies may devise appropriate strategies to improve their localities” (Pothukuchi, 2004, 356). Meenar and Hoover also explain how urban agriculture can alleviate food insecurity in lower-income neighbourhoods, bringing an example from Philadelphia (2012). In their view, urban agriculture projects occupy a vital place in promoting community food security in disadvantaged inner-city areas (Meenar and Hoover, 2012, 143). Joassart-Marcelli, Rossiter, and Bosco also explain that a community perspective on food security allows for a more comprehensive understanding of local geographies of food supply (2017). Their investigation on ethnic food markets in San Diego shows how the concept of “food deserts” does not always fit low-income neighbourhoods as it ignores the importance of more informal, local, and community-based systems of food provision such as local food markets (Joassart-Marcelli, Rossiter and Bosco, 2017, 1642).

Finally, Haynes-Maslow and Hardison-Moody explained how COVID-19 has completely
reshaped the food system and “how people interact with their community food environment” (2020, 197). The pandemic has rendered inequalities in access to healthy food even more visible when comparing different urban areas, neighbourhoods, and communities, by overly affecting income and ethnically diverse communities. Thus, Haynes-Maslow and Hardison-Moody’s research showed how informal, community-based food networks providing mutual aid to local residents have been able to bridge the gaps left by government schemes, despite the financial hardships that negatively affected food security during the pandemic. Ultimately, their survey on communities from North Carolina in the US revealed how informal community food systems that exist in families and communities can improve food security and help people make ends meet during the roughest of times, such as during the COVID-19 pandemic (Haynes-Maslow and Hardison-Moody, 2020, 199). Therefore, a community approach to food security is capable of identifying those local systems and linkages by strengthening their role in increasing food security, especially in diverse and more deprived urban areas.

2.9. The role of civil society in ensuring food security during COVID-19

This section broadly discusses how food access and distribution were addressed during the pandemic and how voluntary and community organisations became a key part of this discourse, fuelling new configurations of urban governance at a local scale. It has been estimated by retailers that “there are only about three days’ worth of fresh food in major cities at any given time, leaving them vulnerable to emergencies that could close supply lines, such as disease epidemics, natural disasters, trade embargos, etc.” (Soma and Wakefield, 2011, 54). Indeed, since the onset of the pandemic, community action has been a vital part of the public health response and played a key role in protecting most clinically vulnerable people in very different national and urban contexts, by offering practical help with shopping and running food banks, in providing telephone befriending and staffing helplines, and in conducting community-led contact tracing, etc. This type of community mobilization during an outbreak can be crucial and can lead to the development of long-lasting community support networks (South et al., 2020).

Since the end of 2019, COVID-19 has imposed an unprecedented challenge on governments’ role in ensuring basic health and economic conditions, but also food security, for their populations. In response to this challenge, many governments have relied more on voluntary and community organizations (VCOs) and citizen volunteers to deliver and co-produce basic social services (Miao et al., 2021; Pevnaya et al., 2020; Steen and Brandsen, 2020). VCOs refer to various types of non-governmental and non-market organizations, including membership-based non-governmental organizations, religious organizations, neighbourhood community organizations, and informal “pop-up” initiatives.

VCOs constitute the “soft” infrastructure of urban governance as opposed to the “hard” infrastructure represented by local and national governments (Healey, 1996). Historically, these organizations have played a critical role in welfare provision, before the government could take action, and often in collaboration with government and market actors (Davis Smith, 1995; Lewis, 1999; Hogg, 2020). The VCOs’ role is based on their “greater ability to engage with and understand the needs of individual service users and communities than statutory or private sector providers” (Hogg and Baines, 2011: 346). This comparative advantage of VCOs vis-à-vis other actors in meeting social needs may well be manifest in times of unex-
pected societal crises. During the pandemic, the demand for food relief, which the statutory welfare was not ready to cope with, exploded, as vulnerable people became suddenly more numerous and visible than ever. Prior to the pandemic, food security has been stable for a broad population in most countries, but not necessarily for socially vulnerable groups. As news media and VCOs revealed the need for food relief for these groups (Convey and Henriques-Gomes, 2021; Cho and Jeon, 2021; Oscarson, 2021), scholarly research began to pay attention to the COVID-19-related urban food security issue (Geiger et al., 2021).

We can now see that VCOs are gaining growing attention in the literature related to COVID-19 (Santos and Laureano, 2021). VCOs have been recognized as playing a key role in ensuring support to improve the most vulnerable individuals’ health, social, and economic conditions, especially during crises such as the present COVID-19 (Healey et al., 2002). VCOs provide welfare by complementing or substituting the state provision (Davis Smith, 1995; Lewis, 1999; Hogg, 2020) and often pioneer the social services that later become part of statutory welfare (Osborne, et al., 2008). Food insecurity is a major issue for VCOs working with poverty relief. As Tacoli (2019) points out, food is the main source of expenditure for the poorest urban households. Indeed, food insecurity is not an issue exclusive to low-income countries, but it remains unresolved in high-income countries (Mook et al., 2020).

COVID-19 may have added a unique impact on food insecurity. In most welfare states, statutory social assistance no longer provides food, but provides cash to buy food to ensure food security. Often, statutory social assistance suffers from low take-up of benefits among the needy because of moral stigma attached to it or the complex process of means testing (Piven and Cloward, 1993; Soss et al., 2011). In addition, those benefit recipients may reduce food consumption to pay for other things when they face economic predicaments.

The strength of VCOs comes from “greater ability to engage with and understand the needs of individual service users and communities than statutory or private sector providers” (Hogg and Baines, 2011, 346). This comparative advantage constitutes an intrinsic characteristic of VCOs. Moreover, their relatively informal and flexible organizational structure enables them to be more responsive to the disadvantage of service users than the state or the market (Billis and Glennerster, 1998). In addition, in an era of growing mistrust in many public institutions, VCOs often maintain higher levels of public trust than the government (Paxton et al., 2005), which is a critical asset for VCOs in linking the service recipients and supporters. Such comparative advantages should be more advantageous in times of unprecedented socio-economic crisis, for which statutory welfare is not ready to cope with.

Compared to broad-scale government programmes to alleviate food insecurity, VCOs can better adapt their programmes to specific local geographic, political, and demographic characteristics, while building local capacity to ensure the access to and availability of food within the communities (Hamm and Bellows, 2003, 38; Anderson and Cook, 199, 144). This capacity of VCOs enables the bridging of the gaps within local food systems, providing food relief to individuals and families in need through food banks, food pantries, and soup kitchens. Their closeness to local communities grants them insights and abilities to complement traditional government programmes or market-based food provision (Pothukuchi, 2004).

In addition, there is a structural constraint related to the welfare regime context. According to Salamon and Anheier (1998), the welfare provision of VCOs varies depending on the welfare regime. Specifically, drawing on the welfare regime typology (Esping-Andersen, 1990),
in the liberal (e.g., the US) and the conservative welfare regimes (e.g., Germany), where statutory welfare is underdeveloped, they assign a large role to the VCOs. The VCOs in the liberal welfare regimes are distinguishable from those of the conservative regimes. Whereas the former are active and independent of the state, the latter (e.g., the church) provide welfare as an extended arm of the state, and thus, their role is rather passive and dependent. In contrast, the theory expects no significant role for the VCOs in the social democratic welfare regimes (e.g., Sweden), because the state provides a comprehensive statutory welfare. The VCOs’ welfare provision in the statist (or familial) welfare regimes (e.g., Japan and Korea) would be marginal as well, because civil society actors are assumed to be weak.

This classic typology, however, has critical limitations when characterising the welfare provision of VCOs. Their unique roles, such as pioneering a social service before the government action, or reaching out to the most vulnerable individuals outside of statutory welfare, cannot be captured by the budget size of VCOs or statutory welfare (see Casey, 2016; Hogg, 2020; Ragin, 1988; Von Schnurbein et al., 2018). Such roles are based on the VCOs’ intrinsic characteristics as the voluntary actors working closely with the service users, and thus need to be examined qualitatively.
3. Research design and methods

The project has collected quantitative and qualitative data from six cities: Stockholm, Wuhan, Seoul, Singapore, Sydney, and London. This wide selection of cities provides a strong case for making comparisons and seeking learning outcomes. These cities are all global capital cities (except Wuhan) that hold vibrant communities of different ethnic and cultural composition. What is more, these cities have all gone through some level of lockdown and had different levels of virus infections. Whereas Stockholm, Wuhan, and London were local epicentres, Singapore, Sydney, and Seoul had community transmissions, but were not out of control. Also, these cities are highly developed and facilitate access to a plethora of different digital tools. Their high degree of population density, varied urban typology, and a varying degree of access to welfare services make them suitable candidates for studying community responses to food security. As the measures imposed to combat COVID-19 differed, ranging from low (Stockholm) to strict (Wuhan), the selected set of cities have allowed us to make comparative analyses of how food security issues came into existence and were mitigated as part of community responses.

The research was developed in the two steps as described below. First, we set about selecting cases and categorizing the landscape of government and community responses to food security in each city. For each city, we conducted either interviews or collected documents. In many instances, both types of empiric data were collected and used for further analysis as presented in the following chapters. As this chapter provides an overview, the reader is referred to each article for more specific insights into the respective methodological considerations taken.

3.1. Case selection

This report is based on a sample of six global cities for which country-specific repositories have been developed and where community responses were categorized by focus, type, distribution, scale, urban context, etc, with a focus on the selected cities, i.e., Stockholm, Wuhan, Seoul, Singapore, Sydney, and London (Table 1). This purposeful sample has allowed us to capture different nuances in community responses for each city.

Stockholm, the capital city of Sweden, represents the Scandinavian social democratic welfare state regime (Eikemo and Bambra, 2010): a cradle-to-grave universal welfare state encompassing all where interventionist responses for combating poverty are likely. The pandemic response was less interventionist, as Swedish lawmakers and the government kept society open throughout the whole pandemic period. Early on, the government largely relied on citizens to keep tabs on themselves and of self-imposing voluntary restrictions, with the exception that large public gatherings were banned.

London is the capital of the United Kingdom and represents the Anglo-Saxon liberal welfare regime. According to Eikemo and Bambra, citizens can expect welfare responses from the state to be minimal, and entitlement is highly controlled through strict criteria. During the pandemic period, the UK experienced a total of three nationwide lockdowns aimed at suppressing the contagion of COVID-19. By the end of 2020, the government also enacted a three-tier system for imposing stepwise restrictions on movement.

Sydney is the most populated city in Australia. The Commonwealth of Australia is a federa-
tion of six states which, together with two self-governing territories, have their own constitutions, parliaments, governments, and laws. Constitutional responsibility for local government lies with the state and territory governments. Consequently, the roles and responsibilities of local government differ from state to state. Local governments are also known as local councils (Parliamentary Education Office, 2022). Australia is classified by Esping-Anderson (1990) as a liberal welfare regime under which welfare arrangements are selective and residual. Private sources of income placement, private expenditure on health, and means-tested social security benefits are most prevalent. Therefore, benefits, which are supposed to be sufficient only to cover bare subsistence needs, are supposed to go to the poor and only the poor (Goodin et al., 2000). Australia’s government approach has been minimalistic, which has focused its activities on schemes such as school meals programmes. It has an active NGO sector and volunteer culture that supports implementation of government policy and provides informal support. The government is also willing to coordinate in emergencies.

Wuhan is the capital of the Hubei Province in the People’s Republic of China. It was the first major city where the COVID-19 pandemic broke out and became, therefore, a testbed of urban governance and food supply in reaction to the pandemic. Vulnerable households in China primarily rely on the support of families or extended families. People who cannot receive support from kinship networks would receive support either through home-based care or institutionalized care, with entitlement determined through means testing. The city experienced instances of “hard” lockdowns in response to the Chinese zero-covid strategy employed by the government, meaning that each household could only send one family member out to purchase daily necessities once every three days. The whole city was under tight traffic control for longer durations, which meant that physical movement was curtailed and led to an increased need for the state to supply the citizens with everything needed for survival.

Singapore, officially the Republic of Singapore, is a so-called sovereign island country and city-state in the Southeast Asia maritime region. After the outbreak of COVID-19 in early 2020, the disruptions to economic activities in Singapore were kept moderate. Schools and shopping malls were not closed, and people could still commute to work. The government’s objective was largely to balance the demand of maintaining economic activities with health security. New mobile apps were developed, such as e-payments for hawkers, delivery services, and cloud kitchens, and community-based apps to match volunteers with seniors needing help (Centre for Liveable Cities, 2020). From the start of the outbreak, Singapore’s main measures for epidemic prevention and control focused on strengthening border control to reduce imported cases; implementing detection, tracking, and isolation; and implementing social distancing while highlighting personal hygiene and social responsibility. While restaurants, hawker centres, coffee shops, and food courts closed during lockdown, digital platforms played an important role in food delivering.

Seoul is the capital of South Korea. Despite significant welfare reforms, the familial welfare state partly remained. During the pandemic period, the South Korean government opted for an approach to keep society open through tracking-and-tracing initiatives to contain infected individuals. Using the 3T (testing, tracking, treatment) approach, residents of Seoul could maintain their basic routines, while wearing masks in public space.

Wuhan, Singapore, and Seoul represent a productivist welfare regime which provides oc-
ocupationally stratified social protection mainly to state employees, and productive labour in productive firms. Basic social security remains as means-tested social assistance or family responsibility. In the literature, a “productivist” welfare state human capital investment is supposedly the main focus of social expenditures (Holiday, 2000). There is also an argument that South Korea is a more developmentalist welfare state these days, as it stresses both economic and social development.

### Table 1 The compared cities in overview

<table>
<thead>
<tr>
<th>City</th>
<th>Welfare regime</th>
<th>Response/Lockdown</th>
<th>Pop. mill.</th>
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<tbody>
<tr>
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</tr>
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</tr>
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3.2. Data collection and analysis

Data collection took place during 2021. First, we set about categorizing to describe the landscape of community responses to food security during COVID, and analysing knowledge of secondary and grey literature such as public/government datasets, policy initiatives, or other documented community responses to food in the countries. Primary data was collected to unpack how community responses to food security during COVID-19 are governed. We focused on two units of analysis in each city. The units selected where either “representative” on quantitative grounds (i.e., most occurring, level of response, density, etc) or “worth comparing” on theoretical grounds (i.e., type of response/governance, etc.).

First, we built a repository containing information about national- and city governance, and key actors involved in food governance, as well as spatial or demographic information for each city, and government-, private-, or civil society responses during the pandemic on issues of food. This enabled us to grasp the comprehensiveness and scale of the pandemic, and the underlying responses taken in each city to mitigate virus spread and, as a result, actions taken by different stakeholders to cushion the social and economic impacts on vulnerable groups.

To further our understanding of food communities and of the various responses in each city, we conducted interviews with representatives of community organizations, but also reached out to local food businesses or other non-governmental or governmental actors working with food issues. The interview guide contained three overarching themes. The first theme built on gaining access to information about the respondent, her organisation, and insight into how the organisation works. The second theme concerned how the organisations worked with issues of food supply during covid: that is, the effects of the pandemic on issues of food, sources of funding, and the role of technology and the urban environment. In the third theme, we posed questions regarding challenges connected to the pandemic, and asked the respondents to
reflect upon crisis management and community food resilience. We conducted a total of 22 interviews in four of the cities. The interviewees were drawn purposefully to consist of a mix of stakeholders involved at different levels in community food security. Depending on the city, the respondents were either public servants, elected politicians, community representatives or representatives from third sector organizations. Due to the pandemic, the research team conducted the interviews either physically as fieldwork or by using mobile phones or laptops and audio-visual interfaces such as Skype, Teams, or other digital communication tools. The interviews lasted approximately 60 minutes and were transcribed by members of the research team. For organisations we could not interview, analysis drew on materials posted or other interviews conducted by news media.

To complement this, our research also drew on a rich set of different types of policy documents and other types of documents collected during 2021. Official documents and statistics provide background information, on the cities and for analysing the conditions, resources, and constraints of the cities. We also read and analysed government policies introduced during the COVID-19 pandemic to establish the policy contexts. Grey media such as newspaper articles published by the main media houses in the cities also form an integral part of the empirical foundation. Media outlets were quick to publish frequently, and in many instances in-depth during the pandemic on topics central to this report. Hence, articles published and used for analysis provided us with insights into ad hoc initiatives, how VCOs worked during the pandemic, and into other territories related to urban food governance that otherwise would be hard to identify and access.
4. Lessons learned from the case studies

4.1. Stockholm

Key information
Stockholm is the capital city of Sweden. The metropolitan area is inhabited by approximately 2.4 million inhabitants, with a population density of about 5,211 inhabitants per sqm for the central area (Stockholms stad). The municipality of Stockholm divides into 13 boroughs (stadsdelsnämnder), each responsible for providing local welfare such as social services, elderly care, and schooling. Stockholm is the main economic hub with a GDP per head of 936,000 kronor (approximately 93,600 EUR) in 2018 (Stockholm 2022), 40% higher than the Swedish mean gross domestic product.

Welfare and food policies
While being the powerhouse for the Swedish economy, Stockholm is also a city of inequalities and economic hardship. In their study of socio-economic segregation in the main Scandinavian capital regions, Haandrikman et al. (2021) show that Stockholm exhibits a higher degree of socio-economic segregation compared to neighbouring capital cities due to shortages in affordable housing, high property prices, and migration inflows. For Stockholm, the authors singled out inhabitants in the immigrant-dominated boroughs of Rinkeby-Kista, Spånga-Tensta, and Skärholmen as being more likely to live in poverty in contrast to the rest of Stockholm (Haandrikman et al., 2021, 20). Data from the Food and Agriculture Organization (2022), a branch of the UN, shows that the three-year average of moderate to severe food insecurity in the total Swedish population has risen from 4.5% during 2014 to 2016 to 5.3% during 2018 to 2020, making Sweden outrank both South Korea and the United Kingdom. Despite this increase, food insecurity in Sweden isn’t widely discussed in either the media or in academic articles. Overviewing the field, a state-of-the-art review by Rost and Lundälv concludes that “[...] the fact that the phenomenon of food insecurity appears to be a concealed one in Sweden means that it may not yet be recognized in the public domain as a social problem” (2021, 1029).

National food stockpiles were liquidated with the end of the Cold War and not really replenished in a sustainable way since then. Sweden has since seen a shift in the responsibility of feeding the population during the crisis from the state to the citizens. Today, Sweden relies on the market to mitigate shocks in food supply, and the current national Swedish food strategy leaves out societal vulnerabilities by instead focusing on making national food chains competitive vis-à-vis peer countries (Government Offices of Sweden, 2016), and on “just-in-time” deliveries to restock grocery stores.

As for the municipality of Stockholm, the current strategy of “[g]ood, healthy and climate friendly food” (Stockholms stad, 2019) set the overall guidelines for how to tackle various issues connected to food servings by the municipality. As the food is served through different municipal branches, primarily in schools and elderly care, the policy only applies to municipal run services. The policy primarily aims to tackle public health issues connected to food and inspire to a healthy and climate smart food” and leaves out policies to combat food poverty or deprivation. Regardless of policies at play, such work to combat food poverty, and indeed poverty in general, is embedded into the practices of the social services.

Food insecurity at the household level is therefore addressed by the integration of welfare provision as a monthly payment to households living in poverty. This means that local gover-
nments such as Stockholm are tasked with ensuring housing and making allowances for purchasing food or other necessities for people in need. Entitlement to social benefits builds on the principle of giving the recipient a fair and equitable standard of living (4 chap. 1 § Social Securities Act [SFS 2001:453]). Due to a legacy of using framework legislation to guide the practices and decisions of public authorities, rather than strict codification of practices into law, the decisions on what is to be included or excluded in the standard of living is guided by court decisions and therefore subject to regular adjustments (Socialstyrelsen, 2021a). As of 2021, the minimum cash benefits, set by the Swedish government, were equal to 3.160 SEK, or approximately 316 EUR for a single household (Socialstyrelsen, 2021b). The cost of housing or rent, sick care, and electricity are covered by other social entitlements, and the national minimum standard covers groceries, hygiene products, and costs connected to leisure activities. More specifically, the amount is to reimburse costs of “a nutritious and varied diet for all daily meals” (Socialstyrelsen, 2021b, 103).

To make social security schemes as broad as possible, lawmakers have left out definitions for either vulnerable or the poor. Instead, local governments means test individuals applying for social benefits. The underlying criterion is that individuals must be unable to care for their needs in any other way, implying that individuals seeking social benefits must have exhausted any other means of trying to earn a living before applying. Despite these universal ambitions, citizens or people that are otherwise eligible to welfare can still be excluded from accessing an adequate level of food security; citizens can fall through the cracks in the social security systems or can’t make ends meet even with the social assistance. Scholars such as Swedberg and Wolter (2013) discuss that being vulnerable means being excluded from society or living in marginalized conditions, and as result, such people might have fallen outside of the scope of the social security schemes. A report from the Swedish City Mission, a nationwide umbrella organisation for urban charities, shows that most of the organisation’s interventions are aimed at tackling food insecurity among certain groups such as long-term social security recipients and migrants (Sveriges stadsmissioner, 2021).

**Covid responses**

During the pandemic, Sweden opted for an approach to keep society open. COVID-19 was classified as a public health hazard by the government of Sweden in the beginning of February 2020, and it took almost a month before the disease was first confirmed in Stockholm. The whole pandemic period saw a progressive tightening of restrictions to contain COVID-19. By March 2020 several restrictions were put in place as the government and the public agencies sought to lessen the spread of contagion and limit the load on regional healthcare. As the offices stayed open for those unable to work at distance, so did kindergartens and compulsory schools. The initial restrictions meant a closing of cultural and athletic venues and to restrict visits to restaurants, while recommendations were put in place to encourage citizens to stay at home if possible.

The main government strategy for combating COVID-19 was first presented in April 2020 and pointed to the need for maintaining activities critical for the society while limiting the social and economic consequences of the pandemic (Government Offices of Sweden, 2020). In general, the Swedish response relied on individual responsibility rather than what can be considered as the duties of the state. As such, most measures taken were self-imposed by citizens who isolated or kept their distance, without a need for governmental intervention. Early 2021 saw the introduction of the “COVID-19” law (SFS 2021:4). In perhaps the strictest measure put in place during the pandemic period, the law limited the number of shoppers or visitors
at public or indoor places such as businesses or shops, by requiring a space of at least 10m² per customer. The law was in place until the early summer of 2022, and has been abolished since. As of the time of writing, there are no regulations or recommendations in place. With the pandemic ongoing, the government currently relies on public vaccination programmes to mitigate the health hazards presented by the virus.

When discussing the different pathways taken by Eastern and Western governments early on, Yan et al. (2020, 4) adds that “[t]he key here is the sense of individuals’ self-responsibility and high level of trust in Swedish society; these elements are highlighted in a loose culture”. The Swedish government lacked the necessary power to impose area-wide restrictions or the comprehensive lockdowns that took place in other countries. Instead, Sweden saw a bottom-up governance approach where local governments relied on soft-law instruments such as guidelines and recommendations posted by the Swedish Public Health Agency or other expert public agencies, to handle pandemic responses locally. This was tethered with government mandated restrictions banning large public gatherings, limiting table-side food service at restaurants, and imposing mandatory distance education for the senior years of compulsory school and upper secondary school.

The basic presumption of the government’s main responses was to protect the employees by protecting the employers. Several efforts were made to safeguard incomes of businesses or to give companies access to state subsidized furlough. The latter schemes allowed workers to stay at home for limited periods, with 84% of the wage starting from March 2020 to the end of 2021 (Government Offices of Sweden 2022). State interventions were extended to provide the companies hit by economic downturn with other general grants or reliefs from both national and local governments. Hence, temporary loss of revenue was counteracted through tax subsidies or grants. For sectors hit hard by the pandemic, such as hotels or restaurants, more specific interventions were put in place, e.g., efforts to subsidize costs such as rents, or other similar relief activities.

For individuals, the actions taken by the government were aimed at lowering the thresholds for paid sick leave as Swedish statutory welfare, and the national insurance schemes, covered losses in income for individuals unable to work permanently or during extended periods. Other measures introduced for protecting individuals from economic loss due to a leave of absence or sick leave meant a removal of the qualifying period for sick leave, and individuals were exempt from the otherwise needed medical certificates for qualifying into the national insurance schemes.

Key points

VCOs as a leader when statutory welfare lags

In Stockholm, VCOs appear as an indispensable welfare provider, even with the well-developed welfare state in Sweden, because their provision was for the most vulnerable individuals for whom statutory welfare failed to reach. Hence, community welfare services act as a “hidden” complement to the for-granted state welfare. During the COVID-19 period, Stockholm VCOs saw a sharp increase in the need for food relief. Notably, one organisation reported a 250% increase in clients between 2020 and 2021. Another organisation reported that the queues to their soup kitchen had never been longer. Also, as the pandemic progressed and unemployment kept rising, new groups previously unknown to the VCOs, e.g., young adults, families, and temporarily unemployed, started to appear at food banks or soup kitchens.
With the all-encompassing Swedish welfare system expected to play a major role as the breadwinner of last resort, we found that VCOs either acted as a temporary stop-gap measure before qualification for statutory welfare, or they enabled food relief for people unable to formally qualify into the schemes. Whereas state welfare is dependent on strict means testing and evaluation of individual cases, VCOs are attuned to use less red tape. VCOs help using low-threshold services by serving food for all in need through soup kitchens or by means testing individuals to allow for cheap groceries. The organisations also help vulnerable individuals to contact social services, with the purpose of creating more long-term, sustainable means of support.

Voluntary and community organisations (VCOs) as detached from statutory welfare systems on issues of food

During the pandemic, the studied VCOs acted as detached from statutory welfare on issues of food relief due to a lack of dialogue, coordination, and financing between VCOs and municipal government. Yet, all organisations reported that the willingness to donate had never been as strong as during the pandemic, or, as one interviewee said: ‘If you see a glimmer of light in it [the situation, authors’ note], it is that amongst those who have companies, or are private individuals: we have never seen such a high willingness to donate. Whether it is monetary gifts or in-kind”. In the case of food relief, we found that reliance on donors will satisfy demands for food supply. The VCOs are also actively raising either monetary or food donations to stock up on foodstuffs for distribution.

4.2. London
Key information

London is the UK capital city, with around 9 million inhabitants and a population density of about 12,475 per sqm (ONS, 2022). London is organised into Inner and Outer London and 33 boroughs or municipalities which make up the Greater Metropolitan London governed by the Greater London Authority (GLA) and an elected mayor. London has a different governance system compared to the rest of the UK. Indeed, the GLA constitutes a regional/metropolitan body that sits between the national and municipal levels of government. London is also the UK’s main economic engine, with the City of London being its financial centre (£70 bn of economic output generated annually, which equals 3.5% of all UK GVA) (City of London, 2022). In 2019, London had a GDP per head of £56,199, above the UK average of £32,876. The total volume of GDP was approximately £503,653 million, which corresponds to 22.7% of the UK GDP: £2,214,362 million (ONS, 2021). Situated in the southeast of England, which tends to be a wealthier area (with some exceptions), if compared to the rest of England, London presents some extreme pockets of social and income deprivation (Leeser, 2019). Although its local authority districts have seen a relative decrease in deprivation between 2015 and 2019, two London boroughs rank within the 10 most deprived authorities in England: Barking and Dagenham and Hackney (Leeser 2019). The most recent survey conducted by the Mayor of London in 2019 to gauge Londoners’ level of “food security”, also showed that almost two million Londoners, with 400,000 being children under 16, struggle to afford or access food. Poor access to food was reported particularly among children in East London (32%), with the lowest in Southwest London (9%), and, among London adults in need, 40% were black or Asian. The survey also suggests that more than a fourth of parents in London have experienced difficulties in finding enough food in 2018-19 (Mayor of London, 2019).

In relation to restrictions introduced since the onset of the pandemic, “herd immunity”, as an
approach to tackling COVID-19, was considered in the UK early on, but dismissed. A national lockdown and the 2-metre social distancing rule were then introduced on 23 March 2020. All non-essential shops were closed, and non-essential travel prohibited. Gatherings of more than two people outside households were banned, and people were told to work from home. Elderly and vulnerable people had to be shielded, and everyone was encouraged to stay and work from home, with the exception of key workers such as doctors, nurses, bus drivers, police, teachers, etc., and apart from cases involving essential trips such as one daily exercise, buying essential goods (i.e., food, medicines). Mask wearing was not compulsory for the general population (Baker et al., 2021). Subsequently, England went through three national lockdowns (March to June 2020; November 2020; January to March 2021). In between lockdowns, the government-imposed restrictions to social gatherings indoors, outdoors, and in some specific settings (e.g., pubs, bars, restaurants, etc.) (Baker et al., 2021). On 14 October 2020, the government rationalized local restrictions by introducing a “three tier system”, from tier one, less restrictive, to higher tiers with restrictions similar to previous lockdowns. This tiered system was reintroduced in December 2020. After the third lockdown, restrictions were progressively lifted from March 2021 to July 2021, following the roadmap out of lockdown (Baker et al., 2021). Few restrictions were reimposed between September 2021 and February 2022, with a move to Plan B following the spread of the Omicron variant and the unsustainable pressure on the National Health System (NHS). From February 2020, all legal restrictions started to be lifted following the living with COVID plan (Baker et al., 2021).

Welfare and food policy

In their classification of welfare state regimes, Eikemo and Bambra (2010) associated the UK with the rest of the Anglo-Saxon welfare regimes (Australia, U.S.A, Canada, and New Zealand). In this context, state provision of welfare is minimal, social transfers are modest and often attract strict entitlement criteria, and recipients are usually means-tested and stigmatized. The Anglo-Saxon welfare state regime minimizes the decommodification effects of the welfare state, and a stark division exists between those—largely the poor—who rely on state aid and those who are able to afford private provision (Bambra, Netuveli, and Eikemo, 2010). The current British welfare provision has been criticized for not efficiently reaching out to all of those in need (Power et al., 2021; Whitehead, Taylor-Robinson, and Barr, 2021; Food Foundation, 2021) following the British welfare liberalization since 2010, which has seen a shift in approach from a finely grained combination of people- and place-based provision to a more unitary and people-based model of welfare (Bentley and Pugalis, 2014).

Food insecurity at the household level is addressed in the UK by the integration of welfare provision such as Universal Credit, a monthly payment to (means test) households living in poverty, with local government provision including meals on wheels – home-delivered meals to those unable to purchase or prepare their own – and free school meals – provided to school children living in poverty. There is also a nationally acknowledged dependence on foodbank provision that compensates for a retracting welfare state and provides relief and alleviation for the symptoms of food insecurity and poverty at the community level (Lambie-Mumford, 2013). Examples include organisations such as Trussell Trust, UK Foodbank Network, UK Mutual Aid, and the Selby Trust at the national level, but also a myriad of food networks and partnerships which have emerged at the community level to tackle food security concerns locally and across urban sectors (Sustain, 2020a). For example, by 2017 around 50 cross-sector food partnerships were set up in the UK as part of the Sustainable Food Places (formerly called Sustainable Food Cities) movement (Davies, 2017). These organisations typically rely
on formal or informal structures; some are hosted by public sector organisations and staffed by civil servants; others are supported by third sector organisations or are fully independent, with little resources available and reliant on volunteers (Davies, 2017).

Moreover, the UK does not have a unitary national food policy or a dedicated food ministry. Different aspects of food policy are addressed by four government bodies: the Department for Environment, Food and Rural Affairs (DEFRA) – which is the main department involved in the formulation of national food policy by setting national food standards, defining food labelling criteria, except for nutrition or food safety information, and dealing with food imports, exports, and food production; the Food Standards Agency (FSA) – which manages the food safety aspects of food labelling and investigates food-related incidents in the UK (e.g., deceptive labelling and food frauds); the Department of Health and Social Care (DHSC) – which carries out some food-related public health activities (e.g., work on obesity, healthy diets, nutrition, labelling, etc.); and Public Health England (PHE) – which identifies and investigates outbreaks of foodborne infections (Parsons, Barling, and Lang, 2018).

Similarly, at the metropolitan level, British cities do not have dedicated food policies or strategies, and mayors, where in place, have limited powers. However, London is an exception: it has an elected mayor (Mayor of London) and governance body GLA, and it employs a “food in all policies” strategy (Parsons, Lang, and Barling, 2021) to achieve other policy goals such as better health, circular economy, carbon reductions, and community engagement. Two of its city-wide policies speak directly to the Mayor’s ambition to integrate food across the policy and governance spectrum. First, the London Food Strategy (GLA 2018) is a pan-London commitment to food policymaking which recognizes that food is connected to everything Londoners do, and that access to healthy and sustainable food for all is important (Mayor of London, 2018). It signposts London’s concerns about food poverty, child obesity, and unhealthy food environments (Hawkes and Parsons, 2019). The strategy is implemented by the London Food Programme, a city-wide body which aims to integrate food into other London strategies, in partnership with private, public, and third sector partners. Sustain is one such partner which shapes and monitors the delivery of the strategy at the local level via the formulation of food poverty action plans. Another partner is the London Food Board, made of experts from academia, and the third- and private sectors, that provides advice on London’s food priorities. Second, the London Plan (2021) is the city’s long-term spatial development strategy. Although the plan does not refer directly to the London Food Strategy, a number of its policies focus on food issues in spatial context such as healthy food (e.g., healthy foods for all, and restricting unhealthy food options such as takeaways near schools); food access and food waste (e.g., in housing development); and food growing (e.g., in green space, near education facilities; allotments; urban agriculture; meanwhile use; allocation of Metropolitan Open Land) (Mayor of London, 2021). The focus on food growing and urban agriculture has been particularly strong, hence the plan directly supports the Capital Growth Network, which promotes community food growing across the capital, as well as delivering food-growing skills and employment opportunities for Londoners (Mayor of London, 2021).

Finally, at the borough level, the mayor’s powers are limited; however, a range of local governance mechanisms exist to address food issues – see Marceau (2021) for a detailed discussion. The Borough Food Sub-Group (BFSG) is a mechanism to lobby up the governance chain, up to the London Food Board. It is made up of municipal public health and community engagement teams, and its main aim is to reduce food policy fragmentation across
the boroughs at London level (Hawkes and Parsons, 2019). The two strategies that address food at the borough level are the Local Plan – local spatial strategies, relatively aligned with the London Plan (2021), and Food Poverty Action Plans – which translate the London Food Strategy (2018) at the local level. These local strategies are not legally bound by their London city counterparts but take direction from them in relation to the localization of food production via community allotments and urban farming; responsible food consumption and distribution; and food donations and wastage (Mayor of London, 2021). The Food Poverty Action Plans have only started to emerge in London and are a reflection of the mayor’s ambition to tackle food poverty beyond foodbank emergency responses, in partnership with private and third sector actors. They can be initiated by local food networks, alliances or partnerships, the borough itself, or a third sector organisation, have no binding powers, and present only a set of local policy recommendations to improve food security in the borough (Sustain, 2019b). To date, 17 out of 33 boroughs have developed Food Poverty Action Plans in a three-step multi-level process that aims to tackle local food poverty and lack of healthy food, through: food structure (targeting the cost of food and welfare provision), food resilience (looking at food growing space, communities of food, and sharing surplus) and food emergency (where foodbank aid is viewed as a last resort) (Hackney, 2021b). The boroughs’ progress in meeting food poverty objectives against these plans is reviewed every year in the Beyond the Foodbank report (Sustain 2019a).

COVID-19 policies
After the first national lockdown in March 2020, the UK implemented a series of financial measures to mitigate the impact of the COVID-19 restrictions. These policies were carried forward, in a slightly revised form at times, during the subsequent COVID waves during the autumn and winter of 2020 and 2021. Although the funding came from the UK government, many business support programmes were managed by local authorities, which could allow some discretion in the distribution of resources (Hourston and Pope, 2021). The support package provided by the government during the pandemic mainly revolved around wage subsidy schemes that covered a portion of businesses’ wage costs, and short time working schemes that included payments for hours when employees were not working. For example, the Coronavirus Job Retention Scheme covered 80% of the wages of furloughed workers up to a ceiling of £2,500 per month and was in force from March to October 2020, but with further extensions until September 2021, while the Self-Employment Income Support Scheme was introduced to support those who were self-employed (Pope and Hourston, 2021). The government also increased Universal Credit by £20 per week for those on the lowest wages or those who were unemployed (Hourston and Pope, 2021). In addition, the government introduced business support schemes that consisted of a mix of grants, loans, and temporary tax reductions (Hourston and Pope, 2021). These schemes represented a novelty in the universe of UK welfare support programmes (Pope and Hourston, 2021).

Key points
COVID-19 food governance disruptions
The GLA, boroughs, and communities worked alongside each other to mitigate the impact of COVID-19 on food, and third sector organisations such as Trussell Trust, City Harvest, UK Mutual Aid, Foodbank Network, and Selby Trust worked tirelessly to make food accessible at the community level (Turcu, Li, and Xu, 2022). In the beginning, London relied mostly on its existing governance structures to monitor the impact, distribute food, provide financial su-
support, and share intelligence and resources across its territory. However, novel organisations and policies – such as the London Food Alliance, Community Harvest, and Food Transition Plans – quickly emerged at the metropolitan and municipal level to address gaps in access to food. Early in the pandemic, the London Food Board convened a group of some 150 people from across London to discuss emergency food planning. Then, the London Food Alliance emerged in March 2020 with the aim of maintaining a fluid food supply in all areas of London and providing emergency food when necessary while working closely with local food groups and communities (Turcu and Rotolo, 2022). Between March and August 2020, the London Food Alliance helped to distribute 7,850 tonnes of food, the equivalent of 18,692,953 meals (Weeks and Ainsbury, 2020). In July 2020 London’s Capital Growth Network launched the Community Harvest initiative, which provided community gardens with tools, materials, and advice on how to grow more food locally (Capital Growth, 2021).

During the two national lockdowns, most boroughs took a humanitarian approach to local food security issues, as well as offered specific support to food businesses – cafés or restaurants were supported to set up food delivery services in partnership with UberEATS or Deliveroo, or to prepare for re-opening when lockdown restrictions were lifted (Guerlaine, 2020). Since summer 2021, the GLA has been assisting London boroughs developing Food Transition Plans, setting out ongoing arrangements for food support during the transition to recovery, monitoring food supplies, levels of needs, and supporting campaigns for improving food security (Weeks and Ainsbury, 2020). Food Transition Plans are new and unprecedented policy mechanisms, partially overlapping with provision in existing Local Plans and Food Poverty Action Plans, to secure food aid and address growing food insecurity during the pandemic (Sustain, 2020b). Food transition plans also outline how food aid organisations must ensure that residents affected by the economic, social, and health impacts of COVID-19 receive the support they need at the municipal level (Sustain, 2020b). According to Sustain (2020b), the principal activities carried out by London boroughs during the pandemic revolved around the provision of local welfare assistance schemes and meals on wheels services; the implementation or updating of food poverty action plans; the collaboration with the voluntary and community sector (VCS) to distribute food aid and alleviate financial hardship during the pandemic; the creation of new food poverty alliances or food partnerships; and the provision of small grants for community growing projects and support for community gardens in boroughs to stay open during the pandemic.

The case of the London borough of Hackney
Prior to COVID-19, two food governance mechanisms were in place in Hackney: Hackney Food Justice Alliance, previously called Hackney Food Poverty Alliance, and the Hackney Food Poverty Action Plan. The former was established in 2018 to address food security in Hackney via empowering those experiencing food insecurity, mapping existing food justice initiatives in the borough, and improving the circulation of information and best practice around food security. It started as a coalition of over 40 local organisations, to grow and involve, at the height of COVID-19, over 100 organisations from the public health, education, faith, food, and community sectors (Hackney, 2021a). The latter was formulated in 2019, based on the model provided by Sustain and within Hackney’s wider strategy on poverty alleviation. It focuses on three objectives: improving food emergency provision, building food resilience, and preventing food poverty; to be delivered via coordination of and collaboration with local food growers, food waste charities and providers, shops, and market stalls (Hackney, 2019). Novel organisations and initiatives, however, emerged during COVID-19 within
this pre-existing governance framework, including Community Food Hubs and the Hackney Food Network (Figure 2). Right from the beginning of COVID-19 in March 2020, the council provided food parcels for shielding residents via a new helpline and set up three Community Food Hubs for food storage at the London’s Queen Elizabeth Olympic Park, Hackney City Farm, and City of London. It also surveyed the Hackney Food Justice Alliance’s members to understand the support they needed and set up a mailing list to provide updates.

Figure 2: Food governance in London

By July 2020, the council stopped the distribution of food and partnered with the Hackney Food Justice Alliance to form the Hackney Food Network, a frontline delivery network, to address ongoing local food security at the community level (Hackney, 2021b). The Hackney Food Network was established to source food, volunteers, and intelligence, but also to provide advice and support to local communities and food businesses in need, and cater for cultural and dietary needs. To do so, it acted as a new space of governance, relying on over 1,500 volunteers, under the supervision of the Volunteer Centre Hackney. The council also encouraged the formation of local consortia and smaller spin-off networks which enabled organizations in the same locality but with different expertise to collaborate (Turcu and Rotolo, 2022). Often the consortias and networks worked with groups of around five to six providers. As of April 2020, the Hackney Food Network has provided over 400,000 food parcels and cooked meals (Hackney, 2021), while working with Hackney’s other services (e.g., community halls, public health, and social security) and is considered today to be a community partnership network assisting the council on site with the provision of food, but also provides advice and support to the council itself (Turcu and Rotolo, 2022). Today, the Hackney Food Network is working alongside the borough to re-frame its local food poverty policy post-COVID (i.e., Hackney Food Transition Plan), via facilitating place-based collaborations between third sector partners, community groups, and businesses, and by delivering holistic forms of support to residents in need. Hence, it forms a new, still not ‘institutionalized’, space of community-led food governance, which has focused on access to food for all during COVID-19, and it is now starting to impact on food policymaking and governance at the municipal level.

The role of the built environment

During the pandemic, community buildings (e.g., schools, churches, community centres/halls) represented physical community assets, offering direct support to vulnerable people and spaces to store and distribute food in a safe way. Green spaces, car parks, food markets, and any other form of outdoor space have also been very important both for social interaction and
food distribution during the pandemic, especially for people living in council estates. Some community buildings/spaces were identified as food hubs. Food hubs needed to be accessible from the road network to allow big trucks to deliver food. Hackney has been working with its local community premises, by bringing in community partners to redistribute food. It also designed the Hackney Food Bank as an eligible space for food storage.

With respect to urban agriculture, the Community Harvest initiative (July–October 2020) provided additional access to fresh, healthy, and affordable food; and helped urban gardens and growers increase their production and reach out to people and groups, particularly those who were most vulnerable (e.g., older people, those with health conditions or with disabilities, and people on a lower income). Gardens reached and built long-term relationships with community organisations. An estimated 5.5 tonnes of hyper-local fresh food has been shared with/distributed to an estimated 6,945 households. Produce valued at over £30,000 were distributed to recipient organisations such as mutual aid groups, food banks, children’s centres, a women’s centre, lunch clubs for the elderly, and residents of a local housing estate.

4.3. Wuhan

Key information

Wuhan, the capital of Hubei Province in the People’s Republic of China, is the largest city and the commercial centre of Hubei and the most populous city in central China. Greater Wuhan sprawls over 8,569 km² with 11.2 million people, 9 million of which reside in 902.5 km² of urban area. Wuhan is a transport hub linking other parts of the province and the country by road, train, boat, and flights. London and Wuhan have a similar city size and population in the greater city regions. However, Wuhan has a much higher population density (2210/km²), with its population much more concentrated in the urban built up area (9972/km²). People live in high-rises with a large number of residents. On average, each community has 1,000–3,000 households. Some of the largest residential complexes have nine residential sub-communities with more than 180,000 residents in total. The largest sub-community has more than 5,000 households living in 30 residential buildings.

Welfare policies in China/Wuhan

Wuhan, as do other cities in China, represents a productivist welfare regime (Mok and Qian, 2019). In the literature, a “productivist” welfare state human capital investment is supposedly the primary focus of social expenditure. In China, the social protection system includes a contribution-based social insurance system in which full-time employees benefit more than other residents and that provides supplementary means-tested social assistance for those suffering from absolute poverty (Li, 2016; Hudson, et al., 2014).

The Chinese government plays a major role in food supply to cities. With a recent history of famines, food security has been one of the national priorities that influenced policies on land supply, urbanization, and farming subsidies (Deng, Xu, Zeng, and Qi, 2019). Each city is twinned to multiple rural counties. In 1988, the Ministry of Agriculture introduced the Shopping Basket Program (cailanzi gongcheng) to secure local food supply to cities (Wang, Rozelle, Huang, Reardon, and Dong, 2006). More recently, food supply was “digitalised” to guide production and avoid mismatch between supply and demand and control price fluctuations. There are also central and city-level food reserve systems for important food products such as fresh vegetables (Wu, Shan, Guo, and Peng, 2017). As average urban household income increases, customers demand better quality food and imported food. Hence, China has
become the largest food importer in the world. In 2019, China imported agricultural produce of a total value of USD150.97 billion (Agricultural Trade Promotion Center of the Ministry of Agriculture and Rural Affairs, 2020).

In China, vulnerable households primarily rely on the support of families or extended families. People who cannot receive support from kinship networks receive support either through home-based care or institutionalized care. Entitlement is determined through means testing. At the national level, China, with its agricultural planning and extensive food reserves, appeared less exposed to sudden shocks. COVID-19, however, resulted in the temporary suspension of agricultural production and unexpected restrictions in transportation.

Before the pandemic, in 2017, there were 53,089 restaurants in Wuhan employing about 500,000 employees. These included 969 large restaurants, 2,723 medium-sized restaurants, 12,700 small restaurants, 26,074 snack bars, 2,506 school canteens, and 8,117 collective canteens and other catering units. For older people (65+), urban communities offered community canteen services. The food was subsidized by the government (10 yuan/meal). According to the planning target, a housing estate should have access to a canteen within 15 minutes of walking distance. The first canteen was opened in 2013, and by the end of 2019 there were 100 canteens. The customers went to the canteens to eat, take away, or order food to be delivered to home (Li et al., 2019). Public-funded social service institutes such as eldercare institutions, child welfare institutions, mental health facilities, veteran welfare institutions, and schools, had canteens. City relief stations offered temporary shelters for people who had nowhere to go. In Wuhan, three relief stations hosted about 10,000 people each year. Not everyone would be qualified to stay in welfare institutions or city relief stations. Restaurants, markets, and supermarkets often gave away food, especially after the trading hours.

COVID responses
COVID-19 was first identified in Wuhan in December 2019. As of 23 December 2020, 50,340 cases were identified, and 3,869 people died in the city (Google coronavirus disease statistics, 23 December 2020). Wuhan experienced two waves of lockdowns. The community outbreak of the pandemic took place not long before the Chinese New Year break in February 2020. In this period, people would travel to hometowns or villages for family gatherings, or travel in the country and abroad for vacations. The Ministry of Transportation estimated that the total number of journeys for 2020 would be 3 billion, the largest human migration in history (Bloomberg News 20-01-2020). During the festive season, the peer pressure for socializing would be high. As the transport hub of central China, all traffic in and out of Wuhan was closed, with city authorities controlling population mobility. Only resources and activities that were necessary for fighting against the pandemic and for life support were allowed.

Wuhan was shut down at 10 am on 23 January 2020. The constrictions became tighter after the initially not-so-tight control from 11 February 2020. Each household could only send one family member out to purchase daily necessities once every three days. The lockdown became the strictest of its kind. The whole city was under tight traffic control. Only transportation of necessities was allowed upon approval of community authorities. From 18 February, residential communities were all locked down. Each housing estate could only keep one guarded exit. The guards were responsible for temperature measurement, registration, and granting access or exit. Residents were not allowed to go out, except in the case of key workers or those needing medical care. None-residents were not allowed to enter an estate without special
permission. The lockdown lasted 76 days, until 7 April. Since then, residents have to use a track-and-trace health code as they travel (Liang, 2020).

After Wuhan was fully reopened, the city life gradually returned to normal. There were occasional local cases whose close contacts and community residents were required to socially isolate at home. A more significant outbreak happened in August 2021 when new cases emerged, and 56 workers were infected on a construction site. By 5 August, 104 estates and 11 construction sites were locked down again. After a whole-city testing and contact tracing programme, the outbreak was under control. By 22 August, the city was open again.

Since the reopening, people have had to use a health code to go to public places and travel out of the city. They also had to scan a QR code to trace their path (Liang, 2020). Since then, there has been no city-wide lockdown. However, when new cases were identified, the estates with confirmed cases would be locked down, and the rest of the city could remain open. The opening up of the city was gradual. Starting from 25 March, migrant workers with Green Health Code were able to return to work. Shopping malls started to return to normal businesses. With Green Health Code, residents living in communities with no confirmed cases could go shopping after a temperature test, wear a mask, and follow social distancing rules. This means communities with confirmed cases and those without were treated differently.

National and provincial levels

In the first pandemic wave, after the residents complained about the soaring food price, the Ministry of Agriculture ordered the agricultural sector to “do everything possible” to increase production while keeping prices more or less stable (China News, 2020). The Hubei government also published more details which required that, starting from 22 January 2020, the prices of goods and services should be fixed at the same level as on 21 January 2020. Some shops and supermarkets that charged higher prices were fined heavily (Changjiang Grocery Media, 2020). If the purchasing price increased, difference between purchase and sales would stay the same as before 21 January. When there was no reference to the original price, the difference between purchase and sales should be capped at 15%. Price manipulators would be fined or prosecuted (Xinhua News 28-01-2020). However, the government did not state how to enforce the rules.

Apart from price control, there were also efforts to guarantee supply. Different government department agencies and state-owned enterprises took up different tasks. For example, two giant state-owned food suppliers received government orders to source more rice, flour, cooking oil, and meat for Wuhan. The Hubei government took control of slaughterhouses and paid refrigeration costs to sustain the livestock and eggs. The agricultural department was responsible for staple food production and procurement (FAO 2020).

On 25 February 2020, the Hubei Provincial Headquarters for the Prevention and Control of COVID-19 issued a notice to provide rescue services to non-locals who were stranded in Hubei and needed help. Some stayed in the city relief stations, and some were sent to shelter hospitals where they could quarantine. A network of disability support with 276 NGOs was organized to offer emergency support to people with a disability after the case of a death of a disabled child was exposed. Initially, social workers were sent to care for people with a disability, but it turned out to be an unsafe solution. Therefore, they were also sent to quarantine stations to be looked after by professionals (Guangming Daily, 2020). In extreme cases, some
homeless people started begging. The urban management authority sent their staff members to patrol the street and send the homeless people to the quarantine sites.

**City level**

At the city level, Wuhan faced temporary food transportation issues at the beginning of the lockdown due to routes being closed, but the problem was solved quickly via the coordination, in three initiatives, of: 1. opening dedicated food transport routes including road and waterway into the city; 2. signing agreements on food supply between the city and provincial governments; and 3. opening the city grain reserve (L Wang, 2020). The Ministry of Agriculture ordered the agricultural sector to increase production while keeping prices flat (Teller Report, 2020) and food sellers charging higher prices were heavily fined (China Foundation News, 2020). The government commanded giant state-owned food suppliers to secure the supply of rice, flour, cooking oil, and meat to Wuhan and paid for some of the services (Cullen, 2020). One month into the lockdown, the Wuhan Public Transport Group deployed 520 service buses and public service vehicles to deliver the “last-mile” food supply from 165 supermarkets and food outlets to entrances of residential communities. Direct purchase from surrounding farms was activated through online booking, allowing access to fresh and nutritious produce.

If the responses in the first wave were reactive, in the second wave in August 2021, the government became much more proactive. On 4 August 2021, the Wuhan Municipal Market Supervision and Administration Bureau published a document titled “The implementation plan for price supervision during the pandemic prevention and control period”, which requires (The Paper 5 August 2021):

1. diligent inspections of all types of markets and monitoring supply and prices;
2. setting up fast complaint hotlines which will investigate the cases in 2 hours after receiving the complaints, and lawbreakers will be sued in 1 day;
3. the person responsible for price speculation to be interviewed, exposed in the media, and punished severely;
4. hiring more grid masters to inspect all the markets; and,
5. setting up supervision teams to guide on site.

In the second wave, the local government certainly had learned from the previous experience and focused relentlessly on delivery.

**Local/community Level**

At the community level, Wuhan households did not have time to prepare as the city was locked down suddenly on 23rd of January. Residents living in gated communities realized that they could not shop for food, which caused public uproar and prompted the government to take responsibility for food supply. Neighbourhood-level governments were in charge of food supply (Jiedao). WeChat groups were set up for each “unit of management”. Wuhan residents organised “bulk buy” (Tuangou) via WeChat to minimize the number of deliveries and buy cheaper goods. Upon delivery, residents fetched goods by appointment using applets on WeChat to avoid personal contact. For people in isolation, food was delivered to their doors or entrance of buildings.

However, once the delivery volume increased and the residents could not go out of the gates, it was impossible to rely on residents’ efforts only. New arrangements had to be in place to
facilitate in-community food sorting and pick up or delivery. Although the government took over the responsibility of food supply from the residents to solve the problems, it did not have enough labour to take up all the new tasks. The usual community governing officials focused on disease control rather than meeting the need for food delivery.

Consequently, there were complaints about low food quality, losing products, and service inefficiency. According to field research by Chen et al. (2020), on average, 8–10 staff members in each community were responsible for an average of five communities, which meant each staff member had to support 300 residents. All these residents staying at home all day long did not help. While multitasking, community staff members answered hundreds of phone calls per day and faced criticisms or even verbal abuse. Several solutions were introduced to fix the labour shortage issue:

• Starting from 26 January 2020, the government demanded CPC members and government officials to support the work in the communities. This practice was called the “downward dispatch of higher-level officials” (ganbu xiachen) (Mei, 2020). Later, the public sector employers also instructed their employees to volunteer. There were around 580,000 CPC members who volunteered in the communities in Wuhan (Zhu and Cai, 2020).
• Property management companies started to function as community coordinators to support food delivery (Qian and Hanser, 2021).
• Each building had a person in charge. There were also floor managers in large buildings with a dozen households on each floor. They lived in the same building or on the same floor they were responsible for. WeChat groups were set up for each unit of management. The groups were also responsible for answering questions.
• Volunteers were important. They were residents in the communities and could be from various backgrounds. As the lockdown continued, more and more people were willing to volunteer, as their employers and unions encouraged. Sometimes, employers set targets to motivate employees to volunteer in the communities they lived in.

During the lockdown restaurants were closed, but they quickly shifted into takeaway and home delivery services. To ensure safety, food delivery businesses acquired safety certificates and food deliveries were provided with PPE. Relief stations in Wuhan cater for some 10,000 people, including homeless or rough sleepers, every year. During COVID-19 they provided assistance to non-residents stranded in the city. Social care institutions (i.e., elderly care, child welfare, mental health care, etc.) and schools provided meals to those in attendance.

Outside the residential estates was the sphere of state and businesses. The government departments became more engaged and better coordinated. For example, to increase the variety of food, multiple government departments worked together to facilitate shopping: a. The Wuhan Bureau of Commerce announced 33 online shopping platforms; b. The Transportation Bureau introduced an app for issuing electronic passes; c. the Agriculture and Rural Bureau announced a list of 63 aquaculture units, and 25 suppliers for group purchase of eggs.

Inside the residential estates, property management staff, building and unit masters and volunteers also formed a relatively stable governing structure that allows people to pick up food in an orderly manner. This governing structure inside the residential estates also helped develop neighbour support for, or deliver government-subsidized cheaper food to, vulnerable groups such as older and pregnant women (Qian and Hanser, 2021).
Key Points
The experience of Wuhan was not a story about the authoritarian government locking everyone in and giving orders, which the public just passively followed. The experience of Wuhan showed that the state, the private sector, and the communities all played vital parts. They did not collaborate at the beginning. As the lockdown continued, a collaborative governing structure emerged through trial and error. This collaborative structure involves the “whole-of-government and the whole-of-society”.

Compared to traditional food retailers, digital platforms have several advantages in the “last-mile” food delivery. First, digital platforms have technical expertise in applying digital technology to process online food orders efficiently and accurately. Second, digital platforms are experienced in logistics and have developed food delivery infrastructure. Compared to supermarkets, these platforms host a large number of food deliverers. In some cases, digital platforms utilize their Artificial Intelligence (AI) research and deploy autonomous vehicles or drones to deliver food. Lastly, digital platforms have collected a huge volume of user and geospatial data, allowing efficient purchasing and delivery.

During the lockdown of Wuhan, digital platforms provided technical support for supermarkets to shift their services online. The platforms support these supermarkets in several ways. First, local supermarkets/farms were more willing to embed mobile apps in major digital platforms. Second, digital platforms provided technological support for the supermarkets to develop their apps. For example, in early 2020, Alibaba supported Wuhan’s Auchan supermarket in developing a mobile app in one week. The mobile app, which usually took more than two weeks to develop, was able to process community-level online orders to meet the requirement of lockdown (Changjiang Daily, 2020).

Via mobile apps, major digital platforms hired even more food delivery riders after the outbreak of COVID-19. Nationwide, between 20th January 2020 and 18th March 2020, over 336,000 newly registered food delivery riders were under Meituan, a major food delivery company working for the digital platforms. Twelve thousand riders worked through the lockdown in Wuhan (Meituan Research Institute, 2020). In some “high risk” areas (e.g., hospitals), JD.com deployed autonomous vehicles. The company started autonomous vehicle research back in 2016. The autonomous vehicles were deployed to deliver essential goods from major distribution centres to hospitals (United Nations News, 2020).

Big-data analyses were conducted using large quantities of personal data to enhance operational efficiency, reduce costs, and control risks. For example, some platforms established preposition warehouses storing fresh vegetables and seafood in Wuhan during the lockdown. These warehouses were located close to the local community (average distance from households ranged between 1–3 kilometres), and platforms could provide fresh food to households in one hour (Liu and Wu, 2020). The big data also supported riders to plan for the most efficient delivery routes. For supermarkets that had just started the home delivery business after the Wuhan lockdown, which routes to deliver food and notify households largely rested on riders’ ad hoc decisions. In contrast, with the big-data support, platforms used algorithms to match riders with households quickly and efficiently (Changjiang Daily, 2020). Also, with the support of the large volume of geospatial data from platforms, households could easily monitor and track the delivery.
Group purchase started in China as early as 2016 but became much more popular after the outbreak of COVID-19 (Lin, 2020). In Wuhan, the major digital platforms companies, Alibaba Group, Tencent, JD.Com, Meituan, and Pinduoduo, all supported community group purchases. Because of the lockdown, groups were organized among residents living in the same housing estates. By 3rd March 2020, the 2,000 housing estates in Wuhan all started group purchase.

4.4. Singapore

Key information

Singapore now is ranked among high-income countries. In 2019, the GDP per capita of Singapore amounted to approximately USD 65,000 compared with USD 32,000 in Korea (The World Bank, 2022a). Among the current 5.7 million population, 3.5 million are citizens and 0.5 million permanent residents. The other 1.7 million people come from all over the world on work permits, study passes, or other long-term or short-term visas. Singapore also has 200,000 citizens working, studying, or living in other countries, including more than 10,000 students overseas.

From a recent survey, over 80% of people resided in public housing; 90% of public housing residents owned their houses in 2015 (Department of Statistics and Ministry of Trade and Industry, 2016), compared to approximately 29.4% in the 1970s (Chia, 2015). This rate is considerably higher compared with other East Asian economies. For example, the ownership rate in Hong Kong was only about 51% in 2014. Publicly constructed housing on state land on a 99-year lease was started in 1927 by the British government, under which Singapore was a part of the colony of the then-Straits Settlements comprising Singapore, Malacca, and Penang. The statutory board was called the Singapore Improvement Trust (SIT), which was replaced in 1961 by a new statutory board—Housing Development Board (HDB). HDB’s scope covered the entire Singapore island as the government commenced a scheme of land acquisition from private landowners in the rural areas of Singapore. As a result, the HDB was able to construct public housing over the entire island, which could house the majority of the population. HDB flats’ size ranged from 1–4 bedrooms (Housing and Development Board, 2022).

There were about 300,000 foreign workers, who come from countries including Bangladesh, China, India, and the Philippines, among others. These foreign workers live in dormitories (The Economist, 2021). There are now 53 such dormitories (Ministry of Manpower, 2022). These licensed dormitories hosted more than 1,000 workers each. These dormitories comply with the requirements under the Foreign Employee Dormitory Act, to provide facilities that include sick bays and isolation rooms (Ng, 2020).

Welfare regime

Singapore represents a productivist welfare regime which provides occupationally stratified social protection mainly to state employees and productive labour in productive firms (Lee and Qian, 2017). Basic social security remains as means-tested social assistance or family responsibility. The Singaporean welfare regime belongs to the East Asian Welfare regime—a productivist welfare state (Holiday, 2000), in which human capital investment is supposedly the main focus of social expenditures. Singapore ranks remarkably high in human development indexes (e.g., education performance indicated in the Programme for International Student Assessment (PISA) and health outcomes in life expectancy), even when compared
with developed countries. However, the government size of Singapore is relatively small. In 2015, the total government expenditure accounted for approximately 17% of GDP, which is significantly lower than Organization for Economic Co-operation and Development (OECD) countries, as well as other East Asian developed economies (e.g., 31.8% in Korea and 42.5% in Japan). The social expenditure is even lower in Singapore given its government size. For example, the government health expenditure in Singapore accounted for 1.34% of GDP, whereas that in Japan and Korea accounted for approximately 8.32% and 3.82% in 2011, respectively (The World Bank, 2022b).

Singapore was severely affected by SARS and H1N1 in 2003 and 2009. Social distancing was implemented in Singapore during the SARS era (Lai and Tan, 2012). Singapore has invested a lot of resources since 2003 to strengthen its capacity, improve its system, and prepare for future epidemics. It has established a multi-ministry task force mechanism which can be activated in a whole-of-government manner, once a public health crisis occurs. Food supply is one area of the contingency plan (Lam, 2020). During SARS, the community was also mobilized to work together under the social distancing regulation. It was reported that neighbours was sending food and groceries to those under quarantine during SARS (Centre for Liveable Cities, 2020).

A new agency, Singapore Food Agency, has been overseeing food security, food logistics, and food safety issues from April 2019, consolidating duties from Agri-Food and Veterinary Authority, National Environment Agency, and Health Sciences Authority. There were 1,150 staff working in the Singapore Food Agency. Singapore imported more than 90% of food from over 160 countries. In 2019, 10% of fish, 14% of leafy vegetables, and 26% of eggs were produced locally (Singapore Food Agency, 2022). In 2019, the Singapore government set a policy target, the “30 by 30” goal, to increase local production to meet 30% of Singaporeans’ nutritional needs by 2030 (Tortajada and Lim, 2021).

Although the overall government social expenditure of Singapore is smaller compared with some other countries, the role of the state in the social policy areas, with regard to the political and economic contexts, is significant. The government has designed and implemented social policies that play a supportive role in export-oriented and foreign investment-led economic growth strategies. For example, high-quality labour supply has been supported by policies promoting education and health care services. The public housing policy is helpful in providing shelter for workers, thereby raising productivity.

**COVID responses**

After the outbreak of COVID-19 in early 2020, the disruptions to economic activities had been kept moderate. Schools and shopping malls were not closed, and people still could commute to work. The government’s objective was largely to balance the demand of maintaining economic activities with health security. The government set up a multi-ministry taskforce for COVID-19 with representatives from all ministries. The tasks of the taskforce included an effort “to direct the national whole-of-government response to the novel coronavirus outbreak” and “coordinate the community response to protect Singaporeans” (Ministry of Health Singapore, 2020).

From the start of the outbreak, Singapore’s main measures for epidemic prevention and control were as follows: (1) strengthening border control to reduce imported cases; (2) imple-
menting detection, tracking, and isolation; (3) implementing social distancing with highlighting personal hygiene and social responsibility.

From 24 March 2020, all short-term visitors were not allowed to enter or transit outside the country. Among those with working permits, people who worked in specific service areas (such as healthcare and transportation) were however allowed to, and their families could also enter or return. All returned citizens, permanent residents, and long-term pass holders had to isolate for 14 days and were not allowed to go out.

The Singapore government-imposed measures to limit gatherings outside of work and school to 10 persons or fewer took effect from 27 March 2020. From 24 March, all bars and entertainment venues like nightclubs, discos, cinemas, theatres, and karaoke outlets had been closed (Ministry of Health Singapore, 2020a). All religious services and congregations had been suspended. In workspaces, if employees could perform their work by telecommuting from home, employers ensured that they could do so. The penalty for violating the safe distancing measures was a fine of up to $10,000 or imprisonment of up to six months, or both.

However, the number of community cases increased significantly around late March 2020, and there was an increasing proportion of unlinked community cases. An “elevated set” of social distancing measures, as a “circuit breaker”, were implemented from 7 April 2020. All restaurants, hawker centres, coffee shops, food courts, and other food and beverage outlets remained open only for takeaway or delivery. Except for essential services such as healthcare, social services, financial services, and cleaning services, Singapore residents and foreign workers were asked to stay at home (Ministry of Health Singapore, 2020b). The social distancing measures proved to be effective, as the daily number of community cases came down to single digits in late May (Ministry of Health Singapore, 2020c). The phase of the “circuit breaker” closed on 1 June 2020. Another lockdown was implemented between May and June 2021 when a new variant of COVID, delta, emerged.

Digital technologies played an important role in food delivery during the pandemic. New mobile apps were developed such as e-payments for hawkers, delivery services and cloud kitchens, and community-based apps to match volunteers with seniors needing help (Centre for Liveable Cities, 2020). While restaurants, hawker centres, coffee shops, and food courts closed during lockdown, digital platforms played an important role in food delivery. Up to 2020, digital platforms Foodpanda, and Deliveroo had 8,000 and 6,000 riders respectively for meeting any surge in demand. Foodpanda does both food and grocery delivery, while Deliveroo focuses on food.

During the “circuit breaker”, last-mile food supply became a major concern for disadvantaged groups including low-income households, elderly, disabled, and foreign workers. As hawker centres were closed, many people had difficulties accessing cheap catering services. Also, elderly and disabled people had difficulties ordering food deliveries online. Foreign workers who stayed in a dormitory had restrictions accessing cookery facilities (Lim, 2022). Food delivery to foreign workers was another issue. Many low-income households resided in public housing (i.e., HDB). In 2020, eligible households living in 1–2 room HDB flats received grocery vouchers worth $300 (Begum, 2020).

Migrant dormitories were particularly difficult to deliver food to. Charities, NGOs, social enterprises, voluntary groups, and other actors in the private sector played an important role
in food delivery to dormitories. COVID Migrant Support Coalition, a voluntary group, has delivered food to foreign workers since April 2020. A major bank in Singapore, DBS, collaborated with two local non-profit organisations, The Food Bank Singapore and ItsRainin-gRaincoats, to provide food for the elderly, those on low-income, and foreign workers (Eber, 2020). It was estimated that NGOs in Singapore were helping to deliver 7,000 meals a day to workers in April 2020 (Campbell, 2020).

Key points
After COVID, Singapore started to allocate more budgetary expenditure for transfer programmes, deviating from the developmental state model. For example, in the 2022 budget, S$1.8 billion per year was allocated to a new progressive wage credit scheme to co-fund the wage increases of lower-wage workers between 2022 and 2026. Further, the government now allocate more of their budget to encourage community giving. The budget has included matching grants for charitable giving, as well as support for charities to build capabilities. Also, the government implemented new standards for all new dormitories for foreign workers. Food supply is being taken into account in the new standard. Communal facilities in new dorms – such as cooking, dining, and laundry areas – must also be designed for dedicated use by up to 120 residents per section.

There are three major policy implications drawn from Singapore’s experiences. First, on food accessibility during the pandemic, the government’s financial support to vulnerable groups including the elderly, low-income households, and foreign workers should be increased. These disadvantaged groups are more likely to suffer from adverse financial shocks from the labour market. Second, regarding food security, the diversification of the sources of the food supply is important for a city-state such as Singapore. The international trade and food supply chain, therefore, are critical in this context. Third, the roles of communities and private sectors such as digital platforms in food delivery were important during the lockdown. These platforms can support last-mile food supply through their strong logistic capacities.

4.5. Sydney
Key information
The Commonwealth of Australia is a federation of six states which, together with two self-governing territories, have their own constitutions, parliaments, governments, and laws. Constitutional responsibility for local government lies with the state and territory governments. Consequently, the roles and responsibilities of local government differ from state to state. Local governments are also known as local councils (Parliamentary Education Office, 2022).

Sydney, capital of the state of New South Wales, Australia, is the largest city in the country. As of June 2020, Greater Sydney (which includes a number of surrounding national parks), has 5,367,139 people spreading out on a site area of 12,368 km². Within Sydney’s city area, the density is 9,301 per km². The communities of Sydney city represent a wide diversity of cultural and social backgrounds, with 54.9% of local residents born overseas and 41.3% speaking a language other than English at home.

Sydney is Australia’s most popular international tourist destination. Over a 12-month period prior to the outbreak of the pandemic, the Sydney metropolitan area hosted over 4.1 million international visitors – over 18% came from China (City of Sydney, 2020). Sydney is also
ranked the top destination for international students. The number of international students studying in Australia reached a new peak prior to the outbreak of the pandemic in 2019, with 358,548 studying in NSW, accounting for 39% of the national total. Ninety-nine per cent of these international students stayed in Sydney (Department of Education, Skills and Employment, 2020).

**Food security and governance in Australia and Sydney**

Australia produces much more food than it consumes, exporting around 70% of its agricultural production. Imports account for around 11% of food consumption by value (Kent et al., 2020). The imports provide variety rather than shortages. Therefore, disruptions to international supply chains are about limiting consumer choice and would not affect the country’s food security. In this sense, Australia should be, in theory, one of the most food-secure countries in the world. However, food supply can be disrupted locally as a result of stress in the logistic system. For example, the current logistic system would only allow for a few days’ buffer in fresh food supply in Sydney. Australia also includes food security for the vulnerable groups from low-income households as part of the national disability services, aged care (including home-based care and care homes), or school meal services. Changing trends in food demands, creates a competitive advantage over other products because of their freshness, locally grown and no food miles involved.

Before COVID-19, Sydney’s food security practices included: 1) community gardens; 2) school breakfast clubs for pupils from vulnerable backgrounds; 3) financial counselling to address long-term issues; and 4) lists of local budget markets or food shops. Foodbank Australia is the country’s largest food relief organisation, providing more than 70% of the food relief nationwide. It works with the entire food industry, 2,400 charity partners, and 2,500 schools across Australia. Emergency relief packages were available to people advised by NSW Health to self-isolate who could not afford food, had no family or networks to help them with food shopping, or had no access to food delivery services (Service NSW 2020).

**The welfare regime of Australia**

Historically, Eikemo and Bambra (2010) labelled Australia as an Anglo-Saxon liberal welfare regime, which means state provision of welfare is minimal, social transfers were modest and often attracted strict entitlement criteria, and recipients were usually means-tested. In this model, the dominance of the market is encouraged both passively, by guaranteeing only a minimum, and actively, by subsidizing private welfare schemes. This label was probably accurate for the Australian welfare system in the immediate post WWII period. But as Esping-Anderson’s three welfare capitalist regimes were published, Australian scholars immediately challenged the tendency to label Australia as a “liberal” indiscriminately from those of the UK and US (Castles and Mitchell, 1990). Their argument is that Australia’s welfare state has never had the Poor Law system as seen in the UK, and the state has actively introduced wage regulation, which guarantees decent pay, even for the informally employed. This has, unfortunately, not been given sufficient attention to by European scholars. After years of experimentation, Australian experience shows that a high minimum wage indeed co-existed with high employment rates (Wilson, 2017).

Australia has long established the principle of making work pay, and now has one of the highest minimum wage levels: $21.38 per hour (or $812.6 per week for a 38-hour week). Starting from 2013, Australia has self-identified as a welfare state with an investment approach which values the health and social benefits of employment and the welfare state invest in peo-
ple early on so that they can gain the capacity to be employed in the future. Differently from the productivist approach, in Australia, the most vulnerable population will still get help.

**COVID responses**

Sydney entered its first full lockdown in early 2020. First cases in Australia were reported with incoming travellers on 25 January 2020, and by the end of March, a full set of national lockdown rules were introduced (Australia Government Department of Health, 2020): schools introduced social distancing (15 March); all public events with more than 500 attendees were cancelled (16 March); public gatherings were limited to two people, and people could only leave home for essential activities such as work, shopping, and exercise (30 March). Throughout the period, borders between states were closed and law was strictly enforced to ensure compliance. People failing to self-isolate were fined AU$11,000 or imprisoned for six months (Peters, 2020). On 8 May 2020, Australia saw the first easing of lockdown rules, which continued to relax until the beginning of July. On 8 July the borders between states closed again, following a large spike in cases in Melbourne. Sydney started to have an increased number of cases in the Northern Beach area in late December 2020, and some restriction measures were reintroduced to some communities. By 23 December 2020, 4,789 COVID-19 cases and 53 related deaths were reported in the state of NSW, where Sydney is located (Google Coronavirus disease Statistics 23 December 2020).

The second round of large-scale containment measures was announced in June 2021, when four of Sydney’s largest local government areas entered a snap seven-day lockdown. In August, the mobility restrictions expanded to the rest of the city, where Sydneysiders could only travel 5km from home to exercise or shop until 11 October 2021 (Australian Bureau of Statistics 2022). Since October 2021, Sydney has not returned to lockdown measures and people are encouraged to wear masks on public transportation when new virus mutations appear.

There is a cultural preference for low-density living in Sydney, which makes it more difficult to coordinate last-mile food issues at scale. The difficulties to collectively provide food also mean that it is not realistic to introduce full lockdown. Throughout Sydney’s lockdown, people were allowed to do shopping. The pandemic control measures emphasized more on contact tracing and social distancing. The government took a partnership approach by nudging and regulating the private businesses to work together with the NGOs and the civil society. During the more relaxed period, people could go to restaurants while maintaining social distancing and wearing a mask.

In the early days of the pandemic, people panic-stockpiled food and other necessities. Prior to COVID-19, major chains had cut the number of distribution centres, which did not help with the COVID-19-related burst in food demand within a short distance. Hence, new supermarket distribution centres had to be opened and dedicated morning hours for older people to buy food were implemented (Pearlman, 2020). The government also worked with supermarkets to impose purchasing limits (StClair, 2020). Sydney was subject to government-imposed price control, and traders were asked to justify price increases on essential items. Traders who failed to comply received a public warning under section 86A of the Fair-Trading Act (NSW Government, 2020).

The government provided $50 million in funding for meals on wheels and similar services to support older people requiring prepared meals. This was in addition to the $70 million in fun-
ding made available to Commonwealth Home Support Providers, including meals on wheels, which was facing extra costs as a result of the impact of COVID-19. The government worked with commercial providers who had been supporting airlines and the entertainment industry, and had spare capacity, as well as local catering businesses, particularly in regional areas, to see how they could continue operation and assist in providing prepared meals to support vulnerable older Australians through the Commonwealth Home Support Programme. The government has worked with a number of grocery suppliers, including Coles and Woolworths, on priority access to their online and telephone shopping service for older and vulnerable people. Older people registered with My Aged Care could provide their My Aged Care ID number either through the online form or over the phone to access priority delivery. My Aged Care can help older people who cannot use the internet to access basic food and groceries. It connects older people to a service provider to ensure they have the ongoing support needed. An additional $9.3 million in funding has been provided to My Aged Care to ensure that they could support vulnerable older people.

The NSW government has teamed up with both the Foodbank and the Rapid Relief Team to deliver emergency relief packages and food boxes to people in need. Emergency relief packages are available for people who have been directed by NSW Health to self-isolate, and who can’t or are genuinely struggling to afford food and groceries, have no family or friends able to help them with shopping, and have no access to delivery services.

Australia has a large number of international students who were stranded in Australia. They may suffer from food shortages because of loss in income and support. Sydney opened the emergency food relief channels for international students. Local councils engaged community-initiated NGOs to deliver food assistance. Hyper-local and alternative food initiatives adapted or popped-up to close the gap in last-mile food security, strengthening the resilience of the food system (Parsons, 2020). Some communities designed programmes to educate people on nutrition through home cooking at times of disruption.

Three types of community-based organisations become heavily engaged in relieving food insecurity: 1) religious groups who have been traditionally playing a role in charity and now broadened the scale of beneficiaries to the wider population including international students (e.g., Uniting Harris Community Centre and Anglicare); 2) organisations providing refuge to disadvantaged groups (e.g., Lou’s Place) whose mission is to help women in crisis; and 3) environment-advocating organisations whose initial mission is to rescue food from being wasted and reducing carbon footprint (such as OzHarvest and Addi Road Food Pantry). With local government subsidies, these organisations provide meals and grocery services throughout NSW. The community organisations receive supplies from the Food Bank and/or other private businesses such as food producers, supermarkets, and food stores.

Obviously, there had been shocks and stresses throughout the pandemic response period. For example, there had been some longer queues for food relief, there had been less volunteer supply during the lock down. This has led to that food charities are concerned about their ability to be resilient and cope with natural disasters more severe than COVID-19. Sydney, or more broadly New South Wales in Australia, is probably a good example of food resilience that harnessed the contribution of actors from different sectors during the pandemic. For the time being, the system seems to be able to respond to the pressered points in a timely manner.
Key Points

The Australian model showcases strong civil society and the willingness of the government to assume a coordinator’s role at the time of emergency. This state-market-society relation was developed through the experience of managing past epidemics such as influenza and bird flu and natural disasters such as the annual bush fires.

It has a strong culture of community support and the government’s willingness to nudge the private sector to get involved. It also did not have a food shortage problem at both the national and local levels. Apart from addressing the issues with food prices and accessibility as discussed earlier, the main concerns are in the field of migrant support. The country’s farming and service sector labour supply depends heavily on short-term migrant labour and student population (Neef, 2020). There were a series of policies to extend visas for people stranded in Australia during the lockdown. Australia also announced that it would allow unemployed individuals on temporary work visas to withdraw up to $5,996 (A$10,000) from their superannuation (retirement) savings annually for the next two years. When the scheme was first announced in response to COVID-19, only individuals eligible for unemployment benefits had been allowed to access the scheme, excluding individuals on temporary work visas, until some serious issues faced by migrant workers were exposed. What is more, some employers in the food industry took advantage of the already trapped students that had been exposed. The post-pandemic responses in this regard would very much depend on the future of the country’s attitude towards migration and the future of higher education. However, to what extent these temporary populations have contributed to improving the food security in Australia needs to be further studied.

4.6. Seoul

Key information

Seoul is the capital city and the largest city in South Korea (hereafter Korea). It is also the centre of the economy, politics, education, and culture of the country. Its 9.6 million residents (one fifth of the national population) live in 605 km2, with the population density of 15,928 per km2 in 2019. According to the Seoul Institute (2022), this density is higher than in major global cities such as London or Singapore. Seoul is organised into 25 boroughs with elected borough heads and councils. Seoul is governed by an elected mayor and city council members. The mayor attends the central government cabinet meeting even if she/he belongs to the opposition party. The annual budget is 41.9 trillion KRW (about 40 billion USD) in 2019, comparable to 9% of the central government budget. In 2019, Seoul had a GDP per head of 45.1 million KRW (about 41,000 USD) above the national average of 37.3 million KRW (about 34,000 USD). Its total volume of GDP was 423,742 billion KRW, which corresponds to 22.6% of the national GDP (Statistics Korea, 2022). Seoul is one of the most global cities in East Asia. Seoul’s main airport (Incheon International Airport) is one of the busiest airports in the world. In 2018, it was ranked fifth in the number of users and third in the weight of carried freight. Within a two-hour flight, Seoul is connected to the largest cities in China and Japan, including Beijing, Shanghai, Tokyo, and Osaka.

Only two thirds of the total area in Seoul (605 km2) is available for dwellings because one third of the area comprises mountains, rivers, and parks. In 2018, built density in Seoul was 4,784 dwellings per km2. About 58% of dwellings are apartment-type housing. Most apartments are as high as 20 floors, and those built recently are even higher: 40 to 50 floors. Apartments have an advantage in providing housing for a large population within a limited area. According to Seoul Solution (2022), the average dwelling space for one resident in Seoul was
30.1m² in 2014. This is similar to Tokyo (31.3 m²) and London (32.4 m²).

Welfare state regime
For the Korean welfare state, there are multiple ways to characterize its regime type, including developmental, productivist, or familial welfare regime (Choi, 2013; Holliday, 2000; Kwon, 2005; Wang, 2017). Despite different labels, all point out that its welfare state characteristics reflect the historical legacy of the development state – the model for industrialization commonly adopted in East Asian countries, including Korea, Japan, Singapore, and Taiwan. In this model, the strong state sets economic growth as the primary goal of government policies and strategically allocates economic resources to help infant industries grow and compete in the global market (Johnson, 1986). For that purpose, the state prioritizes economic growth over social welfare needs, leaving welfare and care responsibility placed on the family (Peng, 2004; Estevez-Abe et al., 2016) and those employers who can afford occupational welfare (Kim et al., 2011). In addition, traditional Confucian ethics upholds the minimalist welfare state by emphasizing obligations to support the family rather than social rights as citizens, while valuing self-reliance through thrift, diligence in education, and work (Wang, 2017). However, after the democratic regime change in 1987, Korea began to expand its statutory welfare substantially in terms of programme type, budget, and coverage, making the state emerge as the main welfare provider (Peng, 2004; Byun, 2022). It has been shifting from a minimalist welfare state towards a universal welfare state (Kwon, 2019). Despite significant welfare reforms, the familial welfare state partly remained. For instance, the social assistance entails a strict conditionality, not only on the recipient’s income and assets but also on his family members (National Basic Living Security Act 2000).

Welfare policies and food insecurity in Korea
The main channel to provide food security for low-income households is the income support through social assistance programmes. However, this benefit requires a strict means test, excluding many needy individuals from benefits. According to the National Basic Living Security Act, a vulnerable person is defined as one whose income is less than 30% of the national median income, and at the same time does not having a direct family member who can afford to support the person economically. The family responsibility condition reflects the familial welfare state. By the 2020 revision of the Act, this clause was to be relaxed significantly since October 2021. However, it still remains if the direct family member’s yearly household income is more than KRW 100 million or the household’s asset is more than KRW 0.9 billion. The income threshold includes the top 15.2% of households in 2020, while the asset threshold is around the top 10% in terms of net household assets in 2020 (Statistics Korea, 2021). Still, this relaxed means test for a direct family member excludes many young adults in education/training and the elderly, from the benefits. In particular, the asset test excludes low-income elder-ly who live in their own home in urban areas even if they have no income. The pension coverage for the senior elderly aged 71 or more remained at 23.4 % in 2016.

For those vulnerable persons, the government provides basic living income and income supplement for housing, medical service, education, child birth, or funeral service (National Basic Living Security Act 2000). The rules and benefit levels are set by the national government, while the implementation is done by the local government. Prior to the National Basic Living Security Act of 2000, the Protection of Minimum Living Standards Act of 1962 provided vulnerable people with minimum cash benefits to buy food, clothing, and fuel for heating, as well as with in-kind benefits for medical service, education, and social housing. Under the current National Basic Living Security Act of 2020, there is no special policy to provide vul-
nerable people with food. It is up to the recipient how to use the cash benefits, corresponding to 30% of the national median income.

Against the backdrop of the minimalist welfare state in Korea, voluntary and community actors have played a significant role as welfare providers. After the Korean War (1950–53), there was an influx of foreign relief agencies into Korea. In particular, Christian churches and charity organizations have actively engaged in poverty relief activities. During the rapid industrialization between the 1960s and 1980s, the state suppressed VCOs engaged in political activism (e.g., pro-democracy movement or labour movement), while supporting VCOs in welfare and social service provision (Kim et al., 2011). In this regard, the conventional view (Salamon and Anheier, 1998) is misleading. The state repression of civil society actors had been selective rather than full-fledged.

COVID responses

During the pandemic period, food supply remained stable in Korea because domestic producers provided the main food products (rice, seafood, vegetables, meat, fruits, and dairy) and the infection rates in rural areas remained low. No emergency policy was needed to secure food production and supply (OECD, 2020). However, food service providers and catering companies had severe economic damages because the government-imposed movement restrictions, such as school closures and two weeks’ mandatory quarantine for international travellers, as well as social distancing measures, including restrictions on gatherings and opening hours and the maximum number of users for restaurants.

To respond to the restriction on movement, the food service industry rapidly expanded SNS/smartphone app-based platform service and delivery chains. Taking advantage of well-established IT infrastructure, rapid technological adaptation among food suppliers and consumers ameliorated the problems of food supply and delivery. Multi-generational family structure helped the elderly with low digital literacy use the digitalized way of food supply to households. However, this market-reliant response revealed its limitations in relation to food security among the vulnerable groups, including young people and elderly people who had no family members to rely upon.

In particular, young people appeared as a new economically vulnerable group during the pandemic due to a freeze in new hiring during the COVID-19 both for regular full-time and temporary part-time jobs in small shops and restaurants and internships. The latter used to provide part-time employment to college and high school students. The youth group has not been considered as the target group in social security programmes in Korea because young people’s economic security is considered as the responsibility of themselves or their family.

It should be noted that besides school closures, Korea did not impose hard lockdowns during the pandemic, as used in Germany and Australia. Instead, Korea relied on a targeted containment approach for the infected people and those who contacted the infected (Moon, 2020). The so-called 3T (testing, tracing, and treatment) approach was established when Korea responded to the two earlier Corona-type virus outbreaks, SARS in 2003 and MERS in 2015. The earlier experience allowed the government to set up coordination mechanisms between the central and local governments, between government and hospitals, and between government, firms, and citizens. It also led to the establishment of a special government agency, Korea Disease Control and Prevention Agency (KDCPA), as the control tower for contagious disease control access prior to the COVID-19 outbreak. With the earlier experience, KDCPA
was granted access to the use of personal information for the purpose of stopping contagious diseases. Using the 3T approach, residents of Seoul could maintain their basic routines, while wearing masks in public space. In Korea, the number of COVID-19 confirmed cases was 131,671, while the number of deaths was 1,900 as of May 16, 2021 (CSSE, 2021). This is relatively moderate from an international perspective.

In response to the pandemic, the government provided temporary relief grants to all residents of KRW 0.4 million for single households (KRW 1 million for a 4-member family) in May 2020 and KRW 0.5 million to those who had income reduction due to COVID-19 and whose household income was lower than 75% of median household income, and had an asset value lower than KRW 350 million. Temporary emergency relief also included grants to small businesses and self-employed who experienced loss of income due to government restrictions on business for COVID-19-related reasons (maximum KRW 3 million) and to the unemployed (maximum KRW 2 million for a 4-member family) in October 2020, January 2021, and April 2021 (Ministry of Labor, 2021). However, the benefit was too low, temporary and required complex means testing.

Key points
Food security in Korea has remained stable for a broad population, but not necessarily for vulnerable groups (Joo et al., 2021; Cho and Jeon, 2021). VCOs have played an indispensable role in food relief during the pandemic by supporting those vulnerable individuals outside the reach of statutory welfare. Although VCOs expanded food relief programmes during the pandemic, they had established such programmes before COVID-19 for those vulnerable groups outside the reach of statutory welfare. VCOs swiftly identified the increased hunger risk and adapted their programmes to the emergent needs in the pandemic situation. Upon the increased need for support, VCOs were proactive or entrepreneurial rather than passively overburdened. Rather than seeking financial support from the government, VCOs relied on “community actions”, organizing donations and volunteers among citizens and local businesses. Six VOCs turned out to be most visibly engaged in food relief during the pandemic, including Friends of Hope, Myung-dong Babjib, Half-price Restaurant for the Youth, Anna’s House, Zero Won Store, and Seocho Elderly Welfare Center.

During COVID-19, food access to vulnerable groups was provided by various voluntary and community actors (VCOs), including NGOs, churches, and local governments via soup kitchens, food vouchers, free grocery stores, and half-price restaurants.

The formal social security system (social assistance programme) has an incomplete reach for vulnerable groups, including college students, homeless people, poor elderly, and children in vulnerable families, because of its strict eligibility criteria and means testing. Those VCOs swiftly identified the loopholes in the social security system and expanded its food relief programmes during COVID-19. These activities were strongly supported by donations and volunteers.

The formal welfare state is not complete. Particularly, social assistance programmes’ means testing often excludes vulnerable groups from support. In addition, it takes time for the formal welfare state to respond to newly emerged vulnerable groups. Although the social policy (or welfare states) literature generally views the role of VCOs in welfare provision as the indication of an underdeveloped welfare state, our study demonstrates that VCOs have an indispensable role in reaching out to the most vulnerable groups, filling the loopholes of the
formal welfare state.

Filling the potholes of the welfare State

In Seoul, VCOs clearly recognize the very specific limits in the coverage and benefit levels of statutory welfare programmes, as well as their behavioural impacts on the benefit recipients. Furthermore, they design relief programmes to deliberately overcome the limits of statutory programmes. For its food relief programme for children in low-income families, Friends of Hope set the eligibility threshold as 150% of the poverty line income (75% of the median income), whereas the statutory social assistance sets the threshold at 60% of the poverty line income (30% of the median income) (National Basic Living Security Act 2000). According to the programme’s manager: “if one member of the recipient family starts to earn income that exceeds 60% of the poverty line household income, social assistance benefits would stop. This disincentivizes employment efforts among the recipient family members. This is why they have their own standard” (Byun, 2021).

As the food bank programme exemplifies, many people in need of food do not qualify for social assistance. VCOs have filled this gap between statutory welfare and actual need for food. In addition, during the pandemic, VCOs identified newly emerged risk groups, and took immediate actions. As introduced earlier, Friends of Hope swiftly identified a sharp increase in the need for food among young adults in education and expanded its food voucher programme, Lunchbox for Youth. The VCO also started a new programme for children at risk of food poverty. The programme manager pointed out that the social assistance benefit (KRW 1 million per month for a four-member family) is “far from sufficient” to make a living in metropolitan areas like Seoul. In addition, neither unemployment benefits nor social assistance benefits cover those self-employed who had to close their business during the pandemic (Byun, 2021). The interviewees perceive their proactive role during the pandemic as a natural response. Such an organizational response has to do with the historical context of the minimalist welfare state, which has long left the welfare responsibility for children and elderly in vulnerable families outside the statutory welfare.

A channel of social solidarity

VCOs in Seoul appear to provide a channel of social solidarity in their food relief activities. Rather than relying on government support, VCOs have initiated their own programmes by organizing volunteers and donations for community action, maintaining financial independence from the state. In doing so, VCOs served as a venue to mobilize citizens’ empathy to other citizens who fell into hardship during the pandemic.

Upon the sudden surge in the need for food, VCOs have proactively expanded their organizational activities rather than passively responding or being overburdened. In the case of Seocho borough’s elderly welfare centers, the activity is beyond mere provision of food. They approached food security issues from a social perspective, encompassing not only meals for living, but also a socializing venue that provides a sense of belonging and social interactions. Thus, their food relief concerns a broader social work scheme. Before the pandemic, they ran three free restaurants for around 700 elderly people aged 60 and above who lived in the borough and were at risk of not having meals. At the Elderly Center, those low-income elderly can have meals as well as cultural and sport activities along with other non-poor elderly people. As the restaurants had to close due to the pandemic, the Center started to deliver lunch boxes to low-income elderly.
Concerning the social meaning of food
Upon the reopening of the restaurant in the fall of 2021, the director of the restaurants accurately addressed the social meaning of food service to low-income elderly. She stated: “This restaurant is a very important place for the elderly people to meet each other, not just having food. We are glad to reopen the restaurant now” (Ryu, 2021). A female user aged 74 makes it clear that she comes to the restaurant not only for eating but also for socializing, saying that: “I was excited and glad when I got a phone call from the staff that I can come to the restaurant again. I got my hair done and dressed up today for this outing” (Ryu, 2021). This community approach to food relief provides something beyond food. An elderly user in his 70s expressed that it is “warm” food rather than food itself that matters to him a lot, saying that: “I feel so good to have warm food after a long time” (Ryu, 2021). However, this social approach may have to do with the fact that Seocho is the richest borough in Seoul. If the hunger risk were more prevalent, as in Yeongdeungpo borough, the Center might have to focus on providing basic food relief to more people.

A source of welfare innovation
VCOs can be a source of welfare innovation. An exemplary case is how Friends of Hope reached out to the college students at risk of hunger. When they launched a fundraising campaign, the hunger risk remained largely unknown to the public. More problematic was a social stigma for the benefit recipients. The college students at the risk of hunger tend to perceive food vouchers as something shameful and are reluctant to apply for the programme. Previous recipients of the voucher tend not to spread the information to others. To overcome this obstacle, the organization put innovative and deliberate efforts to disseminate the programme information via social network services in a close collaboration with an NGO called Tenspoon (meaning that many a little makes a mickle). Tenspoon has an established network among the college students who participated in its food support activities. This sophisticated approach reflects the comparative advantage of VCOs vis-à-vis the state in welfare provision.
5. Discussion/policy recommendations

COVID-19 triggered pandemic responses in all countries, which 1) limited human mobility and 2) disrupted the logistics of the food supply chain. Our case study reveals the different types of vulnerabilities as COVID-19 hit and the pandemic responses kicked in. First, the usual welfare recipients (e.g., older people, people with disability, children in poor families) became even more vulnerable when their welfare services (which often include food provision) were disrupted. Second, the new vulnerable people, who are able to meet their needs in the market in ordinary times but cannot as a result of the pandemic responses (e.g., people who lost their jobs and businesses, and the marginalized communities who became more isolated from “mainstream” society). Depending on the level of lockdown, the number and share of the population experiencing new vulnerability can be different. COVID-19 has exposed the limited roles the established welfare system could play during disasters like a pandemic. Future crises could be worse than COVID-19 and our past three years’ experience has shown that the welfare systems of each city can do better in the face of emergency.

The six cases offer the following insight:

1. Even without a pandemic, urban food governance is a complex system involving coordination between different locations (in food production, transportation, sales and delivery), different businesses (processing companies, transportation companies, shops, restaurants, etc), NGOs (charities, social service providers, etc), civil society (volunteers, neighbours, friends and kinship networks) and government agencies.

2. A stricter lockdown during the response to the pandemic generates greater restrictions to human mobility and hence more serious food vulnerability as a larger proportion of the population became dependent on last-mile food delivery and food logistics, food charities, and social services become more restricted.

3. With the much more severe vulnerabilities in the population and the different levels of lockdown, any state will inevitably find itself in a situation of demand for unusual food support, lower market capacity for food supply, and lower food affordability and accessibility.

4. The government that is likely to assume a leadership role may not naturally appreciate the non-government sectors’ potential in addressing the food challenges, to begin with. However, sooner or later, it will realize that it needs to work with the communities, or even must rely on the communities to come up with localized and new solutions to food difficulties. Before the state recognizes the potential of the non-government sectors, it may face chaos or even suffocate the innovative solutions.

5. The turning point arrives when the state and the other stakeholders gain a better understanding of its roles in each context. It would be ludicrous to claim that one city’s response would definitely be better than another city’s, or that one approach is definitely better than another, because the local contexts in terms of the severity of the outbreak, the urban settings, the population density and diversity, the resources and the health sector capacity, and the expectations of the government, are very different. However, the arrival of the turning point from a state of chaos to diminishing risks of human tragedies could be identified by observing the nature of the state and society interactions.

Obviously, social policy scholars would like to see that both the subject and practice of social policy should matter very much in managing a pandemic and other challenges that
society faces. The reality is that the welfare states around the world play a marginal role in the early stage of the pandemic response regardless of what regime type of welfare state it is. This is because social policy and disaster relief are rarely integrated. Social welfare entitlement relies on social consensus or voter support to change in a liberal democracy. In productivist countries like China, or welfare regimes that try to advocate work ethics such as Singapore, China and Australia, social welfare would not cover the vast majority of those in need, because of job losses. Having said so, it is important to highlight that the pandemic caused not only food affordability, but also food accessibility. As a result, the nature of vulnerability is also different. Therefore, it is hard to expect that the welfare regime really matters.

Social policy seems to have mattered more at the later stage of pandemic responses when lockdowns or social distancing rules are less strict, or in countries where lockdown did not happen, such as in Sweden. The food issues in these circumstances was mostly about affordability. Then, expanded welfare expenditures and social services address the needs of those in need. Even so, most governments would rather treat the pandemic as an emergency situation rather than a permanent state of affairs and would like to use emergency relief policies to address the “one off” or temporary needs rather than the institutionalized social welfare system.

For the future, the way that social welfare systems may play a bigger role is to make use of their existing database to help identify the particularly vulnerable population and direct more emergency resources to target the most in need. Another perspective is to improve the resilience of the social service providers by enhancing their ability to adapt to restricted service provision through risk mapping and training.
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