Powering transformative practices against food poverty with urban planning

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Abstract

Food is back on the agenda. After the global financial crisis of 2008, food insecurity became rampant even in high-income countries, and COVID-19 has only worsened the situation. Action is needed to build emancipatory practices dealing with food insecurity. The cultural and technical legacy of urban planning can be seized and enriched with the principles of the commons and the ethics of care. A case study in Madrid, Spain, provides clues about how to envision a future in which urbanism backs agroecological and right to food movements to design resilient urban food systems. More than 400 free food distribution nodes operate in the city, yet over 14% of the population is food insecure. This study analyzes public, private, and community programs to address food poverty, as well as community gardens, municipal markets, food-related business incubators, and public centers with potential community kitchens. Urban planning helps broadening horizons of possibilities, activating the collective imagination of new ways to connect needs and—often unnoticed—resources. Such an approach contributes to progress in reducing dependencies from the large industrial food sector. Urban planning provides tools for applying the qualities of agroecological food systems supported by the community to define strategies adapted to each specific context. In mature contexts, it helps transposing the social reorganization into the material space in the neighborhood.

1 INTRODUCTION

In view of the huge challenges that urban food systems face, it is worth exploring how to seize the cultural and technical legacy of urban planning. After all, urban planning is a consolidated discipline that operates as a public competence. The social function of property and the general interest for society are two main principles to guide the design of spatial plans (in the case of Spain, these principles are enshrined in national and regional legislation). Urban planning enriched with an emergent culture of commoning (Özkan & Büyükşarac, 2020), a feminist perspective of ethics of care and food justice (Sachs & Patel-Campillo, 2014) and the complex-system design with nature of agroecological urbanism, would result in an updated spatial planning approach that taps new opportunities for building more resilient food systems and overcoming the failures of its predecessors.

Food is already in the political arena of Western societies, not only because the food system is one of the key drivers of environmental degradation (European Commission, 2020)
and climate emergency, but also because in the aftermath of the global financial crisis of 2008, food poverty and food insecurity became a severe problem in high-income countries (Davis & Geiger, 2017). This concern has been echoed at the local level, with city councils’ adoption of food policies as an “entry point to ensuring improved well-being through availability of and access to proper nutrition for all city dwellers” (Cabannes & Marocchino, 2018). The Milano Food Policy Pact or the C40 Good Food Cities Declaration are just some recent examples of these new policies, which in any case do not offset the budget deficits and public social spending cuts (Rossini & Bianchi, 2020).

Food insecurity intensified during the 2020 COVID-19 pandemic, ravaging a world that had not yet fully recovered from the 2008 crisis. It is expected that food poverty will worsen due to the economic downturn caused by the pandemic, which will result in job insecurity and deepen inequality.

Food insecurity is but one of the expressions of the dominant system’s inability to insure adequate living conditions for all. Providing food is not enough to address the structural problem, which is rooted in social and economic exclusion and precarity inherent in the tension between capital interest and social reproduction (Orozco, 2014). In fact, although work was defined as the best route out of poverty (ILO, 2003), the working poverty rate (21% globally by 2018, according to ILO) reveals the steep increasing proportion of the population living in poverty despite being employed. In times of economic crisis and public social budget cutbacks within shrinking welfare states, there has been a rise of alternative economies (Calvário & Kallis, 2017; Rakopoulos, 2014). These two dynamics reinforce each other. It has been pointed out that food assistance and initiatives to share food often unintentionally facilitate a neoliberal agenda of dismantling the welfare state (Skordili, 2013). Such initiatives “face criticisms for perpetuating inequalities between donors and recipients and redistributing food but not wealth or power, thus treating the structural inequalities of capitalism as logistics problems that can be solved without addressing equity or justice in our food system and economy” (Morrow, 2019, p. 202).

There are, nevertheless, groups addressing the problem from an emancipatory approach, and proposals to reconstruct “food as a common” (Vivero Pol, 2013). Antipower theory challenges current hierarchies and advocate for mitigating power by expanding decommodified spaces (Calvário & Kallis, 2017; Holloway, 2002). In this sense, we find the concept of food commons useful in advancing this de-commodification and building emancipatory forms of addressing food insecurity. Urban food commons are defined as a “shared immaterial or material resource in urban spaces that is food-related, which is co-owned and/or co-governed by its users and/or communities according to their own rules and norms. The community sustains, builds up, and uses the food resources via growing, distributing, processing, storing, gathering, monitoring, or knowledge-generating” (Scharf et al., 2019, p. 3).

We need to redefine the relationships between the public (state and governments), the civic (the community), and the private (the market) “to create the space necessary for commoning practices to expand” (De Schutter et al., 2018, p. 374). This paper explores what urbanism can contribute to create these new spatial conditions. It builds on the premises that we must move beyond the rights-care split (Mooten, 2017), and that urbanism has the potential to facilitate both the spatial reorganization and the material redistribution of power and wealth.

Three key questions have guided our research: Which local resources can be considered valuable assets to pursue ad-hoc strategies to address food poverty in spatial plans and how can they be activated? Can emancipatory socioeconomic structures be planned around food? What can urban planning contribute to building a network of spaces for care and empowerment around food (including processing, collection, and distribution centers) in vulnerable neighborhoods?

Because of its socioeconomic and political context, Madrid, Spain, a city of 3.1 million inhabitants, signatory of the Milano Urban Food Policy Pact, and implementor of a sustainable and healthy food strategy since 2018, provides an interesting case study to confront these research questions. Intra-urban inequalities are coupled by higher levels of food insecurity and malnutrition in most deprived neighborhoods. Malnutrition conveys both undernutrition and overnutrition; the latter is reflected in higher rates of obesity and overweight and is prevalent in our case, as a result of poor diets with food containing mostly empty calories from added sugar and fat. As explained in the following sections, we developed a methodology to understand the dimensions of the problem and to define mechanisms to connect the needs with available resources, considering both self-supporting communities and underused spaces and buildings, as well as
institutional policies and plans. We approach the challenge from an urban/spatial planning perspective, assuming that the spatial dimension is critical for gaining autonomy, dignity, resilience, and diversity that characterize radical transformative practices around food.

2 BACKGROUND AND METHODS

2.1 Madrid, food insecurity, food strategy, food alternative networks

Madrid, the capital city of Spain, has 3.1 million inhabitants and its functional urban area has 6.5 million inhabitants. Emblematic authors like Saskia Sassen position Madrid in the top ranks of global cities (Sassen, 2002), and the region of Madrid aspires to consolidate as a large service hub, while farming has become irrelevant in terms of its contribution to the GDP and to the workforce. Being a relatively successful city did not insulate Madrid from the impact of the financial crisis in 2008. When it hit the EU economies in a systemic manner, the effects were more pronounced in vulnerable neighborhoods. There is no official census on food poverty in Madrid, but according to data from the ICV-INE (Quality of Life Indicators from the Spanish Institute of Statistics) by 2014, 27.6% of the population of Madrid was at risk of social exclusion, one-third of them being children. The situation has improved, and by 2019 the percentage had been reduced to 19%. However, the recovery has not been homogenous, with populations lagging the furthest behind experiencing the least improvements.

A survey conducted by Caritas (one of the Spain’s main charity institutions), which includes specific questions about hunger and factors of food insecurity, shows that in 2018 over 14% of Madrid’s population were food insecure. Whereas food insecurity in its lighter form has been reduced, severe food insecurity has worsened (Serrano Pascual et al., 2020). The problem has been exacerbated by the COVID-19 pandemic (Mesa Derechos Sociales, 2020).

Both the economic crisis and the social mobilization in response had a qualitative impact on the food geography of the city of Madrid. By 2011, grassroots groups set up new community gardens in almost every neighborhood (Morales Bernardos et al., 2016). The emergence of new agroecological farmers followed a slower pace. This new urban farming has much in common with experiences of urban agriculture in the global South. They operate on the basis of small scale, and usually start under precarious conditions, but many of them also share a culture of cooperation and solidarity, a commitment to agroecological principles, and an opposition to the commodification of food (Simon-Rojo et al., 2018). Since its inception in 2015, the civic platform Madrid Agroecologico, which brings together a wide range of actors from both the rural and the urban worlds, has claimed access to underused spaces to be transformed into productive nodes and operated by social cooperatives and associations. There have been several attempts to connect agroecological projects with food poverty. Although they did not result in practical experiences, during the COVID-19 pandemic, some initiatives for binding agroecological farms and solidarity pantries were launched and are on their way to consolidation.

Carta contra el Hambre (Charter Against Hunger) is another platform contesting conventional public policies addressing food poverty. They assume that the right to food must be intertwined with the concurrent achievement of other rights such as decent employment and social benefits (including basic income) to live in dignity. Then, they demand an audit on food poverty and its root causes, changes in legislation, and alternatives to “giving handouts” and charity, such as food cards to buy perishable food in local shops and the development of a network of food distribution nodes at the district level. They also called for Public Centers of Food Culture and Household Economy with kitchens and multifunctional spaces, providing a meeting, training, exchange, and advisory hub for residents.

At an institutional level, the city of Madrid is committed, as signatory of the Milano Food Policy Pact, to ensuring sustainable and healthy food for all, based on a rights approach, and reducing food loss and wasted food. By 2018, the Food Strategy (Morán Alonso & Simón Rojo, 2018) was approved and the city council has also signed the C40 Good Food Cities Declaration, which pledged to use municipal “procurement powers to change what kind of food cities buy, and introduce policies that make healthy, delicious, and low-carbon food affordable and accessible for all” (C40 Cities, 2019, p. 1).

2.2 Methods: Neighborhood scale

Campaigns for just cities are waged at different geographical and relational scales (Morrow & Parker, 2020). For our purpose, we adopted the concept of the city-neighborhood, understood as the spatial unit that provides a sense of security to its residents. Within cities, the neighborhood is the essence of urban reality (Lefebvre, 1996) and conveys identity and livability. It is the smallest unit that contains enough complexity and variety of distinctive of urban life, while also allowing individuals to generate a sense of belonging, identity, and roots. According to the seminal work of “City of Citizens” (Alguacil et al., 1997) in Spain, the city-neighborhood ranges between 20,000, and 50,000 inhabitants and contains a variety of different lifestyles and cultures. That work defined the typology and standards of public facilities needed to achieve a vibrant and complex city with empowered communities.

To realize how spatial planning may contribute to connecting these facilities with agroecological projects and
crafting food-related emancipatory alternatives, we first get the overall picture of the city neighborhoods in terms of income, food insecurity, and obesity rates. The National Institute of Statistics provides average income per capita or per household for each census section (around 2,500 inhabitants); whereas for food insecurity and obesity, we rely on the reports provided by the city of Madrid (Ayuntamiento de Madrid, 2019; Díaz Olalla et al., 2018). The former is available at a neighborhood level, and the latter refers to children’s food insecurity and provides data for three groups of districts. As the map (Figure 1) clearly depicts, a northwest-southeast divide is recognizable. Threshold values considered for the multicriteria assessment (average income, food insecurity, and obesity) resulted in the selection of the neighborhoods in which the resource analysis was conducted. For example, a neighborhood whose population has an average annual income under €10,000 per capita, with over 15% suffering food insecurity and over 50% of children being obese or overweight, result in a value of 8. All the neighborhoods rated between four and six were selected for further analysis.

Different food assistance models operate in parallel in the city. Through an urban planner lens, we ask how their material practices “enable social change and improve everyday life” (Morrow & Parker, 2020). We elaborate a synthesis of the main resources and their potential in a scenario of structural change. The analysis unfolds into two categories, the first one dealing with public policies and the second one with places as a compound home to the relational environment to tackle food insecurity. The latter includes ongoing initiatives such as traditional food banks, solidarity pantries, and alternative networks, and also contested spaces reclaimed for collective purposes, whether already achieved (community gardens) or not (community kitchens or food commons in municipal markets). I have been involved in several of the initiatives analyzed. This affords a deep insight into the processes and the people engaged, albeit a subjective one. The vision emanated from this participatory action research is complemented with systematic document analysis and intensive data mining (Table 1).

The second analysis focuses on those neighborhoods with the worst combined indicators of income, food insecurity, and obesity and is intended to identify available resources, initiatives from the agroecological productive sector, and other social and cooperation networks that provide food for people at risk of social exclusion. Other potential local resources, including those that might emanate from public policies and plans, are also considered. In the end, we suggest which outcomes can be understood as steppingstones to sustainable food system transformation (Hebinck et al., 2020), best applied when dealing with food. Not all features are captured (i.e., vegetable donations from agroecological farmers or shopkeepers to mutual support groups) but provide an overview for the spatial and relational analysis to reveal where the context is mature to implement complex urban planning processes.

3 | RESULTS

3.1 | Characteristics of food assistance models

If considered in terms of ethics of care, dignity, emancipatory, and transformative practices, food assistance models can be grouped into three main categories: municipal food-related programs, nongovernmental organizations (NGOs) assistance programs linked to European Funds and Solidarity pantries, and groups for care and mutual support.

3.1.1 | Direct municipal food programs

There is a wide set of public policies that address food poverty or groups of people that deserve special attention as they face food insecurity. The municipal Department of Family, Equality, and Welfare works together with the Regional Government (Comunidad de Madrid) in the School Lunch Program, which benefited over 15,000 pupils during 2019 (€6,300,000 during the first semester of 2019). The department runs other programs to provide food purchasing assistance to over 5,000 low-income or elderly households. There is also a specific program for home delivery of food to homebound and frail elderly people (62% over 80 yr old and living alone). Also, each district board handles other programs that target specific groups at risk. They are not homogeneous but usually provide meals in the afternoon for children and teenagers or free breakfast in kindergartens and schools. In 2019, one of these districts launched a Food Card that will be extended to the rest of the city.

In these programs, the unit of intervention is the household; they do not work on community concepts and have no spatial expression—except for the office of social services at the District. Therefore, beyond providing an overview of the magnitude of the problem of food insecurity, no direct urban design implications related to these programs are identified.

3.1.2 | NGOs assistance programs linked to European Funds

Food Bank (Banco de Alimentos) is the main nonprofit charity specializing in free food collection to be distributed free of charge, among charities engaged to give assistance to people in need. They have developed precise supply and delivery logistics and count on a warehouse donated by Mercamadrid,
FIGURE 1  Income, food insecurity, and children’s obesity across Madrid’s neighborhoods. Data from INE and Ayuntamiento de Madrid.
the largest food distribution platform in Spain and the biggest perishable food market in Europe.

Large retail companies in Mercamadrid donate surplus and nonmarketable food, mainly fruits and vegetables. (In 2019, Mercamadrid donated almost 2,000,000 kg to 139 NGOs.) The Food Bank periodically launches campaigns in supermarkets, companies, and schools (e.g., Operacion Kilo). These campaigns aim to collect food, raise awareness of the problem of hunger in society, and mobilize a high number of volunteers (almost 25,000 in the December 2018 edition, in which over 2,800,000 kgs were collected). The Food Bank also collects fruits and vegetables supplied by agricultural companies under the Withdrawal Program of the European Union. They constitute an important base (30%) of the total amount of food distributed, and it is essential in terms of its nutritional value. The Food Bank, together with the Red Cross, are the two main receptors of the food aid budget from the Fund for European Aid to the Most Disadvantaged.

Food collected by the Food Bank or Red Cross reaches people in need thanks to a network of local associations and charities. The map (Figure 2a, 3) locates the entities that distribute the food offered by the Food Bank. Unfortunately, the Red Cross provides no information about the network of food distribution points.

The use of food banks has increased dramatically in the last two decades. It was estimated that 6% of the population in the region of Madrid (almost 400,000 people) depend on food banks, soup kitchens, or solidarity food pantries for hunger relief (Nogués Sáez & Cabrera Cabrera, 2017). Over 300 food distribution points were identified in the city of Madrid, while another 20% not detected might also be operating (information pre-COVID).

### 3.1.3 Solidarity pantries and groups for care and mutual support

In the wake of the deep financial crisis and social cutbacks, plain assistance policies were supplemented by self-management structures. Care is often linked to domestic life. When it is carried outside the private realm, we usually talk about care services (Solís et al., 2018). Grassroots groups emerged in 2011. They intentionally move beyond the private and the public domains, entering the food commons realm. Solidarity pantries operate on a “reciprocity as collective action” basis (Carbonero et al., 2018). They see themselves as “instruments of resistance and community solidarity” (Red de Solidaridad Popular, 2017) that erode hierarchies and differences between donors and recipients.

During the COVID19 lockdown, when movement was restricted and only citizens could leave home for work or essential activities, groups for care and support to people in vulnerable situations proliferated. Most of them included a reference to the neighborhood in the name they adopted, so as to be easily recognizable. More than 60 solidarity pantries were active until August 2020, providing food for over 50,000 inhabitants in difficult situations. Figure 2b includes those still operating in the city by the end of 2020. In practice, they “still largely depend on the same type of voluntary giving” (Carbonero et al., 2018),

| Type                                      | Component and status                   | Source of data                                                                 |
|-------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------|
| Public policies                           |                                        |                                                                                |
| Food-related social programs              | Food (social services), Consolidated   | Madrid City Council, annual report of the Food Strategy^a                        |
| Urban strategy: Productive neighborhoods  | Productive space, proposal             | Madrid City Council, Strategic Planning Unit^b                                 |
| Neighborhood regeneration program         | Public space, Consolidated             | Madrid City Council, Urban Regeneration Strategy^c                             |
| Relational environment                    |                                        |                                                                                |
| Food banks                                | Food, consolidated                     | FESBAL (bamadrid.org/banco-alimentos)                                         |
| Solidarity pantries                       | Food, evolving                         | Mutual support network^d                                                       |
| Social tissue                             | Culture, social action, local character| Madrid Open Data, CSV list of associations                                      |
| Community gardens                         | Space, consolidated                    | Madrid City Council, Community Urban Gardens Program                           |
| Community kitchens                        | Space, potential                       | Madrid Open Data, CSV cultural and elderly centers, public schools             |
| Municipal markets                         | Space, potential                       | Madrid Open Data, CSV on municipal markets                                      |

^ahttps://diario.madrid.es/madridalimenta/documentacion/.
^bhttps://estrategiaurbana.madrid.es/barrios-productores/.
^chttps://estrategiaurbana.madrid.es/estrategia-de-distritos/.
^dhttps://redesdecuidados.org/redes-de-cuidados-por-barrios/.
FIGURE 2 Resources to be activated in an emancipatory approach to food insecurity

(a) Free Food Distribution

(b) Community Gardens

(c) Kitchen in Public Facility

(d) Municipal Market/Training

FIGURE 3 Neighborhood potential for mainstreaming food commoning
but some have aligned with agroecological projects. As Madrid Agroecologico (https://madridagroecologico.org/tag/despensas-solidarias/) explained, the response to the food emergency and insecurity should not be based on providing food that is bought (or donated) in large supermarkets, which are part of the same production and consumption system that generates exclusion.

Both food banks and solidarity pantries are in the spotlight to learn about logistics and organizational aspects related to food collection and distribution, but also under which conditions community ties are developed, and which are the constraints to get access to agroecological food. An urban planning approach aimed at powering transformative practices needs to take as a basis the network of these initiatives.

### 3.2 Places for building resilient communities around food

Trying to cast light on underused or potential resources to mobilize, we explore diverse municipal policies and plans, as well as grassroots initiatives to transcend the assistance character of traditional food aid programs. We aim to identify how, if ever, urban planning may contribute to connect resources with the stakeholders and develop a culture of commons and care.

#### 3.2.1 Community gardens

Although organic vegetables are cultivated, food provision is of secondary importance in Madrid’s community gardens, compared with the importance given to building community liaisons and networks at a neighborhood level. They are self-management spaces for social experimentation, open to anyone interested, and free of charge. Gardening activities are undertaken on a collective basis, not subdivided into individual plots, and they constitute agroecological learning labs as places for environmental and social awareness. These gardens have catalyzed some groups of consumers to engage actively with new peri-urban farmers. They flourished with the 15-M social movement in 2011, aligned with the “occupy the squares” motto, which started as squatter gardens reclaiming public spaces as the arena for collective action. By 2015, the city council launched a municipal program of community gardens, and most of them were regularized, winning a legal (temporal) status. Most of the peripheral areas of the city are well covered and 73% of the neighborhoods with highest combined indicators of food insecurity, obesity, and low income (Figure 2b) do have a community garden.

During the lockdown (March–May 2020) forced by COVID-19, 21 of these urban gardens were involved in a solidarity harvest plan, supported by the municipal Department of Environment. It aimed to supply food banks and self-managed care networks to bring fresh vegetables to households with difficulties accessing adequate food. There were some previous initiatives connecting urban gardens and food poverty. The most outstanding one took place in a historical park: Quinta de Torre Arias. Two gardeners arranged 120 square meters for a solidarity garden where they grew vegetables that were donated to the local Assembly of unemployed people and its solidarity pantry. By so doing, they decided that besides taking care of the park and plants, they extend an ethic of care to the people. Their commitment was also a claim to orientate their work as civil servants to meet the needs of the neighbors. Their example is controversial and far from being generalized, and other municipal gardeners remain suspicious that such an approach would imply extra work that goes beyond their contractual obligations as civil servants.

#### 3.2.2 Productive neighborhoods plan

By 2019, the city council began to work on a “Productive Neighborhoods Plan” (Barrios Productores) within Madrid’s Urban Design Strategy. The plan draws on improving poorly maintained open spaces located between blocks in residential neighborhoods that were built during the 1950s and 1960s. It has identified open spaces by housing blocks and roofs suitable for cultivation and energy production. It aims to facilitate access to a healthy diet in these areas, to improve employability, and to promote local entrepreneurship related to food, nutrition, and cultivation of organic fruit and vegetables. Municipal technicians also recognize that it is a good solution to maintain these interblock areas, without additional costs to the public purse. In spite of the name, they are not conceived with a neighborhood perspective, but as a sum of plots located wherever the municipality detected an opportunity.

Six-hundred seventy-eight hectares of open spaces between blocks are suitable to host urban agriculture projects in 44 neighborhoods included in the Special Plan for the Increase and Improvement of Public Networks in Public Promotion Neighborhoods. The municipal Agency for Employment will offer agricultural training programs, with internships in the plots equipped for that purpose within the project. The plan will be deployed gradually, starting with two plots in 2020. The city council has an annual budget of €14 million to implement an irrigation system in each plot, as well as to implement renaturation actions and pedestrian routes (Ayuntamiento de Madrid, 2020).

Local associations have generally welcomed the proposal. Nevertheless, they are wary that according to the master plan, many of the plots included in the program are assigned to host public facilities. Public land being transferred to
private enterprises or start-ups will be contested. They also argue that public land should not be assigned to start-ups or private companies, but to social projects and entities. The civic platform Madrid Agroecologico points out that the call for tenders to prepare the plots should include social criteria and be split into small lots. If not, the lion’s share of the investment will benefit large companies from the building sector, and the city council loses an opportunity to lead by example.

During October 2020, a participatory online design process was open. Six-hundred twenty-three proposals were submitted, over 50% of which prefer public facilities such as libraries or parking sites and green areas. The results of the consultation help checking neighbors’ interest in food gardening.

3.2.3 Community kitchens and food processing shared facilities

Community kitchens are not yet consolidated in the city of Madrid. Both the local movement for the right to food (Carta contra el Hambre) and the agroecological platform (Madrid Agroecológico) praise their virtues as a cornerstone resource with huge potential for combining ethics of care and rights. The former reclaims public cooking facilities made available for social groups as places for community building, meeting around food, sharing culinary practices, and improving cooking, nutritional, and domestic management know-how to handle energy poverty (avoid meals that rely on an intensive use of energy like baking in oven). There are a few examples, like the Community Social Center in the Tetuan neighborhood, which on a public social partnership offers a meeting place for mutual support to local NGOs. They carry out cooking courses and workshops aimed at developing culinary and working skills that enable participants to start productive projects. In Tetuan as well, the Cultural Center Eduardo Úrculo runs a cross-cultural kitchen with cooking workshops for young immigrants to share recipes and promote healthy eating habits. Other municipal centers have cooking training programs for young people at risk.

There is not always a clear separation between mere educational workshops and those intended to raise employability, but the agroecological movement emphasizes the need for food-related business incubators: public collective facilities for processing food, together with access to logistic spaces and technical assistance and mentoring for new entrepreneurial projects. Such a facility, Gastrolab Villaverde, was set up in 2018 in one of the most deprived neighborhoods and provides 150 square meters of an industrial kitchen with sanitary registration for marketing.

In the participatory process to design the Madrid Food Strategy, members of the Charter Against Hunger drew attention to cultural and senior centers as spaces with high potential to recast the concept of care and community building around food. Senior centers conform to a solid network in the city and offer meeting points for socialization and enriching senior health. Figure 2c depicts the distribution of those centers that provide food services often the main meal for their users and have cooking facilities. Cultural centers with kitchens are mapped as well. All of them could be fixed for different nutrition education initiatives for the elderly and their families and could also host self-support groups linked to solidarity pantries and facilitating spaces of intergenerational cooperation.

With the aim of finding a dignified answer to hunger, NGO created “Robin Food” restaurants, which combine breakfast, lunch, and dinner for the public, while also providing services to the homeless or people with few resources. Restaurants and catering have shown up as spaces of opportunity for building alternatives. When the pandemic COVID19 placed the city under a severe lockdown, the public catering college in Santa Eugenia (peripheral neighborhood) was transformed into a World Central Kitchen of one reputed master chef and a team of volunteers.

3.2.4 Municipal markets

Municipal markets have the status of establishments of public services and were built to ensure the food supply of urban populations. They host retail stores and share spaces and facilities for common use. They experienced their golden age in the 1950s and 1960s, with lifestyle changes inducing a gradual loss of their importance, as they lag behind supermarkets with which they cannot compete on price. Even so, in some areas, they maintain a relevant function as a space of traditional fresh food trade and of the social life of the neighborhood.

Each market has, besides retail stalls, other service areas and common facilities, such as offices, centralized management of home shipments, lockers, storage, or a parking area. They may also include areas for cultural, educational, sports, health, and social welfare activities. Regulation states that food trade must cover at least 35% of the total area (Municipal Ordinance on Municipal Markets, https://www.sttmadrid.es/images/pdf/SAN/Ordenanza_Mercados_Municipales.pdf). Currently, different municipal agencies conduct public awareness and educational programs in public markets, for schools, and for the public at large.

The agroecological movement Madrid Agroecologico claims that markets should maintain their character of food retail and pursue seizing their potential for logistics related to agroecological farming and small enterprises. Fifty-three percent of the neighborhoods considered (those with the worst combined indicators of income, food insecurity, and obesity) have a municipal market (Figure 2d), that could host not only food culture activities, but also food processing and catering.
enterprises based on solidarity economy and related to agroecological projects and food aid networks.

3.2.5 | Cluster of resources

The resources and initiatives analyzed are not evenly distributed across the city, nor have all the same impact in catalyzing process to develop emancipatory practices to fight food poverty. The Figure 3 summarizes the relative weight assigned to each component, with higher values (30%) assigned to food insecurity and the existence of free food distribution actors, widely considered. Next comes the presence of a mature social capital, in the form of dense associative tissue (18%) and community gardens performing at the neighborhood (8%). Public facilities with kitchen and municipal markets that could host food-related logistics, processing, and joint consumption activities, and therefore boost food co-moming, are assigned the lower weight (7%). The multicriteria assessment results in a landscape gradient:

1. weak substrate, with a few places and associations (mostly not yet working on food communing) to which the transformative process could be anchored;
2. dispersed seeds: there are some local associations or communities already engaged in food justice or social projects, although they are weak and not yet connected;
3. network to germinate: the number of elements and assets is similar to the ones observed in dispersed seeds, but in this case, there are already connections that would ease the process. In general, food-related needs are also higher; and
4. fertile complexity: rich social tissue with trans sectorial connections, know-how, social capital, and experience in the co-design of public policies, in a context of high levels of food insecurity.

Accordingly, the potential strategies of a transformative urban practice range from community building to the promotion of food cooperatives incubators. Over half the neighborhoods analyzed provide a fertile ground to adopt an integral design process in which food may be embedded within urban regeneration plans.

4 | DISCUSSION

4.1 | Urban planning at the service of transformative practices of protection against food poverty

Looking for differences between neighborhoods unveils unequal living conditions, social, and mobility inequalities, barriers to access public services, and the relationship between services (Chiara, 2016). This assertion has once more proven correct in the case of Madrid and results in diverse foodscapes along different neighborhoods. This research shows ongoing practices experimenting with new approaches to food poverty entrenched with food commons principles and collective care (Mayer, 2013). Solidarity and mutual care practices are usually advanced outside official and mainstream urbanism. By doing so, they are certainly (re) politicizing urban policies (Rossini & Bianchi, 2020), but at the same time they are missing the potential of urban planning’s ability and means to design spaces for actionable purposes. If this potential were seized, it could contribute to connecting agroecology to popular classes and forge new relationships between actors, increasing their stability and resilience.

Ultimately, transformative practices must be grounded in what already exists and is being done (Holloway, 2002), and spatial analysis helps to uncover resources and imagine a better future. According to agroecological and right to food movements, this future will be one of social resilience and equity, based on community ties, autonomy, self-reliance, and stability.

People in low-income neighborhoods highlight “the lack of financial resources to purchase healthy foods” as one of the main factors that prevent them from eating healthy (Diez et al., 2017). Accordingly, the demand for food cards is aimed
at giving autonomy to beneficiaries of hunger relief programs and challenge the top-down food banks approach, which helps promote the reputation of food companies as donors (Carbonero et al., 2018), and is conceived as efficient and effective food-donating machinery (González-Torre & Coque, 2016) that reinforces the establishment. The research showed that food cards and guaranteed minimum income are gaining momentum both between right to food advocates and within public policies, although not for the peace of mind of the agroecological movement.

If food poverty is addressed only by decent wages or social protection, then “the dominant paradigm for food production and access remaining unchallenged” (De Schutter et al., 2018). Indeed, in Madrid, since 2017, the agroecological movement has thought about how to connect their activity with collectives at risk of exclusion, avoiding the bias of middle-class regular shopping at the agroecological farmer’s markets. Ideas were formulated in assemblies and groups of discussion, but they were not able to find a way to make them operational (Simon-Rojo, 2019).

Currently, in this envisioned future, ecological resilience does play out based on biodiversity, closed loops of materials, and reduced dependencies, connecting agroecology and food provision with struggles against “dispossession and destruction of livelihoods” (Bush, 2010). Urban planning can help in confronting the above-mentioned qualities to local conditions and define strategies adapted to each specific context, to transpose the social reorganization into the material space in the neighborhood—and, when possible, in the fringe—also along the urban–rural transect. We identified three situations. In the absence of local networks and resources, urbanism may contribute as a mediator and clarify optimal locations for food-related facilities to build community ties (4.1.1). A strong and well-developed social fabric results in higher chances for a successful participatory urban planning that gives room for alternative food networks connected to food insecurity, whereas more focused in self-care () or with a stronger social economy orientation (4.1.2).

4.1.1 Governance and community building

Agroecological and right to food movements are not trying to take over the power, nor fill the gap between the market and the public but strive to have an impact on public policies. In that sense, they are transformative (Calvário & Kallis, 2017). But the proposed “hybrid tri-centric governance system compounded by market rules, public regulations and collective actions” (Viviero Pol, 2013, p. 1) is at best difficult to implement. We found an example in Tetuan, where grassroots organizations forged wide strategic alliances (Table Against Exclusion). It was an innovative form of co-producing public policies between social movements and the institution (Pineda & Olarte, 2017); however, it did not survive the newly elected municipal government.

When the context is mature enough, complex processes can be launched to collectively define comprehensive programs. But most neighborhoods analyzed do not comply as they have, if ever, only weak social and economic networks related to food, and initiating such a process may act as a deterrent. In these cases (Figure 4), it is better to start with incremental projects around food culture with binding time to generate confidence and community ties. They may seem modest goals but are good ones to nurture local networks and pave the way for more complex approaches.

A priority should be given to meeting spaces for knowledge exchange around food and culinary experiences, but especially for strengthening civil society networks. They contribute to co-responsibility and remove “food from the domestic, usually invisible and feminized sphere of social reproduction” (Di Masso et al., 2021, p. 19). Urban and spatial planning provide the means that foster social inspiration and help visualizing desirable scenarios. Planners act as mediators and as designers as well when identifying the optimal location for these food culture centers. Community kitchens should be featured for playing out as the “heart” of community building around food. This is viable in every neighborhood in Madrid; 67% of those targeted in this research already have public kitchens that can serve for the purpose and in the rest, public markets have room and the conditions to host these spaces.

4.1.2 Emancipatory practices

A deep transition needs to “actively dismantle” disempowering and oppressive processes (Holt Giménez & Shattuck, 2011; Tornaghi & Dehaene, 2020). Those neighborhoods with diverse social entities and food-related communities, some of which are challenging the traditional model of social protection for deprived households are targeted for urban strategies to develop emancipatory practices linked to agroecological provision (Figure 5).

The agroecological platform in Madrid explicitly works with this vision and understands that food sovereignty will only be “secured by peasant social movements themselves” (Dunford, 2015, p. 239). Therefore, they reclaim public facilities to handle solidarity economy projects. People at risk of exclusion need gradual steps toward the labor market. Urban planning may help to identify a system of collective spaces and facilities, including logistics and refrigeration, commercial kitchens, ovens, and so on. Multiple projects could make use of them in shifts. That enables them to follow the normative and guarantees traceability, overcoming the usual economic barrier of initial investments in facilities. It implies moving public budgets to low-cost, high-effective inversions (Simon-Rojo, 2019). Madrid Agroecologico is engaged in a
process boosting cooperation between solidarity pantries and agroecological projects, with training and joint workshops for processing vegetable surplus for self-consumption (Figure 6). Their quest for accessing public facilities collides against the administration bureaucracy, on an issue that involves different municipal departments that may be refractory to innovative proposals.

Forty years ago, Hayden advocated for collective and inclusive urban infrastructure and services related to food (Hayden, 1982) seeking to “to shift the relationship between production and social reproduction” (Morrow & Parker, 2020). “Black women living in public housing in Baltimore formed food cooperatives to better meet daily needs and practice autonomy while also organizing for housing, economic, and welfare rights” (Williams, 2004, in Morrow & Parker, 2020). What is innovative in this research is that it provides a framework of operational analysis to realize where this approach has better chances to success. The screening of neighborhoods resources and possibilities brings us to distinguish between community kitchens for collective cooking and those industrial shared kitchens acting as incubators for inclusive cooperatives for food processing and catering, in which “beneficiaries” of food aid programs may enroll (Figure 7).

If local particularisms are overcome, activists and local groups jump in scale and find shared interest stimulated by intellectual optimism (Sheppard, 2006), they could move the Overton window and permeate—and subvert—mainstream public policies. Peasant movements advocate for the common property regimes of land, which are endorsed in the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries, and Forests in the Context of National Food Security (De Schutter et al., 2018). An adapted revival of the commons could be invoked in the case of public facilities (i.e., in municipal markets) as well as in underused buildings that belong to SAREB, the state-owned company in charge of managing and selling the assets transferred from the banks that received state aid.

These productive spaces are feasible in those neighborhoods with a good agroecological and food-related network and can become centers for “connections, links, and alliances around the transformative project of food sovereignty” (Calvário et al., 2020). To better understand the implications of the model of urban planning to boost emancipatory practices linked to food cooperatives incubators (Figure 7), we apply it at a neighborhood scale in the South of Madrid. Figure 8 exemplifies a renewed foodscape in which urban design integrates the principles of the commons and the ethics of care, in San Isidro (Carabanchel) one of the neighborhoods identified as fertile ground to implement emancipatory practices dealing with mutual support and with the development
FIGURE 7  Urban planning for emancipatory practices linked to food cooperatives incubators

FIGURE 8  Defining the urban network for agroecological food transformative practices
of productive projects based on the solidarity economy principles, intentionally adapted to local conditions and needs.

5 CONCLUSION

5.1 When can transformative practices against food poverty be planned?

We need to explore the spatial implications of revisiting the social organization of care that Daly and Lewis (2000) called for. Indeed, urban planning has the capacity to craft the reorganization of spaces, fluxes, functions, and activities to pursue emancipatory models of protection against food insecurity. The contribution of spatial planning in this process unfolds in two levels: firstly, by broadening horizons of possibilities, activating the collective imagination of new ways to connect needs and—often unnoticed—resources, and secondly, by defining how ideas are put into practice.

We present a feasible methodology, based on the systematization of publicly available data, which enables the classification of neighborhoods according to their potential to deploy transformative urban plans related to food. This preliminary classification provides a basis to define desirable futures but has significance only when backed with a deep knowledge of the local relationships, aspirations and needs.

In this sense, urban planning acts as a mediator leading a process to spot resources for potential synergies, as well as conflicting needs and interests. It also works to build shared visions and which spatial reconfiguration enables transformative practices that manage resources in pursuit of the common good and contribute to food sovereignty. The results in Madrid show that 20% of the population affected by food insecurity live in neighborhoods that qualify to deploy complex approaches, enabling the interaction of private, public, and social actors. This means the coexistence and complementarity between market-driven exchange relationships, redistribution public policies, and the food commons reciprocity culture. What is crucial and innovative is integrating the latter into the planning processes.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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