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Food sharing governance in European cities: insights from a scoping review

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ABSTRACT

Food sharing initiatives (FSI) are rapidly growing in urban areas and present new opportunities to shape more sustainable urban food systems through collaborative efforts. These initiatives operate within a governance landscape that supports, influences, guides, and regulates their activities. This scoping review aims to explore the current knowledge of food sharing governance in Europe and reveal some of the governance elements that play a role in promoting or hindering the expansion of food sharing initiatives. Our research first offers a quantitative analysis of the literature, pinpointing areas for further investigation. Additionally, we provide a qualitative understanding of the benefits food sharing initiatives entail and the barriers and enablers they encounter. This comprehensive insight has led to developing a new framework to classify internal and external food sharing governance elements consisting of eight categories: structural factors, regulation, resources, discourses, relations between social actors (including power relations), participation, knowledge, and internal organisation. While avoiding idealisations and assessing these initiatives within their specific contexts is crucial, it is worth granting them visibility and support as they possess the potential to transform the food system.

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Urban food governance; food redistribution; community gardens; community kitchens; community composting

Key recommendations for policymakers

- Acknowledge FSI's sustainability potential and integrate regulatory policies and voluntary agreements to allow the development of wider sustainable food sharing strategies.
- Create synergies among different levels of food sharing governance and encourage collaborations and agreements among a diverse range of stakeholders, including national and local governments, businesses, charities, NGOs and communities, farmers, food entrepreneurs, and activists.
- Grant financial independence and allocate budgets for collaborative governance related to food sharing.

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- Consider food sharing initiatives as a means to empower vulnerable citizen groups, enhancing their participation through job creation and cultural inclusion measures.
- Consider food sharing as one of the strategic responses to health, socio-economic or climate crises, and allocate resilience funds specifically to bolster these initiatives' capacity to respond effectively during disruptive events.

Introduction

The agri-food system is at the heart of many current social and environmental challenges. A third of the global GHG emissions are linked to the global agri-food system (IPCC 2019), which is considered a main driver in exceeding six of the nine planetary boundaries (Rockström et al. 2009; Steffen et al. 2015). In this context, scholars and practitioners have highlighted the crucial role of cities in shaping the food system and addressing sustainability challenges (Hawkes 2023; HLPE 2024; Nijman and Wei 2020). In fact, hundreds of cities around the world are already developing urban food policies, projects, and activities to create more sustainable, fair, and resilient food systems (MUFPP 2024).

While only representing a small part of the global food system, food sharing is increasingly becoming more visible in cities and expanding through dedicated initiatives, offering new opportunities to tackle inequalities and shape more sustainable and resilient urban and peri-urban food systems (Davies 2019). The sharing of food is a long-lasting structural element in many animal species (e.g. Ripperger and Carter 2021; Samuni and Surbeck 2023) and has facilitated nutrition and social relations in human societies (e.g. Gurven, Hill, and Kaplan 2002). In recent years, however, *food sharing initiatives* (FSI hereafter) have been blooming in cities worldwide. These (largely community-based) projects open new spaces in sharing economies while advancing solutions to current social and global environmental challenges (Carolan 2018; Davies and Evans 2019). FSI involve practices conducted by formal or informal organisations collaborating in growing, cooking, eating, or distributing food and sharing food-related skills, knowledge, spaces, and/or tools (Davies et al. 2017). FSI differs from other collective food sharing activities, such as family-based food sharing, in their purpose, target audience, and organising structures. While FSI primarily addresses community needs and mobilises a broader range of participants through organised efforts among diverse members across various organisational models, family-based food sharing focuses primarily on family units and is shaped by family structure and dynamics.

There is a wide range of things that can be shared, from the material items of food (such as unprocessed crops, cooked food, or seeds) to products (such as processed food or tools for growing and cooking) and services (such as systems for the provision of redistributed food). Additionally, capabilities (for example, growing or cooking skills) and spaces (including fields, allotments, gardens, kitchens or logistics infrastructure) can also be shared. In addition to different types of FSI and things that can be shared, FSI can organise themselves around more hierarchical or more self-organised models. They can also mobilise various modes of sharing, such as gifting, bartering, collecting, and selling. There is a rich diversity of FSI, which include a variety of organisations and groups. These range from non-profit organisations, such as food redistribution organisations, to clubs, associations, and networks like community gardening groups. Additionally,

there are cooperatives, such as food cooperatives; for-profit businesses, including those that create mobile phone apps aimed at reducing food waste; informal initiatives like spontaneous community potlucks; and social enterprises, such as cafes that use surplus food to prepare meals (Davies 2019). Thus, some of the FSI are transactional, typically (but not necessarily) commodified, profit-oriented, and focused on improving efficiencies in existing systems; while others develop a more transformational ethos and seek to change power dynamics and social relations (Davies et al. 2017).

Within the food sharing field, a growing body of literature is studying these initiatives under the assumption that they hold transformative potential (e.g. Becker and von der Wall 2018; Ilieva et al. 2022). These contributions are mostly based on case studies of specific initiatives (e.g. Davies et al. 2017; Hasanov, Zuidema, and Horlings 2019; Hennchen and Pregernig 2020). However, although some studies compare several case studies and try to identify and examine commonalities (e.g. Davies, Cretella, and Franck 2019; Morrow 2019a), there is limited analysis of the cumulative benefits FSI yield and the role of governance in shaping these initiatives and associated benefits. This limited engagement with the governance dimension of food sharing leads to a lack of guidance for actors involved in its governance -from policymakers to specific initiatives-, on how to effectively strengthen food sharing initiatives and reshape the context where they operate to maximise their sustainability benefits. Providing some guidance is especially critical given the growing importance of sustainable food policies in local, regional, and national governments and international endeavours to promote sustainability in food systems (e.g. MUFPP 2024).

In this context, the paper's aim is to understand what the role of governance is in shaping food sharing initiatives within urban spaces and examine its influence on the expansion, inclusivity, and resilience of food sharing systems. While the definition of governance - and its urban and food dimensions - is still highly debated (see Moragues-Faus et al. 2023), in this paper, we adapt Margulis and Duncan's (2016) proposal and define food sharing governance as the constellation of processes, practices, discourses, institutions, relations, and structures that influence, guide and control food sharing activities. Food sharing governance encompasses a wide range of social actors, from governmental organisations to local grassroots communities, farmers, media and businesses. By examining previous research on urban food sharing governance through a scoping review, we aim to offer a comprehensive view of the aggregated reported social, environmental, and economic benefits they entail and to determine key governance elements at play that support or hinder the benefits of FSI in different contexts. These findings also serve as the basis for a critical reflection on some of the limitations regarding the transformative potential of these initiatives. The research is circumscribed to European cities since it provides a common regulatory framework and context, is home to key food sharing research projects[1], restricts the number of studies, and provides a fertile ground of experiences given the active participation of many local governments of that continent in developing sustainable food policies. In fact, many local European governments organise through international networks committed to advancing sustainable food systems, including FSI (see, for example, Eurocities 2023). Also, since this is a relatively new and expanding body of literature, this scoping review helps identify current knowledge gaps and research directions and advances some policy recommendations.

The remainder of the paper is organised as follows. First, we present the methodology used for this scoping review. Second, we outline the results divided into five subsections where we reveal: (1) the quantitative features of the selected studies; (2) the aggregated benefits of FSI; (3) the main approaches on food sharing governance and the reported enablers and barriers of FSI; (4) a proposal of a new framework for classifying FSI barriers and enablers, and (5) main knowledge gaps for future research. In light of these results, in the third section, we discuss the transformative potential of FSI. We conclude by highlighting the main contributions of this research.

Methods

We employed a scoping review methodology to conduct a comprehensive mapping of the food sharing governance field in European cities. Scoping reviews are useful for clarifying concepts, establishing the extent of available research, and guiding future research directions (Munn et al. 2018). In contrast to systematic reviews, which typically focus on gathering international evidence to answer specific, well-defined questions and often involve evaluating the quality of such evidence, scoping studies take a broader approach (Moher, Stewart, and Shekelle 2015; Peters et al. 2015). They are less focused on assessing the quality of evidence and instead aim to explore more expansive topics, identifying knowledge gaps, generating new hypotheses, and assessing the overall coverage of a body of literature (Tricco et al. 2016). In this respect, the scoping review presented here allowed us to analyse the published scholarly work on food sharing governance.

Before conducting the review, the research team developed a methodological protocol. We address the details of the relevant method from the scoping review protocol below. The specific questions guiding this scoping review are related to how food governance shapes and is shaped by food sharing initiatives:

- What are the social, environmental, and economic benefits of food sharing initiatives in European cities?
- How is the governance of European urban food sharing initiatives approached in academic literature?
- What are the main enablers and barriers to European urban food sharing initiatives?
- What are the main knowledge gaps in urban food sharing governance?

Eligibility criteria

Studies in this review were included if: (i) food sharing was related to contemporary humans (as opposed, for example, to food sharing performed by the rest of the animal world or by humans in other times of history); (ii) food sharing was referred to community-engaging initiatives (as opposed, for instance, to family food sharing initiatives); (iii) the evidence they provided or they referred to related to European cities, (iv) they were published in English, and (v) the full text was publicly available. The review included papers published from 2015 up until April 2023, recognising the significant momentum that urban food policies gained following the signature of the Milan Urban Food Policy Pact (MUFPP). This international treaty aims to advance the transformation of the food

system in cities and is considered a landmark for urban food policy development (Moragues-Faus et al. 2023).

Search strategy

An original search for research studies was undertaken in March and April 2023 using Scopus and Google Scholar engines. At first, the search term "food sharing" was combined with "governance" for all database fields. Additionally, the search term combinations "surplus food redistribution" and "governance"; "urban gardens" and "governance"; "community gardens" and "governance"; "community composting" and "governance"; "community cooking" and "governance"; "community eating" and "governance"; "food cooperatives" and "governance" were used in the title, abstract or keywords.

Figure 1 presents the PRISMA flow diagram showing the process of article screening, inclusion, and exclusion. A total of 470 studies were identified and imported into Zotero for review. 103 duplicates were removed, and the titles and abstracts of the remaining 367 studies were screened to determine eligibility. 254 studies were excluded because the focus on food sharing was marginal, there were family-based initiatives, the focus of the study was water sharing rather than food sharing, their focus was not urban, or the abstract was not in English. Both colleagues' suggestions and the artificial intelligence engine ResearchRabbit.ai were also used to identify 13 additional records. 125 studies underwent full-text screening for eligibility. 68 of them were excluded at this stage because they did not analyse food sharing governance ($n = 15$), evidence was not based on European cities ($n = 13$), or they were not relevant to our study ($n = 40$). A total of 58 studies were finally identified as eligible for inclusion in the scoping review. These studies were analysed to classify the types of food sharing initiatives studied and describe the reported social, economic, and environmental impacts, the enablers and barriers of food sharing governance, as well as the knowledge gaps.

The search terms we used allowed us to identify a diverse range of papers related to food sharing. However, food sharing is an expanding field with new concepts, practices, and initiatives constantly emerging, and there may be limitations in the terms we selected. This includes the variation of terminology used in different European contexts and cultures. Additionally, we had to establish specific criteria for selecting the papers to be reviewed, and the exclusions made could have affected the final set of papers we considered. It is particularly important to note that we restricted our review to documents written in English, which may lead us to overlook valuable practices and knowledge produced in other languages.

Data extraction and analysis

Data was codified using the qualitative research software *Atlas-ti*. An initial -but not exhaustive- list of codes was provided to facilitate the codification of internal and external barriers and enablers for food sharing initiatives. This initial list was developed through two participative workshops with 48 participants representing academia, policymakers, and food sharing initiatives across Europe. This list was iterated as necessary to include additional codes during codification. Also, a list of reported environmental, social, and

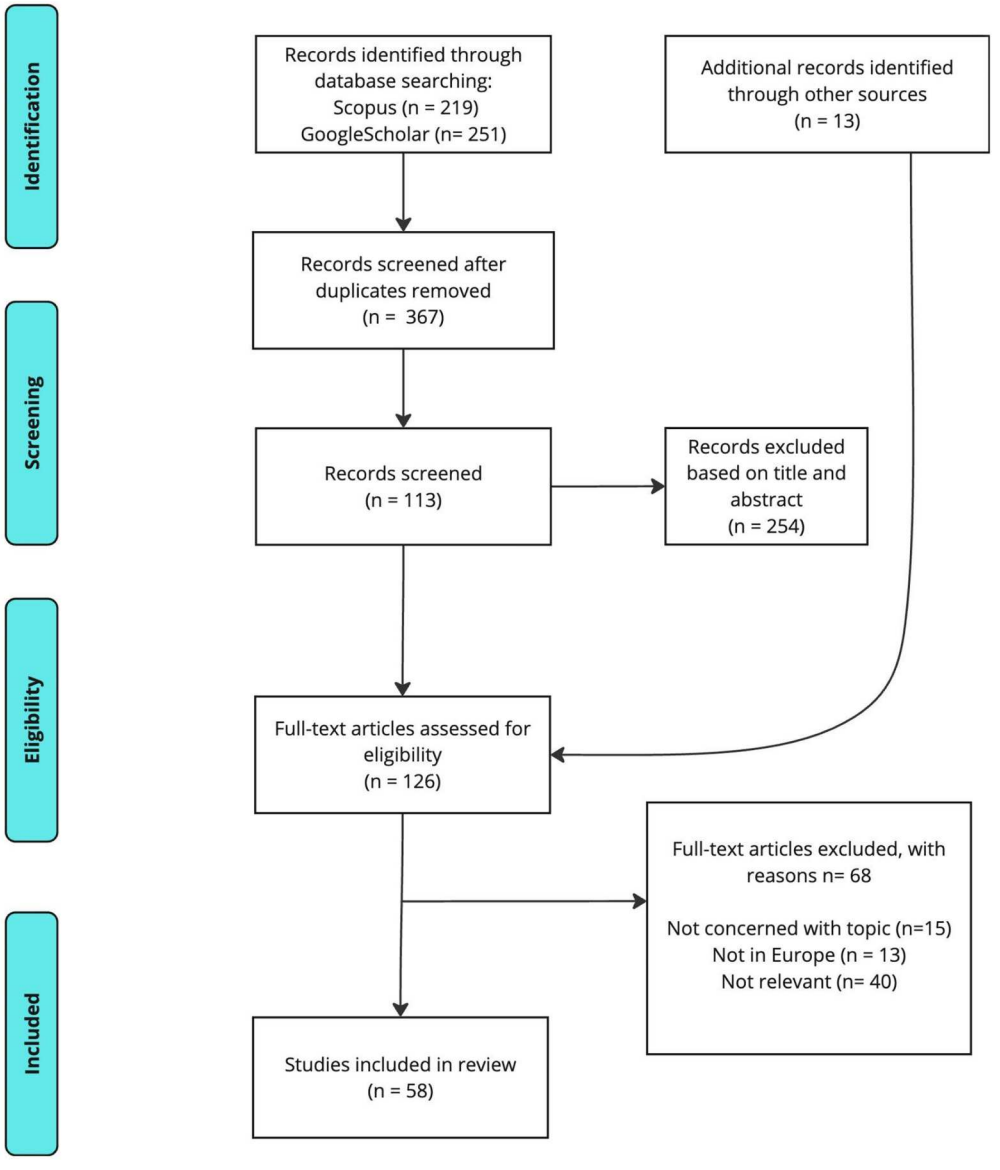

Figure 1. Overview of the articles selection process.

economic impacts was compiled by identifying and grouping various aspects of these impacts found in the retrieved papers. When individual papers discussed different types of impacts, they were categorised as environmental, social, or economic accordingly.

Results

In this section, we present an overview of the coverage of the research on European urban food sharing governance research. First, we display several quantitative features of the

selected studies, namely bibliographic information, FSI geographic locations, and the type of FSI reported by the literature. Second, we examine three crucial qualitative features: (1) an overview of the collective social, environmental, and economic reported benefits derived from food sharing practices tracked by the literature; (2) insights into the approaches to study food sharing governance in European cities; and (3) identification of the primary enablers and barriers that shape the landscape of food sharing initiatives, aiming to provide valuable insights for both scholars and practitioners engaged in urban food systems development. Finally, based on these results we propose an analytical framework to further categorise enablers and barriers to FSI.

Quantitative analysis

FSI geographic locations and bibliographic information

Most articles studying the governance of food sharing initiatives (see Figure 2) are based on case studies ($n = 25$) or comparisons between cases or places (n = 11). We also found 12 overarching studies, six assessments, and four reviews. While case study approaches cannot be used to draw generalisations about social phenomena (Dogan and Pelassy 1990), this approach produces *context-dependent knowledge* (Flyvbjerg 2004), which is crucial to understand the governance of FSI. Also, understanding a wide range of cases and the possibility of drawing comparisons between cases is a starting point for identifying commonalities and regularities between cases.

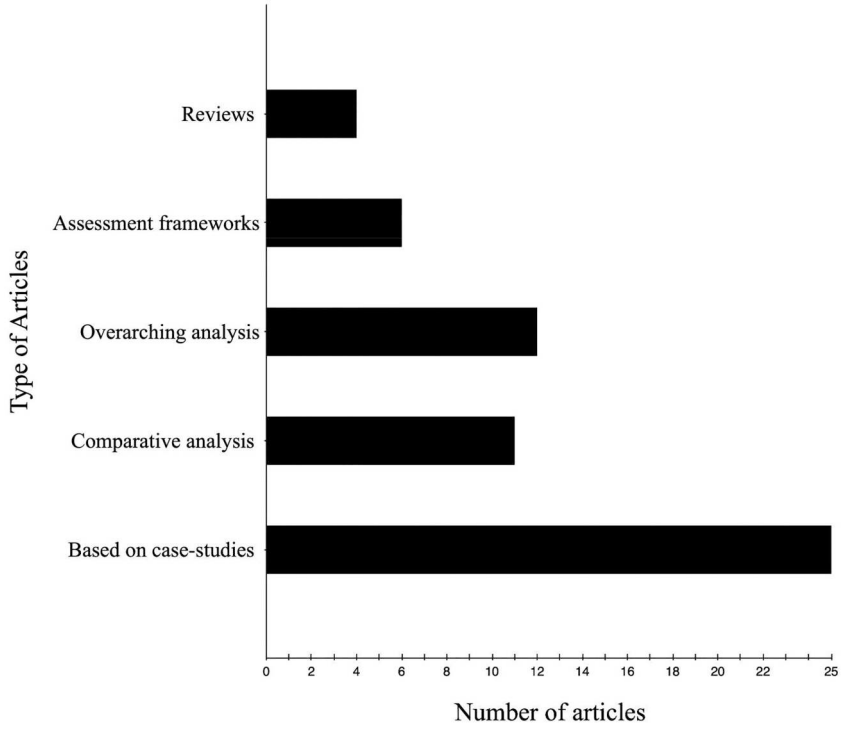

Figure 2. Number of studies per type of article. Source: The Authors.

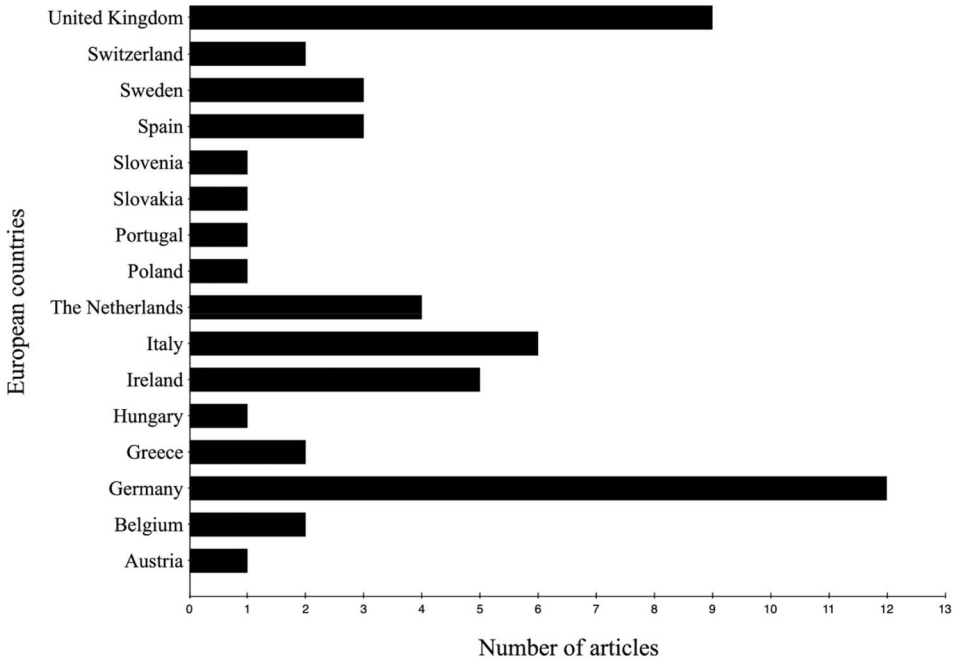

Figure 3. Geographic distribution of FSI case studies across included articles. Source: The Authors.

The geographic analysis of the FSI examined in the selected articles revealed that 43 European cities were mentioned in the literature. Berlin was the city most represented in the retrieved articles, as five articles explicitly mentioned it as the context for their case studies. A breakdown by country (see Figure 3) indicates that Germany has the most reported case studies, with 12 studies including references to German case studies, followed by the UK (9), Italy (6), Ireland (5), and the Netherlands (4). Although some studies examine Eastern European case studies, this part of Europe is less represented in the retrieved literature. This underrepresentation may stem from limitations in the search terms we used (Jehlička et al. 2020) or from the relevance of family food-sharing practices in this region (Jehlička and Daněk 2017), which we did not include in our search.

Types of food sharing activities

FSI involve a wide variety of activities, such as seed sharing, community gardens, urban foraging, gleaning activities, food cooperatives, community kitchens, communal eating experiences, surplus food redistribution, and community composting, among others (Davies and Evans 2019). In this scoping review, many articles referred to one or more of these activities to articulate their contribution. Community gardens and food redistribution are the most studied areas, with 37 and 32 studies referring to these activities, respectively. These are followed by community cooking and eating together (14), food cooperatives (7), and seed saving (6). The least represented activities in the selected literature are gleaning (5), community composting (5), and urban

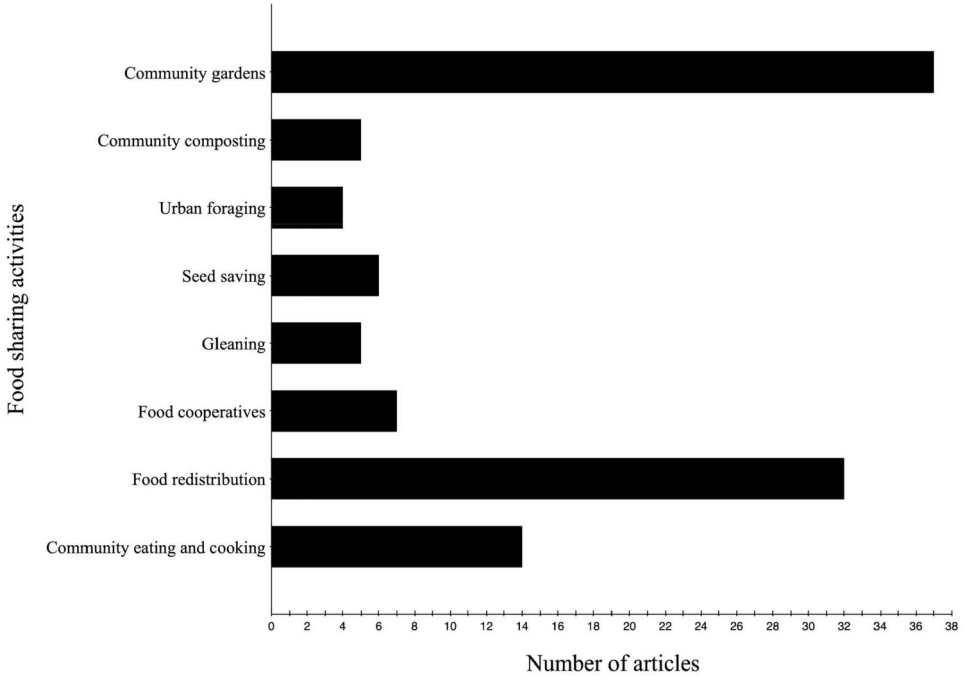

Figure 4. The number of articles mentioning different FSI activities. Source: The Authors.

foraging (4). See Figure 4 for an overview of the number of articles mentioning different types of FSI.

Qualitative analysis

Social, environmental, and economic benefits of food sharing

According to the literature analysed, FSI provide a wide range of social, environmental, and economic benefits to users and their families, local communities and neighbourhoods, vulnerable groups, workers, local businesses, schools, public institutions, cities, societies, and the environment (see Table 1 for an overview of all the reported benefits). However, this impact can vary depending on specific contexts, locations, times, and the type of food sharing activities.

Social benefits dominate the overall benefits reported by the selected literature. We identified 36 studies that refer to the many social benefits of food sharing initiatives (see Table 1 to see all the reported social benefits). For example, a total of 24 studies underlined benefits encompassing the promotion of social cohesion (e.g. Becker and von der Wall 2018; Bonow and Normark 2018; Farrier, Dooris, and Morley 2019), and 17 studies referred to the catalyst role FSI play in civic participation and active engagement in community activities, nurturing a sense of shared responsibility and community pride (e.g. Bródy and de Wilde 2020; Keech and Redepenning 2020; Véron 2023). 15 studies also reported that these initiatives play a crucial role in raising awareness of pressing social and environmental issues (e.g. Farrier, Dooris, and Morley 2019; Ilieva et al. 2022; Jacob and

Table 1. Reported social, environmental, and economic benefits of urban food sharing initiatives.

Reported Benefits	Sources
Social	
Foster social cohesion	Becker and von der Wall (2018), Bródy and de Wilde (2020), Bonow and Normark (2018), Farrier, Dooris, and Morley (2019), Hasanov, Zuidema, and Horlings (2019), Hennchen and Pregernig (2020), Ilieva et al. (2022), van der Jagt et al. (2017), Jahrl, Moschitz, and Cavin (2021), Kotsila et al. (2020), Kotsila et al. (2021), Lampinen et al. (2018), Lombardi and Costantino (2020), Mackenzie and Davies (2022), Marovelli (2019), Michelini et al. (2020), Morrow (2019a, 2019b), Nikolaidou et al. (2016), Nikravech et al. (2020), Prové, Dessein, and de Krom (2016), Škamlová et al. (2020), Tecco et al. (2017), Véron (2023).
Raise awareness of social and environmental issues	Certomà and Notteboom (2017), Davies, Cretella, and Franck (2019), Farrier, Dooris, and Morley (2019), Follmann and Viehoff (2015), Ilieva et al. (2022), Jacob and Rocha (2021), van der Jagt et al. (2017), Jahrl, Moschitz, and Cavin (2021), Lombardi and Costantino (2020), Makov et al. (2023), Marovelli (2019), Morrow (2019a), Nikravech et al. (2020), Petrescu et al. (2021), Tecco et al. (2017).
Promote cultural diversity	Hennchen and Pregernig (2020), Ilieva et al. (2022), Jacob and Rocha (2021), Kotsila et al. (2021), Mackenzie and Davies (2022), Škamlová et al. (2020), Véron (2023).
Improve mental and physical health	Becker and von der Wall (2018), Bonow and Normark (2018), Ilieva et al. (2022), Jacob and Rocha (2021), Jahrl, Moschitz, and Cavin (2021), Kotsila et al. (2020), Kotsila et al. (2021), Prové, Dessein, and de Krom (2016), Tecco et al. (2017),
Foster social capital	Becker and von der Wall (2018), Ilieva et al. (2022), Jacob and Rocha (2021).
Strengthen nature connections	Becker and von der Wall (2018), Hennchen and Pregernig (2020), van der Jagt et al. (2017), Jahrl, Moschitz, and Cavin (2021).
Address food insecurity	Bródy and de Wilde (2020), Certomà and Notteboom (2017), Cloke, May and Williams (2017), Farrier, Dooris, and Morley (2019), Hennchen and Pregernig (2020), van der Jagt et al. (2017), Jahrl, Moschitz, and Cavin (2021), Mackenzie and Davies (2022), Véron (2023), Vittuari et al. (2017).
Increase joy, happiness and well-being	Farrier, Dooris, and Morley (2019), Hennchen and Pregernig (2020), Ilieva et al. (2022), van der Jagt et al. (2017), Kotsila et al. (2020), Kotsila et al. (2021), Mackenzie and Davies (2022), Petrescu et al. (2021), Škamlová et al. (2020).
Foster civic participation	Bródy and de Wilde (2020), Davies and Evans (2019), Hasanov, Zuidema, and Horlings (2019), Hennchen and Pregernig (2020), Ilieva et al. (2022), Keech and Redepenning (2020), Kotsila et al. (2020), Mackenzie and Davies (2022), Makov et al. (2023), Marovelli (2019), Nikolaidou et al. (2016), Petrescu et al. (2021), Plummer and Van Poeck (2021), Prové, Dessein, and de Krom (2016), Škamlová et al. (2020), Tecco et al. (2017), Véron (2023).
Promote non-monetary values	Kotsila et al. (2020), Mackenzie and Davies (2022), Morrow (2020), Petrescu et al. (2021), Tornaghi (2017).
Promote innovation and spaces for social experimentation	Hennchen and Pregernig (2020), Lampinen et al. (2018), Mackenzie and Davies (2022), Morrow (2019a), Tornaghi (2017).
Foster psychological safety	Cloke, May and Williams (2017, 2020), Ilieva et al. (2022), Lampinen et al. (2018).
Reinforce a sense of place and purpose	Farrier, Dooris, and Morley (2019), van der Jagt et al. (2017), Lampinen et al. (2018), Škamlová et al. (2020), Tecco et al. (2017).
Fight inequalities and power imbalances	Farrier, Dooris, and Morley (2019), Galli, Hebinck, and Carroll (2018), Hennchen and Pregernig (2020), Škamlová et al. (2020), Tornaghi (2017), Véron (2023).
Enhance social resilience	Farrier, Dooris, and Morley (2019), Ilieva et al. (2022), van der Jagt et al. (2017), Lampinen et al. (2018), Mackenzie and Davies (2022), Makov et al. (2023).
Environmental	
Tackle the climate emergency	Artmann and Sartison (2018), Becker and von der Wall (2018), Kotsila et al. (2021), Jacob and Rocha (2021), Petrescu et al. (2021), Prové, Dessein, and de Krom (2016).
Reduce food waste	Artmann and Sartison (2018), Michelini et al. (2020), Morrow (2019b), Nikravech et al. (2020), Lombardi and Costantino (2020).

(*Continued*)

Table 1. Continued.

Reported Benefits	Sources
Promote green spaces in cities	Bonow and Normark (2018), Certomà and Notteboom (2017), Farrier, Dooris, and Morley (2019), Follmann and Viehoff (2015), Jacob and Rocha (2021), Nikolaidou et al. (2016), Prové, Dessein, and de Krom (2016).
Improve soil health	Artmann and Sartison (2018), van der Jagt et al. (2017), Tecco et al. (2017).
Promote organic farming	Petrescu et al. (2021), Tecco et al. (2017).
Enhance environmental resilience	van der Jagt et al. (2017), Prové, Dessein, and de Krom (2016).
Improve resource efficiency	Jahrl, Moschitz, and Cavin (2021).
Foster ecosystem services	Artmann and Sartison (2018), Becker and von der Wall (2018), van der Jagt et al. (2017), Nikolaidou et al. (2016).
Economic	
Provide employment opportunities	Lampinen et al. (2018), Mackenzie and Davies (2022), Marovelli (2019), Petrescu et al. (2021).
Enable and facilitate skilling for volunteers and workers	Cloke, May, and Williams (2020), Hennchen and Pregernig (2020), Ilieva et al. (2022), van der Jagt et al. (2017), Lampinen et al. (2018), Mackenzie and Davies (2022), Marovelli (2019), Nikravech et al. (2020), Petrescu et al. (2021), Tecco et al. (2017).
Offer affordable food prices	Farrier, Dooris, and Morley (2019), Marovelli (2019), Michelini et al. (2020).
Create economic value	Lombardi and Costantino (2020), Morrow (2020), Nikolaidou et al. (2016).
Create additional income, especially for vulnerable groups	Artmann and Sartison (2018), Jacob and Rocha (2021), van der Jagt et al. (2017), Mackenzie and Davies (2022).
Promote social enterprises and micro-entrepreneurship	Farrier, Dooris, and Morley (2019), Michelini et al. (2020).
Generate income for local business and green tourism	Farrier, Dooris, and Morley (2019).
Reduce public expenditure on managing green urban areas	Tecco et al. (2017).

Source: The authors.

Rocha 2021). Ten studies referred to how they act as pivotal stakeholders in addressing food insecurity by providing food or meals to vulnerable people (e.g. Hennchen and Pregernig 2020; Jahrl, Moschitz, and Cavin 2021; van der Jagt et al. 2017), and nine studies also reported that these initiatives significantly improve mental and physical health (e.g. Kotsila et al. 2021; Prové, Dessein, and de Krom 2016; Tecco et al. 2017). Nine studies also add that FSI provide further social benefits by enhancing joy, happiness, and overall well-being within communities (e.g. Ilieva et al. 2022; Kotsila et al. 2020; van der Jagt et al. 2017).

Regarding environmental benefits, 17 studies have reported these initiatives playing a role in tackling pressing ecological challenges (see Table 1). This number aligns with claims from some authors who point out the difficulty of assessing the environmental impacts of FSI (Mackenzie and Davies 2019). A total of seven studies have underlined that these initiatives actively contribute to creating and maintaining green spaces within urban environments. For example, community gardens provide a local source of fresh produce while they enhance urban biodiversity and promote the overall well-being of urban ecosystems (e.g. Bonow and Normark 2018; Nikolaidou et al. 2016; Tecco et al. 2017). Also, six studies have highlighted that FSI help address the climate emergency by contributing to reducing carbon footprints associated with food production, distribution, and disposal (e.g. Artmann and Sartison 2018; Kotsila et al. 2021; Prové, Dessein, and de Krom 2016). One notable aspect of their reported climate benefits is linked to their significant role in reducing food waste. Five studies highlighted FSI's role in reducing food waste by effectively redistributing surplus food to vulnerable populations (e.g. Artmann and Sartison 2018; Lombardi and Costantino 2020; Michelini

et al. 2020). Additionally, five studies also referred to the FSI provision of valuable ecosystem services, whether through creating green spaces that act as carbon sinks or promoting biodiversity through organic farming practices (e.g. Nikolaidou et al. 2016; Tecco et al. 2017; van der Jagt et al. 2017).

A total of 17 studies have reported on the economic benefits of FSI. Ten of these studies have highlighted these initiatives play a pivotal role in enhancing the skills and capacities of volunteers and workers, contributing to the professional growth of those engaged (e.g. Cloke, May, and Williams 2020; Ilieva et al. 2022; van der Jagt et al. 2017). Also, seven studies have reported that FSI often create economic value and employment opportunities for individuals within the community directly tied to food preparation, distribution, and management (e.g. Lampinen et al. 2018; Mackenzie and Davies 2022; Marovelli 2019). An additional remarkable facet of some of some of these initiatives lies in their potential to uplift vulnerable groups through economic empowerment. Four studies highlight FSI's role in creating additional income for vulnerable people through employment or entrepreneurial activities within the initiative. This inclusive approach not only provides financial support but also fosters a sense of agency and resilience within vulnerable communities (e.g. Jacob and Rocha 2021; Mackenzie and Davies 2022; van der Jagt et al. 2017).

Food sharing governance: understanding enablers and barriers of FSI

Governance is an elusive term in food and urban literatures (Moragues-Faus et al. 2023) and, as evidenced in this scoping review, also in food sharing studies. Although the keyword "governance" was a criterion for selecting the scoping literature, not all of the papers examine the same governance aspects or explicitly define them. For example, some papers emphasise the significance of reflexive governance for achieving more democratic forms of organisation (e.g. Hasanov, Zuidema, and Horlings 2019; Spring and Biddulph 2020), while others underscore the importance of collaborative governance (e.g. Molenveld et al. 2021; Nikolaidou et al. 2016; van der Jagt et al. 2017) and some stress the crucial role of context in understanding governance (e.g. Prové, Dessein, and de Krom 2016). Governance structures can vary based on the developmental stage of the initiative, such as planning, design, construction/implementation, and management stages (Fox-Kämper et al. 2018). Moreover, governance can serve as either an enabler or a barrier in delivering positive food system outcomes, including environmental, social or economic benefits (Moragues-Faus, Sonnino, and Marsden 2017).

In order to understand the enablers and barriers of FSI, we distinguish two governance dimensions that interact reciprocally in civil society organisations and initiatives, such as FSIs: internal and external governance (Steen-Johnsen, Eynaud, and Wijkström 2011; Stone and Ostrower 2007). Building on previous research on the governance of Alternative Food Networks (see Manganelli, Van den Broeck, and Moulaert 2020; Tregear 2011), we establish the focus of internal governance on the internal dynamics, organisational forms and structure of FSI. It refers to the formal and informal processes and mechanisms put in place by FSI to ensure effective internal functioning, decision-making, and accountability. These include not only the diverse roles and responsibilities and the establishment of decision-making structure and processes, but also the internal norms, practices and systems that guide the organisation's operations and internal issues. External governance therefore entails the processes and requirements shaping or influencing FSI, which are

advanced by other actants. These include not only the legal systems and official standards but also structural elements and the relations and conventions that FSI must navigate while performing their activities. These arrangements may also be shaped by the interactions with governments and other institutional bodies, the private sector, media, scientists, social movements or other FSI.

A total of 30 studies referred to some aspect of the internal governance dynamics, either enablers or barriers. For example, several studies identify the degree of institutional integration of the initiatives as a relevant dimension to understanding the impact of different structures of governance (i.e. from more bottom-up approaches to more top-down), and they emphasise inconclusive evidence when considering some structures universally more effective than others (e.g. Fox-Kämper et al. 2018; Škamlová et al. 2020; van der Jagt et al. 2017). On the other hand, a total of 37 studies referred to external governance arrangements. For instance, several authors highlight the importance of collaborating with other stakeholders (e.g. Molenveld et al. 2021; Nikolaidou et al. 2016), and others affirm that municipal support is often key to initiative success (e.g. van der Jagt et al. 2017).

The distinction between internal and external governance elements can be most useful when applied to the analysis of barriers and enablers to enhance their understanding. In fact, 21 studies highlight both internal and external primary enablers of food sharing initiatives, as detailed in Table 2. The most frequently cited external enablers are the capacity of these initiatives to establish partnerships and engage actively within a network of collaborators (e.g. Burnett 2023; Jacob and Rocha 2021; van der Jagt et al. 2017), counting with support and recognition from city administrations (Burnett 2023; Hennchen and Pregernig 2020), and community support (Fox-Kämper et al., 2018; Nikravech et al. 2020). Additionally, the involvement of volunteers and a high level of member engagement emerge as pivotal internal factors for the success of FSI (e.g. Fox-Kämper et al. 2018; Hennchen and Pregernig 2020; Lampinen et al. 2018). Furthermore, the availability of stable and easily accessible resources, such as funds (Burnett 2023; Nikravech et al. 2020), and essential infrastructure, including land, storage facilities, or cooking amenities (Fox-Kämper et al. 2018; Hennchen and Pregernig 2020; Spring and Biddulph 2020; Tornaghi 2017), is also reported as crucial for FSI success. Another significant internal consideration refers to the existence of strong leadership within the project (Fox-Kämper et al., 2018; Molenveld et al. 2021).

Similarly to the enablers, 35 studies have documented internal and external barriers to FSI development, as outlined in Table 2. A total of thirteen studies have documented internal barriers, with the most frequently reported ones revolving around organisational dynamics. This includes challenges for managing differences among members' engagement and participation to effectively distribute the workload (e.g. Becker and von der Wall 2018; Davies, Cretella, and Franck 2019; Follmann and Viehoff 2015). Scholars also point out that the sustained engagement required for self-organisation can lead to burnout among key members of the initiatives (Burnett 2023; Hennchen and Pregernig 2020; Spring and Biddulph 2020). Additional organisational barriers include challenges in attracting and managing new members, particularly from vulnerable or younger groups (Burnett 2023; Farrier, Dooris, and Morley 2019; Hennchen and Pregernig 2020). Also, discrepancies over resource allocation and governance dynamics are also highlighted as potential issues that may disrupt the cohesive functioning of food

Table 2. Enablers and barriers of FSI.

	ENABLERS		BARRIERS	
Types of FSI	Internal Enablers (organisational and operational)	External Enablers (regulations, norms and relations with other stakeholders)	Internal Barriers (organisational and operational)	External Barriers (regulations, norms and relations with other stakeholders)
General (all of them)	• Access to stable and easy-access funds (Burnett 2023; Nikravech et al. 2020). • Involvement of paid professionals (Fox-Kämper et al., 2018). • Engaging with media and social media (Spring and Biddulph 2020). • Engaging in community-building activities (Jacob and Rocha 2021). • Leadership (Fox-Kämper et al., 2018; Molenveld et al. 2021). • Volunteer and members' engagement (Fox-Kämper et al. 2018; Hennchen and Pregernig 2020; Lampinen et al. 2018; Nikravech et al. 2020; Ruiner 2021; Tornaghi 2017).	• Easy relation, support, and recognition from the city administration (Certomà and Notteboom (2017); Burnett 2023; Farrier, Dooris, and Morley 2019; Hennchen and Pregernig 2020). • Form partnerships and a network of collaborators (Burnett 2023; Jacob and Rocha 2021; Keech and Redepenning 2020; Kotsila et al. 2020; Lombardi and Costantino 2020; Mackenzie and Davies 2019; Michelini et al. 2020; Molenveld et al. 2021; Morrow 2019a; van der Jagt et al. 2017 and 2019b; Penco et al. 2022). • Having community support (Fox-Kämper et al., 2018; Nikravech et al. 2020).	• Lack of technical skills (e.g. agricultural, accountable or facilitation skills) (Burnett 2023; Tornaghi, 2017). • Conflicts over resource management and governance (Follmann and Viehoff 2015; Jacob and Rocha 2021; Spring and Biddulph 2020). • Difficulty identifying and navigating regulations from across sectors and scales of governance (Burnett 2023; Davies, Cretella, and Franck 2019). • Difficulty in measuring and reporting about the impacts of their activities as they may not have the capacity or resources to monitor them (Davies, Cretella, and Franck 2019; Mackenzie and Davies 2022; Makov et al. 2023). • Fragmentation of users, leading to a lack of critical mass (Nikravech et al., 2020). • Difficulties attracting and managing new members and volunteers, particularly vulnerable or younger groups (Burnett 2023; Farrier, Dooris, and Morley 2019; Hennchen and Pregernig 2020). • Different members' engagement and participation (Becker and von der Wall 2018; Davies, Cretella, and Franck 2019; Follmann and Viehoff 2015; Jacob and Rocha 2021; Lampinen et al. 2018; Spring and Biddulph 2020).	• Lack of integration into urban food policies (Hennchen and Pregernig 2020). • Lack of governmental support (Becker and von der Wall 2018; Burnett 2023; Davies, Cretella, and Franck 2019; Fox-Kämper et al. 2018; Galli, Hebinck, and Carroll 2018; Jacob and Rocha 2021; Kotsila et al. 2020; Lampinen et al. 2018). • Lack of technical advice (Lampinen et al. 2018). • Lack of stable funding (Becker and von der Wall 2018; Burnett 2023; Kotsila et al. 2020; Lampinen et al. 2018; Murphy, Parker, and Hermus 2023). • Lack of permanent spaces or premises (Becker and von der Wall 2018; Bonow and Normark 2018; Davies, Cretella, and Franck 2019; Kotsila et al. 2020; Marovelli 2019; Molenveld et al. 2021; Spring and Biddulph 2020; Škamlová et al. 2020). • Lack of influential leverage on policy formulation (Davies, Cretella, and Franck 2019; Kotsila et al. 2020). • Difficulties in building stable networks with other organisations (Burnett 2023; Lampinen et al. 2018; Spring and Biddulph 2020). • Excess of bureaucracy (Davies, Cretella, and Franck 2019; Jacob and Rocha 2021).

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Table 2. Continued.

Types of FSI	ENABLERS		BARRIERS	
	Internal Enablers (organisational and operational)	External Enablers (regulations, norms and relations with other stakeholders)	Internal Barriers (organisational and operational)	External Barriers (regulations, norms and relations with other stakeholders)
			• Constant engagement by actors in self-organisation can be draining and can lead to burnout (Burnett 2023; Hennchen and Pregernig 2020; Spring and Biddulph 2020). • Adapting to democratic and participatory organising logic (Follmann and Viehoff 2015; Lampinen et al. 2018).	
Community gardens	• Secured land tenure (Fox-Kämper et al. 2018; Hennchen and Pregernig 2020; Tornaghi 2017)			• Limited availability of suitable land for cultivation creates competition for public land use (Becker and von der Wall 2018; Davies, Cretella, and Franck 2019; Follmann and Viehoff 2015; Jahrl, Moschitz, and Cavin 2021; Kotsila et al. 2020; Nikolaidou et al. 2016; Škamlová et al. 2020). • Vandalism (Becker and von der Wall 2018). • Municipal policies and norms such as land use planning regulations can impact community gardens (Davies, Cretella, and Franck 2019; Kotsila et al. 2020; Škamlová et al. 2020;). • Conflicts over neoliberal development policies favouring commercial developments (Bonow and Normark 2018; Davies, Cretella, and Franck 2019; Follmann and Viehoff 2015; Kotsila et al. 2020). • Rigidity of municipal norms (e.g gardens need to be always open) (Becker and von der Wall 2018). • Access to water (Becker and von der Wall 2018; Škamlová et al. 2020). • Contaminated or unfertile soils (Becker and von der Wall 2018; Tornaghi 2017)

(*Continued*)

Table 2. Continued.

Types of FSI	ENABLERS		BARRIERS	
	Internal Enablers (organisational and operational)	External Enablers (regulations, norms and relations with other stakeholders)	Internal Barriers (organisational and operational)	External Barriers (regulations, norms and relations with other stakeholders)
				• External requirements to adopt a specific organisation structure (Becker and von der Wall 2018).
Food redistribution (including gleaning, cooking and eating together)	• Access to storage or cooking infrastructure (Hennchen and Pregernig 2020; Spring and Biddulph 2020)		• Linguistic or cultural barriers for vulnerable populations in training (Davies, Cretella, and Franck 2019; Nikravech et al. 2020). • Lack of infrastructures for intercepted food (Davies 2018; Spring and Biddulph 2020). • Complexity of meeting users' needs (i.e. religious, cultural, taste) with dignity (Nikravech et al. 2020). • Lack of discoursive connection between food insecurity (social priority) and climate change mitigation (environmental priority). (Nikravech et al. 2020). • Manage unpredictable offers of surplus food (Davies 2018). • Inefficiencies in food handling (Michelini et al., 2020). • Modest nutritional value of the food parcels (Galli, Hebinck, and Carroll 2018). • Legal, financial, reputation and operational concerns of potential food donors (Davies 2018).	• Obstacles created by Food Safety and Food Waste frameworks and liability rules (Davies, Cretella, and Franck 2019; Morrow 2019b). • The EU has no legislative guidance regarding donation and "best before" dates, leading many countries (e.g. Hungary) to impose barriers on donating food that has passed its "best before" date (De Pieri et al. 2017). • Internal Market fragmentation results in barriers to establishing the same business model in various Member States (Zurek 2016). • Not clear legal distinction between peer-to-peer services provider on an occasional basis and a professional service engaged in economic activity will, in many regulatory systems, be decisive for legal classification (licensing requirements, authorisations, taxations, and consumer protection) (Davies, Cretella, and Franck 2019; Morrow 2019b). • Regulatory uncertainty about the sharing business models (Davies, Cretella, and Franck 2019). • Paperwork due to signing off liability agreements (Davies, Cretella, and Franck 2019; Morrow 2019b). • Potential competition with existing for-profit similar projects (Spring and Biddulph 2020).

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Table 2. Continued.

Types of FSI	ENABLERS		BARRIERS	
	Internal Enablers (organisational and operational)	External Enablers (regulations, norms and relations with other stakeholders)	Internal Barriers (organisational and operational)	External Barriers (regulations, norms and relations with other stakeholders)
				• Failure of food policies to recognise the diverse ways that people provision food (Morrow 2020). • Criminalisation of practices since it borders on trespassing and theft (e.g. dumpster divers, gleaners …) (Morrow 2019a and 2020). • Potential local opposition due to conceptions of rescued food as dubious (Nikravech et al. 2020). • Social stigma (Cloke, May, and Williams 2017; Cloke, May, and Williams 2020; Morrow 2019b; Nikravech et al. 2020). • Lack of EU guidelines about who should provide and pay for the new logistics infrastructures required for the expanded volumes of surplus food redistributed and who should evaluate the qualities of surplus food and its appropriateness for consumption (Davies 2018).

Source: The authors.

Table 3. Framework to classify food governance practices.

BARRIERS AND ENABLERS OF FOOD SHARING GOVERNANCE			
CATEGORY LEVEL 1	*DESCRIPTION*	*EXAMPLES OF CATEGORY LEVEL 2*	*DESCRIPTION*
1. Structural factors	Aspects of the political, economic, social, cultural, and environmental context that condition FSI activities and organisations	External crises	Experiencing and being impacted by an external Crisis (e.g covid-19)
		Economy	Economic situation in the country/ world shaping the local context
		Food culture	Local/regional production with pride in food culture/traditions as well as food waste cultures
		Political	Political elements shaping the local context (e.g. elections period, institutional jurisdiction, etc).
		Ecological	Ecological elements shaping the local context (e.g. great availability of water or water-use banned in city gardens due to climate-related drought).
2. Regulation	Laws, rules, or other orders or incentives prescribed or granted by an external authority, specifically to limit, control, or encourage FSI activities.	Food safety	food safety regulation, risk governance and liability rules (e.g FSI or food donor liability regarding the food safety of donated food).
		Food waste	Food waste regulation
		Free trade	Free trade policies dominating food policies (e.g. policies favouring commercial developments in empty plots).
		Urban Planning	Support, protection or promotion of FSI (especially urban gardens) through land use planning strategies.
		Grants	Allocating public money to FSI initiatives. Linked to funding.
		Punitive actions	Free trade policies dominating food policies (e.g. policies favouring commercial developments in empty plots).
		Integration	Integration of FS activities into urban food policies.
		Policy coherence	Connecting food policies to other agendas (e.g. sustainability, climate, health).
		Bureaucracy	Bureaucratic processes.
		Temporality	Temporary public leases for gardens, kitchens, etc.
3. Resources	Finance, infrastructure, food (regarding, for instance, quality, quantity or sustained access), paid human resources, common/ public resources, technologies, tools and skills, etc.	Funding	Access to finantial resources.
		Infrastructure	Spaces, infrastructure, and equipment to operate (e.g. storage facilities, kitchens, land, etc) which can be temporal or stable and can be from FSI, public administration or business.
		Staff	Paid people who work for the organisation.
		Volunteers	People who occasionally will help with carrying out the activities.
		Self-exploitation	The act of exploiting oneself for the collective's gain. (which might be necessary to develop the project) - linked to burn-out code.

(*Continued*)

Table 3. Continued.

BARRIERS AND ENABLERS OF FOOD SHARING GOVERNANCE			
CATEGORY LEVEL 1	*DESCRIPTION*	*EXAMPLES OF CATEGORY LEVEL 2*	*DESCRIPTION*
		Technical advice	Technical advise from professionals (e.g. accountant, technician …) wich can be paid or non-paid.
		Institutional support	Support and recognition from public institutions.
		ICT	Information and Communications Technology (ICT) tools.
		Regulatory skills	Skills to navigate regulations to identify issues and opportunities.
		Food quality	Nutricional value or low food quality of the users' food parcels.
		Food accessibility	Fair and organic food made accessible for all.
		Stability	Permanent premises (e.g due to leases or funders from public or private actors) and thus affecting the resources available.
		Water	Water limitations for growing food.
		Soil	Quality of soil for growing food.
4. Discourses	Arguments, opinions and statements related to FSI activities that are represented as facts ("'truths") supported by definitions and theories	Commodity	Food as commodity.
		Right	Food as a right.
		Community-building	Food as a community-building activity.
		Commons	Food as commons.
		Health	FSI as contributing to people's good health (physical or mental).
		Climate	FSI as a way to address climate challenges, impact of climate on FSI.
		Social movements perception	Role of social movements on providing solutions to local problems.
		Public sector perception	Role of public sector on providing solutions to local problems.
		Private sector perception	Role of private sector on providing solutions to local problems.
		Recognition of benefits	Recognition and visibility of the social, economic, environmental and health-related benefits of food sharing activities.
		Opposition	Discourses of local opposition (e.g due to conceptions of rescued food as dubious, or neighbours criminalising practices such dumpster diving or gleaning).
5. Relations between social actors (including power relations)	Modalities of interactions that can shape and influence FSI practices, activities, actors, and issues	Cooperation	Coordinated networks of external collaborators and allies.
		Capacity to influence	Influencing, participating and being included in diverse social processes (coalitions, networks, multi-stakeholder projects, policy processes, etc).
		Opposition	Experiencing opposition (e.g due to conceptions of rescued food as dubious).
		Competition	Conflicts related to competition between spaces in a city (e.g new surpuls cafés relations with already existing cafes).

(*Continued*)

Table 3. Continued.

BARRIERS AND ENABLERS OF FOOD SHARING GOVERNANCE			
CATEGORY LEVEL 1	*DESCRIPTION*	*EXAMPLES OF CATEGORY LEVEL 2*	*DESCRIPTION*
		External damages	External damages: vandalism, dogs, litter.
6. Participation	A range of processes and issues through which the communities of FSI are involved and play a role in issues that affect them	Level of participation/ commitment	Commitment and participation from the people involved in the FSI, in terms of counting with enough staff or people to fulfil the different roles needed to develop the project.
		Burn-out	To become completely exhausted through overwork as a consequence of time-consuming tasks or even self-exploitation within a FSI.
		Community-building activities	Organising community-building activities that bring the FSI group together (e.g dinners, recipe exchange, working sessions to repare infrastructure, etc.).
		Co-design	Co-design sessions with users (shared ownership).
		Vulnerable groups	Exclusion/Fragmentation of vulnerable groups.
		Social stigma	Social stigma experienced by users when receiving food donations.
		Users' needs and perceptions	Complexity of including users perceptions & needs (i.e religious, cultural, taste) in food parcels or meals.
		Donors' needs and perception	Donors' needs and perception (e.g about complexity of donating food).
7. Knowledge	Awareness, understanding, or information on FSI-related issues that has been obtained by experience or study	Technical	Technical and scientific knowledge (e.g knowing how to fundraise, admin skills, etc).
		Creativity/ Innovation	Space for creativity and innovation - to think/act differently outside the box.
		Lived experience	On the ground know how.
8. Internal organization	Elements of the particular manner that FSI organise themselves to achieve their goals	Vision & Leadership	Project with a grand and defined idea of where the project is going and leadership (often shared among different people and roles).
		Adaptative capacity	Organisational flexibility, and being able to function with varying amount of money, resources, volunteers, etc. (e.g. changes of food surplus in food redistribution initiatives).
		Organisation environment	Environment for staff and volunteers in an organisation.
		Quick decisions	Capacity to quickly respond to challenges and make decisions.
		Continuity	Lack of continuity/mechanisms of knowledge & skill transfer (e.g. if the main person leaves, who/how will be the knowledge transferred).
		Regeneration	Capacity to attract new members.

Source: The authors

sharing initiatives (Follmann and Viehoff 2015; Jacob and Rocha 2021; Spring and Biddulph 2020).

Moreover, a total of twenty-seven studies reported on external barriers to food sharing initiatives. The most frequently reported external barriers revolve around the absence of permanent spaces or premises for these initiatives (e.g. Marovelli 2019; Molenveld et al. 2021; Spring and Biddulph 2020). This issue is particularly significant for urban gardens, as the limited availability of suitable land for cultivation leads to competition for public land use (e.g. Jahrl, Moschitz, and Cavin 2021; Nikolaidou et al. 2016; Škamlová et al. 2020). Municipal policies and norms, such as land use planning regulations, heavily impact these projects (Davies, Cretella, and Franck 2019; Kotsila et al. 2020; Škamlová et al. 2020), with conflicts arising over neoliberal development policies favouring commercial developments (Bonow and Normark 2018; Davies, Cretella, and Franck 2019; Kotsila et al. 2020). Another significant external barrier is the general lack of governmental support (e.g. Fox-Kämper et al. 2018; Galli, Hebinck, and Carroll 2018; Jacob and Rocha 2021). This encompasses financial support, regulatory backing, and recognition of the social value of such initiatives. The absence of government support may restrict food sharing initiatives in scaling up, establishing credibility, and overcoming bureaucratic hurdles. In fact, the lack of stable funding has also been highlighted as a primary barrier for Food Sharing Initiatives (FSI) (Becker and von der Wall 2018; Burnett 2023; Kotsila et al. 2020; Lampinen et al. 2018; Murphy, Parker, and Hermus 2023).

A new framework to analyse food sharing governance enablers and barriers

As part of this scoping review, we analysed the literature to identify and characterise food sharing governance enablers and barriers. The codes used to analyse the data and establish relations across them lead to the identification of analytical categories. These categories were also discussed and validated in two participative workshops with European FSIs and academics (see methodology section). The result of this process is an analytical framework with eight categories to classify governance elements that can be articulated as enablers, barriers or both of FSI. These categories can draw attention to specific aspects of both internal and external governance practices and contribute to understanding the different elements that may constitute barriers and/or enablers for FSI. The eight categories are:

(1) Structural factors: Aspects of the political, economic, social, cultural, and environmental context that condition FSI activities and organisations.
(2) Regulations: Laws, rules, or other orders or incentives prescribed or granted by an external authority specifically to limit, control, or encourage FSI activities.
(3) Resources: Finance, infrastructure, food (regarding, for instance, quality, quantity or sustained access), paid human resources, common/public resources, technologies, tools and skills, etc.
(4) Discourses and values: Arguments, opinions, statements and underlying values related to FSI activities that are represented as facts ("truths") supported by definitions and theories.
(5) Relations between social actors (including power relations): Modalities of interactions that can shape and influence FSI practices, activities, actors, and issues.

(6) Participation: A range of processes and issues through which the communities of FSI are involved and play a role in issues that affect them.
(7) Knowledge: Awareness, understanding, or information on FSI-related issues that has been obtained by experience or study.
(8) Internal organisation: Elements of the particular manner in which FSI organise themselves to function and achieve their goals.

These categories can also be subdivided into a secondary dimension that helps ground their meaning in the different topics involved. Some of the items in this secondary dimension may be important across FSI areas, such as funding being considered a resource that can act as an enabler or barrier for FSI. Others, however, are specific to certain governance processes. For example, in the case of urban gardens, healthy soil and water availability are entities that help understand what kind of resources may act as barriers or enablers for these particular initiatives. Table 3 shows both the main classifying categories for food sharing governance and some examples of the secondary dimension affecting initiatives in food waste redistribution and urban gardens.

This is a novel categorizacion for analysing barriers and enablers affecting FSI. It builds on existing food governance literature. On one hand, it reaffirms previous research that focuses on the governance of specific projects and initatives where organisational forms; internal and external regulations, funding, resources, discourses, values and trust are highlighted as key governance dimensions (Cohen and Reynolds 2014; DuPuis and Gillon 2009; MacRae and Lay-Palmer 2010; Manganelli, Van den Broeck, and Moulaert 2020). Additionally, the identification of actors and their relations, as well as associated tensions, including power struggles, is frequently highlighted (Campbell and MacRae 2013; Tornaghi 2012). On the other hand, contributions stemming from the analysis of specific initiatives also connect to broader discussions on the elusive definition of food and urban food governance (as mentioned above), which, among others, identify processes, practices, discourses, institutions, actors, relations, place-based dynamics and structures as key governance elements (Margulis and Duncan 2016; Moragues-Faus et al. 2023, 2024; Yap 2023). Our framework clearly incorporates important elements from the existing literature. However, our contribution to advancing the field hinges on providing a practical tool that helps to identify governance enablers and barriers for specific initiatives. This is based on a scoping literature review that synthesises existing works. In light of the limited definitions and research on the role of governance in shaping food sharing, this framework serves as an initial step in identifying key internal and external governance elements that influence FSI. Notwithstanding, further elaboration in terms of mapping relations across categories and scales of urban food governance, application to specific cases and also broader engagement with normative definitions of good governance could constitute valuable next steps.

Future research considerations

The selected literature has also highlighted multiple research opportunities to advance knowledge on FSI. First, in relation to the type of FSI, some authors mention the need to theorise and provide more empirical data on cases related to cooking and eating in public spaces (Hennchen and Pregernig 2020). Our analysis also shows other

understudied areas, specifically urban foraging, gleaning, seed saving, and community composting. Also, some authors point out the need for studies employing a multi-site and comparative model to delve further into the importance of diverse contexts, examining the narratives and impacts of various initiatives and models (Farrier, Dooris, and Morley 2019; Hennchen and Pregernig 2020). Moreover, few studies explore how these initiatives (re)produce identity, meaning, and functions (Keech and Redepenning 2020) in their respective contexts. The importance of context also evidences the need for more geographical diversity, especially the need for conducting more studies in Eastern Europe.

Additionally, several studies outline the need to improve understanding of the impacts of FSI (Davis, Cretella and Franck 2019; Davies, Rut, and Feeney 2022; Marovelli 2019). As Marovelli (2019) points out, these initiatives cannot be solely based on quantitative indicators such as the amount of food grown, distributed, or donated. It is essential to consider unmeasurable variables and intricate relationships, such as the social and ecological systems they help create and sustain. It is also important to note that some authors call for a more critical approach to FSI, rather than assuming its transformative potential (see discussion).

Another topic for future research is related to the changing governance structures of FSI (Fox-Kämper et al. 2018). For example, in light of transformations in the surplus food redistribution initiatives governance, additional directions for further research point out the need to examine the influence of narratives like "the right to food" within the realm of food redistribution initiatives and explore the emerging connections resulting from the growing intersection of social movements and complementary initiatives with various food aid practices (Hebinck et al. 2018). Also, some authors underline the need to provide information about the socio-demographic profile of the people who initiate and engage in food redistribution initiatives, as well as investigate their recipients' perspectives (Clocke, May and Williams 2017; Nikravech et al. 2020). Additionally, Davies (2018) also points out the need to better understand the nutritional value of the distributed food.

Lastly, our results show that there are some additional knowledge gaps related to FSI. The first gap concerns the lack of robust accounts of food sharing governance and its role in FSI. The second addresses the lack of studies incorporating more-than-human perspectives in the field of urban food sharing governance. The third, even if only indirectly connected to FSI, concerns urban water sharing governance as a broad, understudied area that is becoming increasingly relevant in the face of the climate emergency.

Discussion

The scoping review shows that the intersection of food sharing, governance and cities constitutes an expanding research field. However, as stated before, in many instances, governance remains undefined and therefore, articulating the knowledge created around the role of governance in urban food sharing remains challenging. Not least, the low engagement with broader urban and food governance debates limits the participation of the food sharing field to progressing knowledge in these areas, but also benefit from their advancements, including the development of more critical perspectives (see for example Moragues-Faus 2020; Yap 2023; Zerbian et al. 2023).

While most reviewed literature stresses the benefits of FSI and implicitly assumes its transformative potential, some scholars have warned against considering their local activities and impact *inherently* transformative (e.g. Follmann and Viehoff 2015; Hebinck et al. 2018). In fact, several scholars have also pointed out limitations and potentially unwanted dynamics linked to the spread of these initiatives. For example, Véron (2023) argues that many FSI, such as community-driven cafés, heavily rely on individual actions and a focus on consumer behaviour, thereby diminishing the scope of political action and limiting their influence as agents of social transformation. Thus, while FSI may be advancing social change in some aspects (e.g. raising environmental awareness), they may also be simultaneously contributing to reproducing neoliberal, unjust social patterns on a different level (e.g. encouraging merely consumer choices as a means of social change without targeting problematic structural elements). This also aligns with previous criticism, beyond the scope of this review, which considers them as neoliberal expressions of self-centred citizens (e.g. Pudup 2008). Also, broader concerns have been expressed by other scholars on the co-optation potential of community gardens to advance neoliberal urban planning (Certomà and Notteboom 2017; Follmann and Viehoff 2015).

Examining the transformational potential of food and redistribution initiatives focused on developing logistic strategies to channel surplus to prevent food waste and address food insecurity deepens the debate in different directions. There are, for example, unresolved frictions between the management and distribution of surplus food performed by some FSI, and the actual reduction of *food waste production,* which is broadly agreed to be crucial to tackling the climate emergency (e.g. European Commission 2008). Some of the frictions stem from the lack of discursive connectivity between the climate emergency and food poverty articulated by some food surplus redistribution initiatives (Nikravech et al. 2020). This lack of connectivity weakens the multi-solution opportunities generated by bridging these two topics. Second, many food redistribution initiatives may not *substantially* reduce the amount of GHG emissions linked to the surplus food they manage (either by food donations or by food recovery), since they redistribute this food once the production of food waste has already taken place. While redistributing surplus food does reduce some environmental impacts (Damiani et al. 2021), effectively addressing the production of food waste requires facing the "Prevention Paradox" (Messner, Richards, and Johnson 2020) and shifting action priorities from surplus redistribution to prevention at the source. At the same time, however, this shift could reduce the availability of food surplus needed to distribute between vulnerable groups and jeopardise FSI projects, hence the paradox. Since both overproduction and surplus are necessary to maintain the current unsustainable and unfair globalised food system, food sharing practitioners, as well as the private and public sectors concerned with these topics, might need to engage further with these contradictory spaces and debates. This requires, among other things, the development of bridging narratives, actionable steps, and additional alliances to connect climate change and food poverty, both politics and praxis, and effectively reduce food waste at source (and their related GHG emissions) while addressing hunger. To achieve this, it is crucial to explore different policies that directly address poverty, considering issues such as housing, work, nutritional quality, and the stigma surrounding food insecurity, among others, while reducing the dependency on surplus food from the need for food waste production.

Moreover, while food surplus redistribution charitable initiatives well-intentionally aim to meet an immediate urgency, they often reproduce social inequalities and are incapable of addressing the root causes of hunger (Morrow 2019b). They provide palliative short-term solutions to deal with a specific situation of food deprivation, but they are incapable of addressing structural inequalities, which actually lead certain social groups to situations of food insecurity. Also, since the nutritional quality of the food parcels is often questionable (Galli, Hebinck, and Carroll 2018), another dimension of the same debate is whether food redistribution can even be considered an actual strategy to promote healthy diets (Nikravech et al. 2020).

While Cloke, May and Williams (2017) agree that most of these types of initiatives do not advance effective solutions to structural poverty problems, they have added nuances to this debate by arguing against *merely* articulating a black-and-white ideological critique on food surplus redistribution initiatives. Interestingly, these authors suggest expanding the scope of this analysis and acknowledging that, while the effectiveness of food redistribution initiatives in combatting poverty is probably low, they can generate and sustain crucial spaces of care, encounters, and political awakenings during troubled times. Thus, recognising these valuable contributions adds shades of grey and complexity to the debate on the transformative potential of FSI.

Hence, when discussing the scope of the FSI's transformative potential, it is critical to avoid preconceived idealisations of the activities and also overly ideological explanations that may result in oversimplified portrayals of its activities. Instead, a more compelling approach entails comprehending the ambiguous impacts of the FSI within the specific contexts in which they operate. This in-context understanding resonates with invitations to explore food governance under the lens of a politics of care (e.g. Cloke, May and Williams 2017; Wickson et al. 2017), which might offer new opportunities to repolitise FSI-related debates within alternative and suggestive frameworks.

Conclusion

This scoping review addressed the governance of food sharing initiatives in European cities. We presented both quantitative and qualitative results of the review, including the typology of activities and the geographic distribution of the FSI reported, as well as the environmental, social, and economic benefits advanced by these urban initiatives, as highlighted in the literature. The research has also examined the internal and external governance dimensions and presented the main reported enablers and barriers for FSI reported by the selected studies. Finally, we discussed a key debate emerging from the literature on the transformative potential of FSI, highlighting the importance of keeping realistic expectations regarding FSI, while also avoiding the articulation of only macrostructural explanations that may overshadow complementary understandings of the social phenomenon.

There is scant articulation of the what and how of governance in the food sharing field. This paper contributes to the food sharing governance literature in a number of ways. Firstly, the quantitative and qualitative analyses provide an overview of the selected literature that helps identify gaps and guide further empirical inquiries. Secondly, the resulting cluster on FSI benefits helps to develop a comprehensive understanding of the polyhedric benefits of FSI. This understanding can be leveraged in various contexts to foster and

expand these initiatives. Thirdly, delineating internal and external governance dimensions and analysing barriers and enablers paves the groundwork for a new framework for studying FSI obstacles and enablers. The identification of eight categories for classifying enablers and barriers - structural factors, regulation, resources, discourses, relations (including power relations), participation, knowledge, and internal organisation- offers a structured approach to understanding how different food sharing governance elements might support or hinder their development. Finally, a nuanced discussion is presented to facilitate a better understanding of the limitations of FSI in effecting social change. Our study, therefore, constitutes a key contribution to identifying the state of the art on food sharing governance in European cities, providing new tools to support the identification of key governance elements acting as barriers or enablers and ultimately calling for a more critical engagement of this literature with the broader governance scholarship to support the contribution of food sharing to build a livable and, necessarily shared, future.

Note

1. See SHARECITY (https://sharecity.ie/) or CULTIVATE (https://cultivate-project.eu/).

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