foodclic.eu

D2.1 - REPORT ON FACILITATORS OF AND BARRIERS TO THE DEVELOPMENT AND IMPLEMENTATION OF EVIDENCE-BASED AND INTEGRATED FOOD POLICIES AND PLANNING FRAMEWORKS

UNIVERSITY OF SURREY

01/03/2023

Funded
by the European Union

PROJECT ACRONYM:	FoodCLIC
PROJECT NUMBER:	101060717
WORK PACKAGE NUMBER AND TITLE:	WP2 - Mapping and gapping
LEAD BENEFICIARY:	University of Surrey
RELEVANT TASK:	2.1 - Report on facilitators of and barriers to the development and implementation of evidence-based and integrated food policies and planning frameworks
DISSEMINATION LEVEL:	PU – Public

TABLE OF CONTENTS

LIST OF TABLES

1. BACKGROUND AND OBJECTIVES

Scholars have been analysing urban food policies (UFPs) with different foci and approaches, using a range of documents that can be considered as, or contribute to, policy – such as local ordinances (an authoritative law or decree), codes, executive orders and administrative policies (Zaganjor et al., 2019). A core feature of many UFPs is **systems thinking** (Sonnino, 2019), a concept and practice based on the idea that "complex issues are linked, there are multiple actors in the system and they are connected, and integrated solutions are required" (MacRae and Donahue, 2013: 5). Reconfigured as a **city-region approach**, and since endorsed by global institutions such as the Global Partnership on Sustainable Urban Agriculture and Food Systems (RUAF) and the Food and Agriculture Organisation of the United Nations (FAO)[1], a systemic focus goes beyond the food chain to consider holistic aspects for urban resilience, such as climate change impacts.

This report seeks to capture the full diversity of integrated policies that have emerged within and across urban, peri-urban and rural areas near cities. There is agreement in the literature that an integrated UFP framework could push ahead just and sustainable transformations. Some scholars and policymakers recognise how interlinking factors – such as the food system, urban design, planning, policy and citizen behaviour, among others – merge within an increasingly urbanised world to impact and influence population and planetary health (Barbour et al., 2021; Barling et al., 2002; Candel and Pereira, 2017; Cohen, 2022; Halliday and Barling, 2018; Lang et al., 2009; Sonnino, 2019; Sonnino et al., 2019). A fragmented, siloed approach to UFPs – or lack of policy altogether – often causes inconsistencies, overlaps and gaps, producing negative implications for both the urban food system and other essential needs (Sibbing and Candel, 2021; Slade et al., 2016; Tosun and Lang, 2017). Furthermore, the absence of cross-scale collaboration between cities and other governance levels can hinder potential transformative learnings and approaches from being shared (Doernberg et al., 2019).

Cities have a potential key role in addressing food system challenges where there is a need for integrated policy action at all levels (Hawkes and Halliday, 2017). For example, an integrated UFP could help advance "municipal food security, particularly in identifying patterns of inequitable access, facilitating urban food supply, and embedding food security principles into policies and plans" (Slade et al., 2016: 37). So too could coordinated food action extend to alleviating other areas of urban concern, such as social inclusion, urban-rural linkages or urban nexuses linking water, waste or energy management (Sonnino and Milbourne, 2022). Municipal governments in their placement close to residents, business and community organisations can often lead to new collaborations that shape policies and address multiple concerns. As a consequence, there has been a proliferation of UFPs in recent years, many of which are partially integrated and respond to diverse concerns. Indeed, Candel (2019) identified that approximately one-quarter of signatory cities of the Milan Urban Food Policy Pact (MUFPP) have since developed UFPs. However, how cities adopt new food policy and

[1] See https://www.fao.org/in-action/food-for-cities-programme/toolkit/ introduction/ar/.

planning frameworks, what aspects they consider within them, and how they establish links across them and out into the community are all emerging aspects worthy of investigation.

This report is one of the first outcomes of the FoodCLIC project, a Horizon 2020-funded Innovation Action project that seeks to make **urban food environments** healthy, sustainable and attractive to all through establishing or strengthening integrated UFPs that empower communities. To achieve this goal, this report, which is based on a comprehensive review of literature and policy documents from around the world, seeks to better understand what UFPs currently exist and how they can become better integrated towards a wider transformation of the food system.

1.1 INTRODUCING KEY TERMS AND CONCEPTS

The goal of an **integrated urban food policy** is to overcome siloed ways of working and fragmented knowledge that can often hinder food system transformation[2]. Such policy should be **evidence-based**, building on both state-of-the-art scientific knowledge and experiential knowledge – i.e., from practical experiences. It may also occur within **food-sensitive planning frameworks** – that is, the organisation of the physical, material or spatial elements of an urban area in:

a) a *planning process*, which establishes a clear process and mechanisms to support the interactions of public, private and community sectors during the development and implementation of the plan, including questions around food;
b) a *plan* (a framework, strategic or vision plan) that articulates a clear vision for urban planning, including food priorities, with a long-term horizon intended to articulate the general ideas, goals, and principles; and/or
c) *planning regulations*, which form the legal regime that frames the planning process (i.e., zoning laws and land-use plans).

Real-life interventions are defined as actions that aim to produce changes to food environments in the cities and towns involved, which result in changes throughout the food system (e.g., the distribution channels, sites of production, etc.). These actions may involve either first-time trials of a particular intervention in a city-region or the scaling-out of an on-going initiative at one location to other locations in the city-region or the replication of a successful intervention in other locations.

The real-life interventions that FoodCLIC seeks to implement and scale will allow city-regions to fill gaps in their knowledge and build an evidence-base for transformative food policy-making and planning. This project builds on the place-based **CLIC framework** (see Sonnino and Milbourne, 2022), which seeks to achieve food system transformation by considering food policy outcomes with regards to: **co-benefits** between economic, social and environmental objectives; **linkages** between urban, peri-urban and rural areas and between the land and the sea; **inclusion** of citizens (including in particular marginalised and vulnerable groups) in the design, implementation and monitoring of

[2] While urban food *polices* are the focus of this report, in practice food 'policies' do not often meet rigid definitions. Instead, 'policy' has been more widely interpreted to capture examples of *formalised urban food good practices* such as local and intermunicipal food planning (including masterplans), programs and initiatives, and participation in signatory programs.

policies; and **connectivity** between the food system and other sectors and policies, such as waste, water and the built environment. This framework puts forward that sustainable food system transformation can be achieved through implementing innovations that can deliver, as far as possible, all four outcomes (Mattioni et al., 2021: 1).

This report is based on a comprehensive review of both scientific and "grey" literature that identifies factors that enable or hamper the development and implementation of integrated UFPs through using the four properties of the **CLIC framework**. The report recognises a distinction between 'integrated' UFPs and 'specific' food policies: the former incorporate all four pillars of the CLIC framework, while the latter represent food policies that may have only a few of the CLIC features. In all cases, and in accordance with the key objectives of the FoodCLIC project, special attention has been devoted to the impacts of UFPs on **consumer behaviour, the food environment and food supply chains**.

1.2 THE REPORT STRUCTURE

The report is structured around four main sections. Following the introduction to the background and aims of the literature review (Section 1), Section 2 explains the methodology of the review. Section 3 analyses results from the review with respect to the co-benefits, linkages, inclusion and connectivity dimensions of UFPs. Section 4 identifies what factors facilitate or hinder the development and implementation of evidence-based integrated food policies and planning frameworks. Finally, Section 5 provides options for municipal decision makers on how to best design, implement, monitor and evaluate integrated UFPs and planning frameworks and contribute to real-life interventions in city-regions.

1.3 HOW TO USE THIS REPORT

This document will inform the activities of the Living Labs in the project's eight city-regions – Aarhus (Denmark), Amsterdam (Netherlands), Barcelona (Spain), Berlin (Germany), Brașov (Romania), Budapest (Hungary), Lisbon (Portugal) and Lucca (Italy) – towards establishing or strengthening their UFPs. Through this review and analysis, this report seeks to inform and inspire pilot actions and experimentation by the partner cities:

- by introducing key concepts and ideas related to the notion of food policy integration;
- by providing an overview of the diversity of UFPs that currently exist;
- by identifying factors and conditions that support or, conversely, hinder the development of integrated UFPs; and
- by providing recommendations for both municipalities and the Living Lab teams on how to ensure holistic approaches for UFPs.

2. METHODOLOGY

2.1 THE REVIEW PROCESS

This report is based on material from articles published in peer-reviewed journals, policy reports and other documents such as project reports, case studies, handbooks and information briefs that relate to UFP produced by public sector agencies (e.g., municipal and other levels of council, international agencies like the United Nations (UN) and European Commission) as well as local and international not-for-profit organisations. For the scientific literature, a scoping search was first performed (using Web of Science and Scopus) on key terms for articles published to date. This initial search produced a wide diversity of data, ranging from specific food policy examples through to large datasets of UFPs. The former contributed to the selection of the food policy examples in Table 2, the text boxes and analyses for this research, while the latter contributed a global overview of UFPs.

2.2 THE GUIDELINES

Two guidelines were produced by researchers at the University of Surrey (see deliverable D1.1 of the FoodCLIC project). The first set of guidelines were produced by identifying and defining key categories and search terms, whilst establishing a review process that can be undertaken consistently by other researchers for future reviews. The search was performed using words that relate to specific aspects of food policies (food + intervention, practice, innovation, policy, initiative, project), urban contexts (city, urban, municipal) and sustainability (healthy diet, sustainable diet, climate change, empower, environment, inclusion), using the following structure [food policies] + [urban context] + [sustainability]. Web of Science and Scopus were utilised as search engines, with a timeline of 2015-2023. This initial step retrieved a large number of documents (291 outputs), which were scanned through a reading of abstracts and keywords. In the end, 44 articles were selected, reviewed and analysed, paying special attention to aspects related to the implementation of a food policy or planning framework in an urban context (see Appendix 2 for selection criteria). This review of scientific papers was complemented with the analysis of relevant grey literature that was referred to in the academic papers. Later in the process, key documents (project reports, case studies, handbooks, information briefs, etc.) produced by the UN, by international and local NGOs/institutes, or concerning ongoing or closed EU-funded projects that focused on food were also collected.

All selected papers and documents were analysed using the CLIC framework (co-benefits, linkages, inclusion and connectivity), with a special attention for the impact on consumer behaviour, the food environment and the food supply chain – as required in the project's call text. A codebook was designed based on these categories and deductive coding was performed. It is important to note that documents were not selected on the basis of the CLIC framework; consequently, most outputs reviewed only partially engage with the dimensions of the CLIC. Nevertheless, they were considered

to provide an excellent starting point for reflecting on existing facilitators, barriers and limitations. Hence, this report does not reject examples that fail to deliver all the objectives of the CLIC; rather, it maps actual food policies and acknowledges gaps to highlight opportunities for future research and policy.

2.3 THE FINAL SELECTION OF URBAN FOOD POLICY EXAMPLES

Thirty UFP examples were shortlisted based on criteria that were relevant to the core objectives of this project, such as integration along the CLIC framework, geographic diversity (Global North/South), the maturity of the food policy and other aspects of diversity[3]. The final selection of examples is listed in table 2.

The food policy examples range from less than five years old (i.e., 2018) to more than 20 (i.e., early 2000s)[4]. This selection indicates the bell curve of change where a few well-known leaders, such as Belo Horizonte's Integrated Urban Food Policy (established in 1993) and the Programa de Agricultura Urbana in Rosario (established c.2003; see text boxes 7 and 9), represent models that have emerged since the 1990s. Interestingly, three out of four of the initiatives that were older than 20 years display all four of the CLIC properties, suggesting that integration between aspects maybe easier to develop over time.

These examples are followed by the bulk of UFPs occurring between 5 to 15 years ago, coinciding with international efforts, such as the MUFPP (signed in 2015) and the C40 Good Food Cities Declaration (released in 2019). This transition marks a step away from food being traditionally bound to the corporatist regulatory regime at a European and national level to becoming influenced by civil society actors and everyday activists, especially in the case of urban agriculture and alternative food networks (Doernberg et al. 2019; Edwards 2023). This chronology of UFPs indicates shifts in societal concerns, re-conceptualisations of governance and the potential of the food system and cities overall to become recognised drivers for sustainable futures.

We recognise that not all the diversity of food policy examples was captured in this selection. Gaps from the selection in this report are used to highlight possible alternative applications that may be of interest for the Living Labs and others. Table 1 notes some exceptions for further consideration.

[3] The robustness of these examples against these criteria were reviewed by project partner CARIPLO.
[4] It was also noted that trajectories from the selected policies are often multi-phased where policy formulation is a latter step.

Table 1 Identified gaps in the review on urban food policies (UFPs)

CATEGORY	MISSING ASPECTS AND ASPECTS FOR FUTURE RESEARCH
CLIC COMBINATIONS	Linkages-Inclusion-Connectivity; Linkages-Inclusion; Linkages-Connectivity; Inclusion-Connectivity.
FOOD SYSTEM	Caterers; café and restaurants; production workers; processers; productive animals in the city – i.e., urban beekeeping; digital food
VULNERABLE AND MARGINALISED GROUPS	The elderly; students; patients; unhoused people, refugees; people affected by the criminal justice system; people with substance use disorder; future generations.
LOCATIONS	The Middle East is missing; also to note that the selected examples recognise place with respect to being in the Global North (23) or South (11), and in their distribution across continents: North America (7), Northern Europe (11), Russia (1), Australia (1), Central and South America (7), Africa (4) and Eastern Europe (2) (see appendix 3). This selection reveals clusters of UFPs – e.g., New York City, Malmo and Medellín-- that could benefit from research to explore potential linkages across policy, between cities – either within the same country or between food policy types (such as procurement).
CITY SIZE	While scale was acknowledged in table 2, associated aspects such as population diversity, urban density and economies of scale can factor into UFP type, target audience, priorities and administration capacity warranting further research (see Candel 2019; Zaganjor et al. 2019).
LEADERSHIP OF UFPS	From the selected examples, the majority (20) are led by municipalities, six are led by civil society coalitions, one by higher levels of governance and five from other sources. Further research into actor's capacity, timing, framing, direction and delivery of interventions along the policy trajectory to drive and sustain change are warranted.
EMERGING THEMES AND/OR ADAPTATIONS TO URBANISATION ISSUES	For example, emerging UFPs may wish to embrace the virtual world to design new approaches and interventions that respond to both physical and virtual food environments.

Table 2 Final selection of urban food policy examples

	URBAN FOOD POLICY	GLOBAL NORTH/ SOUTH*	CITIES OR TOWNS**	MAIN FOCUS	DRIVER / INITIATOR	MATURITY (IN 5-YEAR BLOCKS)	HOW MANY CLICS?	WHICH CLICS?
1.	Integrated Urban Food Policy, Belo Horizonte, Brazil	South	City	Production, Distribution, Consumption	Municipal-led	>20	4	CLI**C****
2.	Programa de Agricultura Urbana, Rosario, Argentina	South	City	Production	Civil society-led	>20	4	CLI**C**
3.	AGRUPAR (Participatory Urban Agriculture), Quito, Ecuador	South	City	Urban agriculture	Municipal-led	>20	4	CLI**C**
4.	Healthy Nutrition for Children Program, Kazan, Russia	North	City	Distribution	Municipal-led	>15	4	CLI**C**
5.	Alianza por el Buen Vivir, Medellin, Colombia	South	City	Production and distribution	Municipal-led	>10	4	CLI**C**
6.	The Greenways, Bobo-Dioulasso, Burkina Faso	South	City	Production (urban ag., biodiversity)	Municipal + external stakeholders	>10	4	CLI**C**
7.	Farm-to-School/Pre-school Programs, Springfield, USA	North	Town	Distribution (procurement)	National-level governance	>10	4	CLI**C**
8.	Marca de la Huerta, Zaragoza, Spain	North	City	Distribution (labelling)	Municipal-led	>10	4	CLI**C**
9.	City Farm Program, Bangkok, Thailand	South	City	Urban agriculture	Civil society-led	>10	4	CLI**C**
10.	Golden Horseshoe Food and Farming Plan, Toronto, Canada	North	City	Land access for farming	Across municipalities	>10	4	CLI**C**

11.	Policy for Sustainable Development and Food, Malmo, Sweden	North	Town	Consumption (meat)	Municipal-led	>5	4	CLI**C**
12.	Mezitli Female Producers' Market, Turkey	South	Town	Production and Distribution	Civil society-led, municipal-supported	>5	4	CLI**C**
13.	Urban Agriculture Policy, Cape Town, South Africa	South	City	Production	Municipal-led	>15	4	CLI**C**
14.	Incredible Edible Todmorden, UK	North	City	Production, distribution, consumption, waste	Grassroots	>15	4	CLI**C**
15.	Zero Waste program, San Francisco, USA	North	City	Waste	Municipal-led	>20	3	CLI
16.	Amsterdam Approach to Healthy Weight, the Netherlands	North	City	Consumption (healthy diet)	Municipal led (champion mayor)	>10	3	CI**C**
17.	Urban Agriculture Ordinance, Detroit, USA	North	City	Production (urban agriculture)	Municipal-led	>10	3	CI**C**
18.	Healthy Diné Nation Act, USA	North	Town	Distribution and consumption	Civil society-led	>10	3	CI**C**
19.	Central Market, Vaslui, Romania	North	Town	Distribution	Municipal-led	>10	3	CL**C**
20.	Public School Food Procurement Policy Implementation, Avignon, France	North	Town	Consumption	Municipal-led	>5	3	CL**C**
21.	Waste management, Malmo, Sweden	North	Town	Waste	Municipal-led	>5	3	CL**C**
22.	Plan Alimentario de la Red Municipal de Escuelas Infantiles, Madrid, Spain	North	City	Distribution (public procurement)	Municipal-led	>5	3	CL**C**
23.	Produce Plus, Washington D.C., USA	North	City	Distribution (access)	Municipal-led	>5	3	CI**C**

24.	Garden City Initiative, Taipei, Taiwan	North	City	Urban agriculture	Municipal-led	>5	3	CI**C**
25.	RePoPP—Progetto Valorizzazione Organico Porta Palazzo, Turin, Italy	North	City	Waste and distribution	Research-led	>5	3	CI**C**
26.	Addis Ababa School Feeding Program, Ethiopia	South	City	Distribution	Municipal-led	<5	3	CI**C**
27.	Horsley Park Urban Agriculture Precinct, Sydney, Australia	North	City	Urban agriculture	Municipal-led	>10	2	CL
28.	Green Carts, New York City, USA	North	City	Distribution, consumption	Municipal-led	>10	2	C**C**
29.	Picasso Food Forest, Parma, Italy	North	Town	Production (biodiversity)	Civil society-led	>10	2	CI
30.	Microgardens Programme, Dakar, Senegal	South	City	Production	Municipal-led	>5	2	CI

* The terms 'global North' and 'global South' are used here to indicate not rigid geographical demarcations, but rather to emphasise inequalities -- based on the fact that most of the low-income countries lie south of latitude 30° North (see https://www.rgs.org/CMSPages/GetFile.aspx?nodeguid=9c1ce781-9117-4741-af0a-a6a8b75f32b4&lang=en-GB).

The degree of urbanisation identifies two types of settlements: **cities, which have a population of at least 50,000 inhabitants in contiguous dense grid cells (>1,500 inhabitants per km^2), and, **towns** (and semi-dense areas), which have a population of at least 5,000 inhabitants in contiguous grid cells with a density of at least 300 inhabitants per km^2 (see https://blogs.worldbank.org/sustainablecities/how-do-we-define-cities-towns-and-rural-areas).

*** Bold **C**: Connectivity

3. URBAN FOOD POLICIES AND PLANNING FRAMEWORKS: AN ANALYSIS

The diversity of UFP examples enables us to capture a wide range of facilitators[5] and barriers that occur at different scales, specialise in various themes, involve different actors, take place in a range of locations within and across the city-region and have different goals towards different degrees of transformation. This section discusses barriers as well as key conditions emerging from the literature review that can support the development of UFPs. These conditions are further elaborated upon by examples from the selected case studies in Table 2. From this section, recommendations and options are distilled for municipalities and the Living Labs in sections 5 and 6.

3.1 UNDERSTANDING THE BARRIERS TO THE FORMULATION OF EVIDENCE-BASED AND INTEGRATED URBAN FOOD POLICIES

The **fractured nature of food systems** across multiple horizontal (i.e., sectoral and territorial) and vertical (i.e., multi-level) governance axes is considered as the most fundamental barrier to the development and implementation of evidence-based and integrated urban food policies. Most literature focuses on issues and bottlenecks that characterise the horizontal governance context, which include siloed ways of working as well as differential capacities (in terms of planning, resources and Mayoral influence) of city governments to act (Coulson and Sonnino, 2019).

Siloed approaches are quite common in cities, which tend to be administered through obsolete governance structures that have distinct functional programmes (e.g., health, education, sanitation, etc.). As Cohen and Ilieva (2021) point out, this creates major problems for "boundary spanning policy domains" such as food. Indeed, different municipal departments can differ considerably in their compliance and enforcement of a policy (Atkei et al., 2017). In Taipei, for example, the Garden City urban agriculture initiative introduced in 2015 suffered from a division of labour amongst different urban departments, which hindered coordination (Hou, 2018). The lack of centralised coordination can create problems particularly during the implementation stage of a food policy. In the case of Taipei, conflicting roles between different NGOs involved with the Garden City initiative negatively affected the implementation and monitoring of the policy (Hou, 2018).

As several studies show, **without coordination efforts and mechanisms is far more difficult for**

[5] To note that 'facilitators' here refers to both people (as participants) and factors (e.g., events, regulations, interventions) that influence policy.

municipalities to maintain citizen engagement and political momentum around a food policy (Arcuri et al., 2022). This is especially a problem in cities where local administrations face some resistance to their initiatives – connected with, for example, citizens' perceptions of the negative impacts of food growing spaces in terms of visual quality. Such perceptions have constrained the development of urban agriculture initiatives in Sydney, as documented by Corkey et al. (2021), as well as of the Parma's food forest, as reported by Riolo (2019). The literature also shows that at times local resistance emerges from fear of unfair competition by the private sector, which, for example, extensively opposed the Green Carts programme introduced in New York City (Fuchs et al., 2014).

Lack of competencies at the municipal level is another barrier to the development of integrated and evidence-based UFPs. In their analysis of London's food system, Parsons et al. (2021) stress how the city managed to leverage on the Mayor's power over transport to introduce an advertising ban, but progress in policy areas such as school food, for example, was limited by the lack of power and agency of the city. Similarly, Vienna had to phase out its ecological procurement programme due to a perceived lack of a political mandate in this policy area (City of Vienna, 2023). Lack of competencies is especially a problem in American cities. In New York City, for example, the decision to introduce a portion size cap to sugary drinks was overturned by a federal court (Johnson et al., 2020; Sisnowski et al., 2016) as a result of fierce opposition by powerful federal lobbies.

Even when endowed with the capacity to act, municipal governments at times have to confront problems created by the **scarcity of resources**. These include in particular funding but also space: market space for stalls, as mentioned by Fassio and Minotti (2019) in their analysis of Turin's circular food economy; availability of land, which was an issue for the development of urban agriculture in Taipei (Hou, 2018); and refrigeration, which constrained New York City's efforts to increase the stock and promotion of healthy foods in underserved neighbourhood (Dannefer et al., 2012).

These examples demonstrate that there are clear limits to what municipal governments can achieve without support from higher levels of governance – most notably, their national governments. The literature is increasingly pointing to the **inertia of national levels of governance** as a key barrier to the development of integrated UFPs (Parsons et al., 2021). All too often municipal initiatives have to develop within a context that fails to support them through large-scale investment (in capacity-building and infrastructural development, amongst others), legislation (on sustainable public food procurement, for example), regulation (of the urban food environment) and the creation of an adequate evidence-base (i.e., the designing and funding of large-scale research programmes that actively involve citizens in the generation of knowledge about the urban food system) (Sonnino, 2023).

3.2 POLITICAL COMMITMENT, LOCAL RESOURCES, REPRESENTATION, CROSS-DEPARTMENTAL AND MULTI-LEVEL BUY-IN AS FACILITATORS OF INTEGRATED AND EVIDENCE-BASED UFPS

There is **no silver bullet solution** to the problems and barriers identified above. As the literature highlights, a wide range of context-dependent measures and strategies can be deployed to circumvent the barriers created by a fractured governance context, lack of power or the scarcity of resources (see Table 3). In all, these measures and strategies can be grouped into five main intervention contexts: a) the creation of **political commitment** to food policy at the municipal level; b) the adoption of an **endogenous approach** that builds on local resources; c) an **active and meaningful participation** in the policy-making process by all stakeholders (with a special attention for the specific contribution that planners, researchers and the industry can offer during the designing and implementation stages); d) **horizontal governance integration** around food; and e) an active effort to embed the food policy within **its multi-level governance** context.

Table 3 Identified barriers and potential facilitators to circumvent them

IDENTIFIED BARRIERS	POTENTIAL FACILITATORS				
	Political commitment	Endogenous approach	Active and meaningful participation	Horizontal governance integration	Multi-level governance
SILOED APPROACHES	x	x	x	x	
LACK OF COORDINATION	x		x	x	
LACK OF COMPETENCIES	x			x	x
SCARCITY OF RESOURCES	x	x			x
INERTIA OF NATIONAL LEVELS OF GOVERNANCE					x

Committed municipalities

An initial point that needs to be taken into account in the analysis of the context in which UFPs sit is their **'institutional home'** – i.e., the place within which the food policy resides. Municipal councils are often particularly good as institutional homes, since, in theory, they have the necessary power, responsibility and processes to establish and govern new policies (Halliday and Barling, 2018; Hawkes and Halliday, 2017). Pre-existing relationships between government and stakeholders can further increase a policy's legitimacy and support (de Zeeuw and Dubbeling, 2015). Furthermore, municipalities often have the tools and resources for overseeing a policy's accountability, transparency and efficiency. However, as Hawkes and Halliday (2017) comment, **there is not a 'one-size-fits-all' governance context** for UFPs. Indeed, some recognise that institutionalisation can be inhibiting, since "too much municipal control and excessive project implementation limit a community's own leadership and opportunity to develop a project based on their own defined goals" (Lake, 2019: 6; also see Sibbing and Candel, 2021). For example, food policy councils may at times be better positioned if they remain largely autonomous from government control, and, hence, less affected by political parties, electoral cycles and a reliance on government funding schemes (de Zeeuw and Dubbeling, 2015). Similar projects, such as the EU EdiCitNet that sought to align community food projects with local government towards policy implementation, found that rigid, externally-prescribed models without adequate reciprocal participation can harm the motivation, trust and hence participation of cities (Edwards et al., under review), leading to "fragmentation, negative competition, duplication of efforts as well as empire building" (Mwaura Muiru, 2010: 198).

In some cases, cities have progressively adapted their governance to the UFP by establishing **food policy officers** to manage interconnected food issues (Cohen, 2022; Berglund et al., 2021). For example, the Mezitli municipality (text box 1) supplied the physical space for women to meet, removed financial barriers by not charging any fees and provided support with experienced staff to help them engage with the government policies for planning, monitoring the market's price and establishing a common vision and shared goals and processes (Lake, 2019).

However, not all local governments have consistent legislative and planning scheme priorities and regulatory tools (Slade et al., 2016). For example, in their study of UPF in ten German cities Doernberg et al. (2019: 88) found that "capacities for policy implementation remain limited due to missing financial and staffing resources". Likewise, the Diné communities participating in the Healthy Diné Nation Act (HDNA, text box 5) experienced a lack of equipment, marketing materials and space for vegetable coolers, fruit and water racks (Sean et al., 2022).

> **Institutional home:** "the space within which the governance body or policy resides, be it a city government department or agency, a civil society organization, or a neutral space outside of all structures" (Hawkes and Halliday, 2017: 80).

Against the ideal of a static integrated policy, Candel and Biesbroek (2016) propose a **multifaceted, dynamic process that consists of multiple dimensions**, involving a policy frame, subsystems, policy goals and instruments. The policy frame responds to "how a particular problem is perceived within a given governance system" (Candel and

Biesbroek, 2016: 218), where "the degree of integration ranges from a narrow definition of the problem, which is considered to fall within the remit of a specific subsystem (lowest), to the recognition of the cross-cutting nature of the problem and the shared understanding of the need to adopt a holistic governance approach (highest)" (Arcuri et al., 2022: 288). The subsystem – which involves various actors, places, rules and processes – rises in prominence in response to specific cross-cutting issues, influencing perception of the problem across the system. **Shared policy goals and instruments** also positively enhance policy integration (Arcuri et al., 2022).

Text box 1 Mezitli Female Producers' Market, Turkey

Type of initiative: Local policy with a focus on gender equality

Aim: To reduce gender-based inequalities; to increase employment opportunities for women; to promote social and cultural exchange between women; to strengthen local female producers from all social and cultural backgrounds and economic levels; to help local women to organise themselves; to encourage women to actively participate in society and, thereby, increase their self-confidence.

Context and history: Mezitli is a rural municipality located along the southern coast of Turkey. Population growth, resulting primarily from immigration from neighbouring countries such as Syria, has created a need for higher socio-cultural inclusivity. Women remain one of the most vulnerable groups in Turkey, often highly dependent on their families and male relatives. Economic opportunities represent a pathway for maintaining peace and asserting independence.

Description: In Turkey, it is customary for women to produce fresh fruit, vegetables, pastry and handmade products in their homes, yet it is often their husbands or fathers who sell the goods. To create the Female Producers' Market, a new regulation was voted upon by the municipal assembly to re-organise pre-existing legislation. Emerging from solidarity between women, the goal of inclusion at the Market was extended to women from all religions and heritages, including Syrian Asylum seekers (Lake 2019)[6].

Integration along the CLIC framework:

Co-benefits: Gender empowerment; economic independence and growth.

Linkages: Direct sales from rural parts of the city region to the Market.

Inclusion: Gender rights, economic inclusion of women, refugees and migrants.

Connectivity: Between agriculture, economic and social welfare sectors.

The value of existing strengths and resources

Many UFPs overlook pre-existing resources, skills and experience within their communities. Rather than bringing in new staff and processes to meet food transformation goals, which can be costly, time-consuming and prompt a lack of confidence in local abilities, an **endogenous development**

[6] https://www.milanurbanfoodpolicypact.org/mezitli-mpa19/.

approach is encouraged that favours **recognising and developing local resources**. This perspective seeks to revalue 'wasted' people, produce and places within the city-region (Lever and Sonnino, 2022). Rather than viewing **vulnerable and marginalised peoples** or **neglected urban areas** as a problem, an endogenous perspective sees them **as a potential strength** (van der Ploeg et al., 2008). By integrating numerous specific policies that involve diverse communities and places, an integrated UFP can reach a wide audience in numerous ways. For instance, the Green Carts Program in New York City includes "hosting workshops on how to start a Green Cart business, providing storage space for carts, and promoting Green Cart purchasing" (Leggat et al., 2012: 938). Skill building also enhanced existing traditional and local agricultural knowledge of residents in Quito, Ecuador, in the Participatory Urban Agriculture Program, 'AGRUPAR' (see text box 2). This program provided continuous capacity building through training and knowledge-exchange activities on sustainable urban agriculture practices and innovations, including animal husbandry and food processing (Rodríguez et al., 2022).

Text box 2 AGRUPAR (Participatory Urban Agriculture), Quito, Ecuador

Type of initiative: Local urban agriculture program

Aim: To improve food security and create jobs; to strength interlinkages with surrounding rural areas as hubs for food production, food markets and the location of natural resources; and to promote social inclusion, diverse diets and environmental management (Hawkes and Halliday, 2017).

Context and history: In 2000, the Municipality of the Metropolitan District of Quito (MDMQ) began implementing urban orchards across the city. In 2002, the Participatory Urban Agriculture Project (AGRUPAR) was created to produce urban and peri-urban agricultural products from the metropolitan area. Since 2016, with the support of NGOS such as the RUAF Foundation and RIKOLTO, the MDMQ began promoting a public agri-food policy with urban agriculture as a central pillar. This document was supported by many other initiatives: the Agri-Food Pact of Quito (2017) to provide healthy food for the entire population (Santandreu et al., 2019); and the Food Action Plan that proposed policies at different scales along the value chain. This urban agriculture focus was extended to consider other urban priorities, such as impacts of climate change. The next document, the Quito Agrifood System Resilience Strategy, proposes food hubs at a metropolitan scale to help formulate public policies at different governmental levels to manage the whole system as a distributed network (Jácome-Pólit et al., 2019). An urban food resilience approach has since been included in the Climate Action Plan 2050, the Resilience Strategy and the Agri-Food Strategy of Quito. In 2021 the Land Use and Development Plan for the MDMQ placed food security at the foundation of an inclusive and ecological development of the city and strategic guidelines to out-scale AGRUPAR's operation were included (Rodríguez et al., 2022).

Description: The project provides seeds and training in urban and peri-urban organic agriculture. Agroecological markets for produce from rural producers outside the city are also established. A food hub has a level of autonomy but, at the same time, it can jointly work with other food hubs,

creating an increasingly self-sufficient system. Between 2002 and 2015, the program created 2,700 gardens, trained 19,200 people and produced 105 different food products (Forster et al., 2015; Baker and de Zeeuw, 2015). Almost half of the produce generated by farmers in the AGRUPAR programme is commercialised, mainly through biological farmers markets.

Integration along the CLIC framework:

Co-benefits: Economic, social (gender empowerment, food literacy), dietary.
Linkages: Distribution of local produce to markets.
Inclusion: Informal sector.
Connectivity: Agriculture, new businesses, improved natural resources.

Inclusive, diverse, just and relevant representation

A core feature of UFPs is **participatory governance,** which aims "to facilitate coordination between different actors and the integration of different sectors" (Sonnino 2019: 4). For example, Chicago established a non-profit regional food body that sought to represent "a variety of members (economic, environmental, transport, agricultural, public health, etc.) to analyse and support food policy issues from a comprehensive perspective and coordinate federal grants and loan programs" (Chicago Metropolitan Area for Planning, 2010: 156). Similarly, Los Angeles' food strategy called for the establishment of a regional food policy council (Los Angeles Food Policy Task Force, 2010: 28). Different forms of engagement in UFP formulation and implementation in Cordoba, Ghent and Donostia-San Sebastián included recognition of local stakeholders in the food policy publications and practices, improved access to resources and empowerment through interaction and development opportunities (Smaal et al., 2021).

Many believe that participation is important **from the start to develop co-ownership and food democracy**, when it is also imperative that the stakeholders work together to define and articulate integrated policy problems, goals and means (Baldy et al., 2022). This is indeed the approach behind Vitoria-Gasteiz's urban food strategy, which, for several years, was co-produced by civil society organisations and private sector actors – with the city government joining in at a later stage (Sonnino et al., 2019). In Mezitli, for example, successful outcomes emerged from women being engaged with and made full stakeholders early on in the design process (Lake, 2019).

In other cases, different stakeholders are brought in at different stages of the policy cycle. For instance, **food policy entrepreneurs** were indispensable during the implementation phase of the UPF for the Plain of Lucca, when they invested their time, expertise and reputation to complement the policy process (Giambartolomei et al., 2021). **Planners** can address numerous UFP aspects, including enhancing equitable access to urban space, reducing infrastructural barriers to food access, such as transport options in food deserts; implementing regulatory barriers to urban agriculture activities through zoning; and embedding food security and sovereignty principles within land use policies (Morgan, 2009; Pothukuchi and Kaufman, 1999; Slade et al., 2016). While such

interventions can greatly improve the quality of local areas, green and food gentrification can reduce food affordability and access, perpetuating social, economic and environmental inequalities (Anguelovski et al., 2022). Steps for preventing possible gentrification include providing "long-term tenure for affordable food retailers through rent controls and subsidised retail sites; supporting zoning that promotes retail diversity that includes small food businesses; engaging community development corporations and developers in allocating space for community food needs, such as groceries and urban farms; and supporting retail food cooperatives and non-profit supermarkets that provide affordable food (28)" (Cohen, 2022: 428).

The role of **industry** is often overlooked in the urban food movement due to much of its origins being based within civil society mobilization. However, industry represents an essential driving factor for food system transformation. For example, industry representatives can provide access to private, commercial or retail spaces for large-scale change, such as supporting sustainable procurement policies, or can contribute essential resources for 'closing' urban food systems, such as retailers and companies involved in waste management practices. A successful example in this respect is provided by Mexico City's "Comedores Comunitarios" (community canteens). Established in 2009 with the aim of feeding the urban poor, Mexico City's "community canteens" (106 in 2016, serving more than 8,000 meals per day in the most deprived areas of the city) are governed through a partnership that involves the city government (which provides technical, administrative and financial support, as well as non-perishable food donations from the central wholesale market and water donations from the central municipal system), local citizens (who run the canteens) and the private sector, which collaborates through donations and maintenance services. Of course, involvement with industry must caution against perpetuating conditions for advancing the conventional food sector (Mattioni et al., 2022). Regarding this aspect, Horst (2017) suggests municipal governments should embed UFP with food justice values by applying five intervention points for reflection: inequity/trauma, land, labour, exchange and democratic process.

Alternatively, the fostering of food-based **entrepreneurs** can also be an important force for driving positive change (Moon, 2018). Examples include online social dining practices (Davies et al., 2020) and the incorporation of urban agriculture within built form (Specht et al., 2013) – both of which require integration within urban policy and planning frameworks.

Researchers can provide an important link between theory and practice, where they can source and share key learnings from external and international UFP examples to benefit local applications. Through action-based projects, researchers can also capture the tacit knowledge and lived experiences of ordinary citizens, who often enact "everyday forms of resistance" to feed themselves at difficult times or in difficult contexts (Sonnino and Coulson, 2021). Knowledge of these initiatives and the history of similar approaches within the local area provide baseline data that enhance the evidence-base, helping to design policies that are relevant, effective and achievable (Hawkes and Halliday, 2017). Researchers can also distil key messages and translate knowledge between government and local stakeholders and from across the food system (Barbour et al., 2021). In doing

so, they can fill important knowledge gaps towards building integrated UFPs, being able to identify innovative approaches, utilise methods to combine data types and analyse information in systematic and consistent ways, thereby producing knowledge for local decision-making (Santini et al., 2021). So too can **media actors** play an important role in highlighting and translating key messages to a wider audience to galvanise support.

***How* local stakeholders are involved is also essential** for instigating and sustaining engaged, democratically 'owned' UFPs. Sonnino and Beynon (2015), amongst others, recognise the crucial role of reciprocity to build trust and understandings across different types of stakeholders. In this respect, approaches such as **co-creation, co-design, participatory design, multi-level governance and public deliberation** have begun to form the basis for many emerging UFPs around the world (Frantzeskaki and Kabisch 2016; Mahmoud et al., 2021). Selected examples from the table include Open Agri-New Skills for new Jobs in Peri-urban Agriculture (Milan, Italy), AGRUPAR (Participatory Urban Agriculture, Quito, Ecuador) and the Healthy Diné Nation Act (USA) (text box 3).Baldy et al. (2021: 607) note how moderators and participants can either be drawn together (for example, "if the moderator gives participants the opportunity to articulate their ideas") or pulled apart ("if the participants reject the moderator"). As they argue, policymakers would benefit from becoming more aware of the intricacies of their role and full implications of the practice (Baldy et al., 2022).

Language and perspectives embedded within policy and planning documents should also aim to be people-centred while upholding the prerogative to "de-colonize, de-westernize and de-masculinize" their approaches (Lake, 2019: 5). For example, Smaal et al. (2021: 710) in their research of UFPs note how they "found that justice-oriented food concepts, which are so extensively debated in social movements and academic literature, are actually rarely being deployed by urban governments". An example of an initiative that engages with language is the Mezitli Women Producers Market, which recommends that "[p]lanners […] integrate cultural norms and traditions into their planning strategy by embracing the qualities of women that make them pillars of society, including networks of support and tendencies to nurture others" (ibid.). Similarly, the Diné expressed how, when writing their bill, they "removed the two words "junk food" and how "[h]ealth promotion specialists reminded [them] consistently that there is "no such thing as junk food, there is junk and there is food" (Rblauvelt 2016: n.d.). So, after much research and debate, they settled on minimal-to-no nutritional value food items.

Text box 3 Healthy Diné Nation Act, Navajo Nation, USA

Type of good practice: A local tax on junk food

Aim: To curb high obesity and diabetes rates; to generate income for health and education programmes and farming initiatives.

Context and history: The Navajo Nation covers portions of Arizona, New Mexico, Utah and Colorado and consists of more than 330,000 enrolled tribal members. The lifestyle of the Navajo (Diné) people historically was characterised by physical activity and a diet based on healthy foods from farming. However, Western influences and unequal access to basic public services like healthcare and safe water resulted in increasingly poorer diets and less exercise, leading to obesity, diabetes and other health complications among children, youth, families, adults and elders – research shows that more than 75% of households experience food insecurity (Pardilla et al., 2014; Yazzie et al., 2022). Only 13 grocery stores outlets exist in the territory, with residents having to travel up to 120 miles round trip for groceries (Sean et al., 2022). In 2014, the Navajo Nation passed the Healthy Diné Nation Act (HDNA) to overcome poor access to healthy food and support more active lifestyles.

Description: With involvement from the Diné Community Advocacy Alliance, Navajo Nation leaders and the Navajo Tax Commission, the policy centres on increasing sales tax (a 2% tax) on "minimal-to-no-nutritional-value" foods and waiving the 5% sales tax on healthy foods. Aligned with tribal government structures, the revenue was directly allocated to 110 small local government chapters for self-determined wellness projects in areas of the built recreational environment, agriculture and fitness/nutrition education, often emphasising cultural and intergenerational projects. Funded projects include walking trails, exercise equipment, food for events, playgrounds and greenhouses (Yazzie et al., 2022).

Integration along the CLIC framework:

Co-benefits: Indigenous people's health; cultural empowerment; economic independence.
Inclusion: Indigenous rights; economic inclusion.
Connectivity: Between agriculture, economic, social welfare and population health sectors.

Governance across municipal departments

An integrated approach to food policy **could enhance capacity of municipal (and other) government departments to share practical and technical expertise and increase funding opportunities** through partnerships (McCartan and Palermo 2017). Barbour et al. (2021) note how policymakers are being urged to consider both health and ecological implications of the food system. For example, they can simultaneously address justice (food, social or economic), sustainability (food, urban or others) and other related urban issues (such as labour rights, affordable housing and access to health care). So too does success for many objectives require policy integration. For instance, urban agriculture

requires the support of zoning in planning and urban design to be successful (Castillo et al., 2013; Wheeler, 2004). Moreover, embedding UFPs into departments within and across municipalities can secure greater political support and backing, whilst demonstrating public recognition, legitimisation and assurance of organisational support for long-term success (Arcuri et al., 2022).

Aligning with Hawkes and Halliday (2017: 83), **commitment across municipal departments** can improve buy-in from other departments to co-implement policies, adding capacity, potential co-funding and increasing accessibility to specific audiences. Furthermore, horizontal integration reduces UFPs' vulnerability to electoral change and policy reversal. The allocation of a budget to a UFP further consolidates its position and attraction in the municipality; a budget can incentivise the uptake and maintenance of a UFP, whereas potential withdrawal of that policy would require justification and approval by the city council (Arcuri et al., 2022; Sibbing and Candel, 2021).

A key barrier to the development of multi-level and integrated food policies is the tendency (documented in the academic literature) by municipal food policy-makers to perceive different governance scales as attached to specific problems and levels of responsibility. As Sonnino et al. (2019) argue, economic development issues, for example, are almost invariably connected with the urban/local scale; the environment, in turn, is framed as a global problem and intervention context. To counteract the effects of this siloed political culture, the **participation in food policy-making of both communities and city government** (regardless of whether the policy was initiated 'top-down' or 'bottom-up') **and of a range of actors** from across the food system is helpful in a number of respects. Firstly, it enables a rounded perspective of the issues to be addressed. Secondly, it encourages shared ownership of the policy by different social groups and sectors (e.g., public, private, civil society), which helps to mobilise resources, problem-solving and innovation capacity and foster partnerships between the sectors. Thirdly, involvement of community actors can generate popular support, making the idea to take policy action a powerful one for politicians to address. Fourthly, community involvement enables policy that is relevant to needs and promotes up-take by intended users. These benefits have been documented by de Zeeuw and Dubbeling (2015) in their paper on processes and tools for multi-stakeholder planning.

Belo Horizonte serves as an example of effective intervention across municipal departments. The city created a municipal entity from which all food-related activities across all policy areas were centralised, contributing to the federal *Fome Zero* programme (Dubbeling et al., 2016). Belo Horizonte's integrated urban food policy (text box 4) has since become one of the most extensively integrated UFPs in the world (Rocha and Lessa, 2009).

Text box 4 Integrated Urban Food Policy, Belo Horizonte, Brazil

Type of initiative: Cross-sectoral urban food policy

Aim: To ensure equitable access to sufficient, healthy and nutritious food for all citizens.

Context and history: Belo Horizonte is a city of 2.7 million people in Brazil that experienced economic hardship in the 1990s, when approximately 11% of the population lived in poverty and 20% of children were hungry (Lappé, 2009). In 1993, a food agency was established within the city government to oversee an alternative to the market-based system (Rocha and Lessa 2009; Rocha 2007). This approach shows a high degree of institutionalisation, delivering programmes from the municipal departments in partnership with civil society and private companies (Hawkes and Halliday, 2017).

Description: The policy is guided by the human right to food, which is put into practice by integrating inclusive, universal food and nutrition security within public policy. The government-led program has six streams: 1) subsidised or free meals from popular restaurants; 2) food and nutrition assistance through the school meals programme and the food bank; 3) supply and regulation of food markets, such as low-cost food stores that sell essential produce at fixed prices determined by the municipality and direct procurement through associations of small-scale producers; 4) support to urban agriculture initiatives such as school and community gardens and container growing; 5) food and nutrition education through the use of online resources and a policy knowledge centre; and 6) job and income generation, including through the organisation of professional food courses. In 2015, outcomes included provision of 155,000 school meals, 11,000 meals from popular restaurants and 183 school and community gardens (Hawkes and Halliday, 2017; Rocha and Lessa, 2009; Rocha et al., 2016).

Integration along the CLIC framework:

Co-benefits: Health (poverty and infant mortality rates declined), economic (income creation).
Linkages: Urban-rural linkages through associations of small-scale producers.
Inclusion: Children, the economically disadvantaged, job seekers and the general public.
Connectivity: Between price regulation, schools, health and procurement.

Multi-level governance

A unity of approach across municipal departments can also form the basis to influence 'vertical' governance levels, such as state, national and international issues – essential for addressing the complex structural issues inherent within the global food systems yet experienced at the local level (Sonnino and Beynon, 2015). Examples of urban networks influencing greater issues of societal change include the Dutch City Deal 'Food on the Urban Agenda', which sought to co-design an integrated food strategy for the country, and the US Conference of Mayors' Food Policy Taskforce, which contributed to the federal Farm Bill on the relationship between agriculture and cities (Hawkes and Halliday, 2017).

Municipal governments will need to work with governments at other levels to ensure the smooth management of policies, as polices are often assigned (or hence can be constricted) by state or national governments. This may involve negotiation between governance levels to enable municipal

governments to obtain the necessary power and responsibilities to further develop or deliver policy within their local context (Hawkes and Halliday, 2017; Sonnino, 2023). Key concepts embedded in the CLIC framework can play an important role in these negotiations. For example, 'equity' became one such point of focus in recent years, motivating transformation through the recognition that:

> *"the physical food environment or providing incentives for healthy food purchases will result in only marginal changes to diets and health if large segments of the population are impoverished, spatially segregated, exploited at work, and unable to access basic services such as health care, housing, education, and transportation"* (Cohen, 2022: 427).

Another cross-cutting example is the concept of 'good food' that is "good for people, good for places and good for the planet" (Bristol Food Policy Council, 2012: 3). Cardiff's food charter similarly notes that "good food means fair food: it should be good for people, good for the place we live in, and good for our planet, as well as being affordable and nutritious" (Food Cardiff, 2014: 1), where the charter makes explicit the potential of food to bring a multitude of positive community benefits: "The food we consume has a huge impact on life in Cardiff – not just on our health, but also on our communities, businesses and the environment" (ibid.). Alternatively, the city of Los Angeles uses "good food" to frame its overarching vision for a food system that "prioritizes the health and wellbeing of our residents [and] makes healthy, high-quality food affordable", while contributing to enhance the urban environment, create a thriving economy and protect and strengthen regional biodiversity and natural resources (Los Angeles Food Policy Task Force, 2010: 11).

Concepts such as equity and planetary (One) health can play an important role in helping local issues to climb to the global level, where, the C40 network targets issues of climate change through an urban food practice focus. Cohen (2022: 429) stresses how cities are well-placed to address "larger environmental problems caused by the food system, including agriculture's contribution to climate change, soil depletion, water consumption, and pesticide and synthetic fertilizer use" – where to do so, cities need to exert influence over wider scales "to use their political power to advocate for national policies to address food system sustainability and resilience".

Large-scale structures and networks can facilitate collaborative action and collective capacity and provide opportunities for local government leadership. The Mezitli Female Producers' Market, for example, has attracted global recognition by participating in numerous awards programs, winning the Guangzhou International Award for Urban Innovation in 2018 (Lake, 2019). Skills in media are also useful for utilising terms and platforms that can be translated and made accessible for others. For example, the Mezitli Womens Producers Markets provide numerous interviews and news stories and present their struggles in their award applications in terms of the SDG goals.

There is evidence that **municipal governments have achieved leverage with respect to food policy**. Indeed, many cities are starting to fill the vacuum left by national food policies, and some in the UK and USA are striving to bring more significant transformations of food systems by influencing higher

level policies (Sonnino and Beynon, 2015). To this end, some cities may position themselves as pioneers or 'pilots'; others lobby directly for policy change at higher levels; while some individuals may have influence at more than one level and can, therefore, play a pivotal role in influencing higher levels of policy. This includes politicians, such as the Mayor of Belo Horizonte, who introduced the food security policy and later in his career held an influential national level position" (Hawkes and Halliday 2017: 80). Another example of cooperation across municipalities and governance levels is the Golden Horseshoe Regional Plan, which was developed between seven Canadian municipalities to promote and protect local food and farming practices (text box 5).

Text box 5 Golden Horseshoe Food and Farming Plan, Canada

Type of good practice: City-regional food policy

Aim: A ten-year plan that aims: "to grow the food and agriculture cluster; to link food, farming and health through consumer education; to foster innovation to enhance competitiveness and sustainability; to enable the cluster to be competitive and profitable by aligning policy tools; and to cultivate new approaches to supporting food and farming" (Hawkes and Halliday, 2017: 53).

Context and history: In response to growing urbanisation, seven municipalities formed the Golden Horseshoe Food and Farming Alliance to develop a common food and farming plan for the Golden Horseshoe region in and around the City of Toronto, Canada. The Golden Horseshoe Food and Farming Plan (GHFFP) was built on an earlier plan, the Greater Toronto Area Agricultural Action Plan, which was launched in 2005 and was instigated by farmers who were concerned about new provincial land use policies that did not address economic viability (Hawkes and Halliday, 2017).

Description: The GHFFP emerged from a process of **food asset mapping** that sought: "to provide a baseline for planners and policy-makers to (1) understand, promote and strengthen the regional food system; (2) provide information to enable analysis to inform decision-making; and (3) plan for resilience in the face of climate variability and socio-economic and political vulnerability" (Baker, 2018: 267). Outcomes from mapping include mobilising "food champions" and catalysing neighbourhood discussions that raised issues to engage with city councillors and decision-makers.

Integration along the CLIC framework:

Co-benefits: Economic, social.
Linkages: Strong associations with local farming.
Inclusion: Participation of farmers in decision-making processes affecting the local area.
Connectivity: Link foods, farming and health through consumer education.

4. A TYPOLOGY OF AN INTEGRATED URBAN FOOD POLICY

A **typology** is a way of understanding different sets of information, conditions and factors of a given phenomenon and the actual and potential relationships between them (Collier et al., 2011). As identified in this report, numerous *partial* UFPs exist, yet there is a paucity of approaches for achieving *integrated* UFPs. Drawing on the aspects identified in the literature review, this section proposes a typology of an integrated UFP that highlights opportunities for strengthening and extending partial UFPs towards realising more holistic, comprehensive and integrated policy outcomes.

Risk of paralysis to engage with UFPs can result from the **complexity of urban issues,** which often require multi-components for resolution. Obesity is one such common issue that involves entangled aspects of behaviour, advertising, food stocking, the local food environment, lifestyle factors, physiology, cultural factors, urban design and transport options (Guthman, 2011). We recognise that partial UFPs provide excellent starting points for transformation that can be developed through the CLIC framework to consider possible pathways of expansion. By commencing with a partial UFP model, with numerous examples provided throughout this report, both 'paralysis' can be overcome and next steps planned.

Recognising that urban food system transformation needs **to meet both environmental sustainability *and* social justice goals**, Maughan et al. (2020) offer questions to read for social justice with policy: Do the policies enable the distribution to (and participation of) the most marginalised? Do the polices attempt to build alliances across boundaries? Do the policies address spatial and temporal injustices? Does the policy process prefigure democratic participation? Does the policy process create space for reflexive learning? These dimensions can also be reflected in the various parts of an UFP, which include the following:

- **food** – access to food that is healthy, fresh, local, fair, organic and sustainable; it can also include redistribution of food surplus;
- **land** – land access is essential for food security (production) and sovereignty (empowerment); it can include connecting landowners with producers, temporary land access, and the use of underused sites, such as rooftops, walls and basements;
- **pay** – both as compensation and appreciation to recognise aspects such the fair price for producers and to value labourers' efforts;
- **social capital** – both tangible and intangible benefits from bringing people together, such as social cohesion;
- **knowledge** – learning and transparency; skills and awareness generated from cultural and gendered contributions and from food sharing practices or campaigns;
- **voice** – democratic participation in the design and implementation of UFPs;
- **infrastructure** – such as access to physical hubs and transport networks; it can include local markets and sustainable food procurement schemes (see Smaal et al., 2021).

The typology further helps to identify what **complementary approaches** could be prioritised for expansion (Table 4). For example, by introducing fresh surplus produce to be sold at stalls, nutritional and environmental co-benefits could intersect with urban waste management and logistics. If this fresh surplus produce was sourced from policy-supported social entrepreneurship gleaning programs from farmers' fields surrounding cities, additional economic and social co-benefits alongside urban-rural linkages and inclusiveness through socialisation and migrant support could be generated (see Edwards, draft).

This typology highlights possible, positive outcomes that integrated UFPs can produce. Rather than dictate definite solutions, it welcomes **experimentation and engagement** in their numerous possibilities. Who instigates change is not assumed – as policy may be instigated by numerous stakeholders where others may come into the fore at different junctures throughout its implementation, monitoring and evaluation. Nor are specific types of actions subscribed – instead, diverse possible methods are suggested, recognising the specific and dynamic contexts of each city. Finally, the typology does not dictate a general starting point for all but instead acknowledges that cities start from where they are currently to enable them to choose feasible, attractive pathways for policy making that can be sustained over time. For example, one integrated UFP may start from a focus on food waste redistribution to question how a city could embrace greater social inclusion or instead could choose to address issues of urban waste, say through urban design, to reduce greenhouse gas emissions (GHGs).

Table 4 Typology of food policies in city-regions based on the CLIC framework

MAIN TARGET / CHARACTERISTIC	CLIC MAIN CHARACTERISTICS	FOOD POLICY EXAMPLES (SELECTION)
FPS THAT TARGET FOOD PRODUCTION	*Co-benefits:* Food growing techniques also have environmental impacts *Links:* Food could be produced in the city as well, not only in rural areas *Inclusion:* Food production includes large producers but also small farmers and peasants *Connectivity*: Food production brings in the questions of economy and environment in your city and can also contribute to social well-being	Golden Horseshoe Food and Farming Plan, Toronto, Canada Garden City Initiative, Taipei, Taiwan Microgardens programme, Dakar, Senegal Incredible Edible Todmodern, the UK
FPS THAT TARGET FOOD DISTRIBUTION	*Co-benefits:* Transport is not the only source of GHG emissions, be aware of the environmental and economic impact of your refrigeration and storage facilities *Links:* Distribution centres and chains can link local rural farmers with urban businesses and consumers *Inclusion:* Online food distribution may be a barrier for certain groups (e.g., elderly people, non-native speakers) *Connectivity*: Distribution centres can collaborate with other local companies and organisations (e.g., health and sanitary products businesses) to further develop/strengthen local value chains and economies	Central Market, Vaslui, Romania Marca de la Huerta, Zaragoza, Spain Mezitli Female Producers' Market, Turkey
FPS THAT TARGET FOOD CONSUMPTION	*Co-benefits:* Sustainable diets can contribute to improving health and mitigate the environmental impacts of diets *Links:* Rural organic farmers in the surrounding area can provide food for public (and private) food procurement institutions (e.g., schools, hospitals) *Inclusion:* Sustainable diets can be less accessible for deprived people *Connectivity*: Food consumption brings in questions of health, education, environment and economy in your city	Policy for Sustainable Development and Food, Malmo, Sweden Produce Plus, Washington D.C., USA Amsterdam Approach to Healthy Weight, the Netherlands
FPS THAT TARGET FOOD WASTE	*Co-benefits:* Reducing food waste has environmental as well as economic and social benefits *Links:* Food surplus from rural and urban farmers can be used by food banks in cities *Inclusion:* Community fridges and other community-led initiatives may be more accessible for and less stigmatised by certain vulnerable groups than food banks and other charity organisations *Connectivity*: Food waste involves waste management but also economic, environmental and health issues	RePoPP—Progetto Valorizzazione Organico Porta Palazzo, Turin, Italy Zero Waste program, San Francisco, USA Waste management, Malmo, Sweden

FPS THAT TARGET ISSUES FOR WOMEN	*Co-benefits:* Taking into account social and economic benefits for women *Links:* The realities of urban and rural women in different contexts are diverse and need different approaches *Inclusion:* Women need to be included in food governance and economic decision-making *Connectivity*: The inclusion of women needs to be cross-sectoral, not exclusively related to food issues	Mezitli Female Producers' Market, Turkey
FPS THAT TARGET ISSUES FOR CHILDREN	*Co-benefits:* Taking into account social and economic benefits for children *Links:* The alienation of urban children to rural areas may lead to stigmatisation and stereotyping of rural realities by future generations *Inclusion:* Children needs and demands should be taken into consideration *Connectivity*: Children welfare is a cross-sectoral issue	Plan Alimentario de la Red Municipal de Escuelas Infantiles, Madrid, Spain Healthy nutrition for children program, Kazan, Russia Public School Food Procurement Policy Implementation, Avignon, France Addis Ababa School Feeding Program, Ethiopia
FPS THAT TARGET ISSUES FOR INFORMAL SECTOR	*Co-benefits:* Informal food economies contribute to food security and provide crucial economic support to vulnerable groups *Links:* Consumer groups or food co-operatives can be more or less informal initiatives purchasing food from regional farmers *Inclusion:* Informal alternative food initiatives can also promote elitist processes and behaviours *Connectivity*: The informal sector is very diverse and involves different sectors (e.g., health, economy, social well-being)	Green Carts, New York City, USA Urban agriculture policy, Cape Town, South Africa
FPS THAT TARGET ISSUES FOR INDIGENOUS CULTURES	*Co-benefits:* Indigenous knowledge can contribute to environmental protection and social well-being *Links:* Indigenous peoples in rural areas have particular needs and demands *Inclusion:* Involving indigenous peoples in food governance can contribute to general social well-being and better reflect their needs and demands *Connectivity*: Indigenous perspectives should be taken into account in all sectors of city administration	Healthy Diné Nation Act, USA
FPS THAT ARE MATURE (15 >20+ YEARS)	*Co-benefits:* Matured FPs produce at least two benefits *Links:* Matured FPs have developed links to rural areas by collaborating with municipalities, organisations or informal groups *Inclusion:* Matured FPs include diverse partners in further developing policies and projects *Connectivity*: Matured FPs include different sectors (e.g., environment, health, education, security, economy)	Integrated Urban Food Policy, Belo Horizonte, Brazil Programa de Agricultura Urbana, Rosario, Argentina AGRUPAR (Participatory Urban Agriculture), Quito, Ecuador Zero Waste program, San Francisco, USA

FPS THAT ARE MIDDLE-AGED (5-15 YEARS)	*Co-benefits:* FPs that started with one benefit should look for ways to include other benefits *Links:* Urban FPs need to take into consideration rural needs and demands *Inclusion:* FPs that started in one marginalised area or working with one vulnerable group of people should start scaling-up and/or -out *Connectivity*: Links to other sectors need to be created/strengthened	Alianza por el Buen Vivir, Medellin, Colombia The Greenways, Bobo-Dioulasso, Burkina Faso Farm-to-School/Pre-school Programs, Springfield, USA Marca de la Huerta, Zaragoza, Spain
FPS THAT ARE JUST STARTING OUT (LESS THAT 5 YEARS)	*Co-benefits:* Starting with concrete and manageable goals even if not all benefits are included at the beginning *Links:* Collaboration can start with just one rural area, group of farmers or rural organisation *Inclusion:* Focusing on one particular marginalised area can help develop inclusive FPs that can be furthered developed to other areas of the city later on *Connectivity*: FPs can focus on one sector (e.g., health, environment) at the beginning and reach out to other sectors later on	Addis Ababa School Feeding Program, Ethiopia
FPS INITIATED BY A MUNICIPALITY	*Co-benefits:* Silo thinking constrains the possibilities of achieving more than one benefit *Links:* Linking rural areas to FPs can be achieved through collaboration with other municipalities as well as other institutions and civic and farmers organisations *Inclusion:* FPs are best accepted when other stakeholders (e.g., NGOs, private sector, civic organisations) are included in their development and different interests and needs (especially of those generally excluded from food governance) are taken into consideration *Connectivity*: FPs that are cross-sectoral within the municipality can rise a wider interest and continue after change of legislature	Integrated Urban Food Policy, Belo Horizonte, Brazil AGRUPAR (Participatory Urban Agriculture), Quito, Ecuador Healthy nutrition for children program, Kazan, Russia Alianza por el Buen Vivir, Medellin, Colombia
FPS INITIATED BY CIVIL SOCIETY ORGANISATIONS	*Co-benefits:* Thinking beyond the organisation's goals to include other benefits *Links:* Organisations may represent the needs of the urban or rural populations without a link between the two *Inclusion:* Organisations can be dominated by certain groups of people, values and processes that exclude vulnerable groups and other potential interested people or organisations *Connectivity*: Organisations' goals may overlap with those from other organisations and institutions; hence, building collaborations can broaden the reaching capacity of FPs	Programa de Agricultura Urbana, Rosario, Argentina Healthy Diné Nation Act, USA Green Carts, New York City, USA Picasso Food Forest, Parma, Italy
FPS INITIATED BY HIGHER LEVELS OF GOVERNANCE	*Co-benefits:* Benefits at the local scale contribute to those at larger ones and vice versa *Links:* FPs need to include the needs and demands from both urban and rural populations *Inclusion:* Including the perspectives of those without a voice in food governance and policy by working with other organisations (e.g., NGOs, religious groups, ethnic groups representatives)	National: Farm-to-School/Pre-school Programs, Springfield, USA

	Connectivity: Cross-sectoral and cross-scale collaborations can contribute to achieving more holistic FPs, to a broader acceptance of FPs and to the continuity of FPs after changes of legislature	
FPS THAT ARE LED BY OTHER (EXTERNAL) INITIATIVES	*Co-benefits:* Thinking beyond the initiatives' goals to include other benefits *Links:* Collaboration with other rural/urban initiatives can improve the link between the two areas *Inclusion:* Including other initiatives and institutions in FP making and implementation can help incorporating the perspectives and needs of vulnerable groups that may not be represented by the initiative *Connectivity*: Cross-sectoral thinking and collaborations may bring in other connected issues and goals	Municipality + external stakeholders: The Greenways, Bobo-Dioulasso, Burkina Faso Across municipalities: Golden Horseshoe Food and Farming Plan, Toronto, Canada EU project: FoodE, Sabadell, Spain Research led: RePoPP—Progetto Valorizzazione Organico Porta Palazzo, Turin, Italy

5. RECOMMENDATIONS FOR MUNICIPAL DECISION-MAKERS TO DEVELOP AND IMPLEMENT INTEGRATED FOOD POLICIES

As detailed earlier, our review of both academic and grey literature highlights four key areas of intervention for municipal policy-makers who are interested in developing and implementing integrated food policies and planning frameworks that have the potential to transform food systems. Broadly speaking, these areas involve the following: a) the creation of an inclusive policy context that fosters a collective commitment to food system transformation; b) the ability to make the most of resources (people, knowledge, natural capital, values, skills) that are already in place; c) the mobilisation of different groups of stakeholders around a shared and inclusive vision for the urban food future; and d) food governance integration along both horizontal (i.e., sectoral and territorial) and vertical (multi-level) axes. Section 5 will provide specific recommendations to set in motion a positive trajectory within each of these four areas and conclude by providing a synopsis of specific issues that need to be taken into account at different stages of the policy cycle (i.e., design, implementation, monitoring and evaluation).

Fostering a collective commitment

- The **definition of the problem as understood by the stakeholders** – and particularly the municipality as the institutional body – is a crucial element to foster a collective commitment to the policy and its wider objectives. Questions to ask include: what 'type' of change is feasible in the short to long term? What is the degree of desired change? While not everything can (or should) be achieved at once, **sharing a common vision** of what the city as a whole would like to achieve is both motivational for winning support and measurable in providing tangible steps towards achieving that aim.

- To counter risks of undue dominance and rigidity in policy frameworks, it is also recommended **to seek the full value of each consultation**, where feedback should be integrated and its consequences reflected upon, to ensure participants' voices are heard, deliberated and their outcomes embedded within policy. Municipal governments should **constantly reflect on** their motivations and influence while collaborating with local projects and potentially recognise the need to relinquish control to enable organisations to direct projects.

Building on existing strengths and resources

- Formulating an integrated food policy from scratch can be daunting for municipal policy-makers, especially in cases where there is little or no funding available and the evidence-base is weak. An important first step in these cases is an **assessment of the local context to identify relevant strengths, resources and policy initiatives that could be mobilised and leveraged around food**.

- **Creating synergies between different local assets** is a vital step towards the creation of an enabling and supportive environment for integrated food policies. By valuing people's local knowledge and relationships that are built from place-based experience, by finding new ways to utilise underused urban space effectively and respectfully, and by reducing material losses through the creation of social practices and circularity, UFPs can regenerate cities from within.

Promoting inclusive, diverse, just and relevant representation

- **Participation in policy formulation should include the people who are intended to receive the benefits of the policy, as well as powerful stakeholders** who can support its dissemination and uptake. In this project, for example, depending upon the focus of the UFP, 'co-benefits' could represent people from sectors that 'cross-over' benefits from food systems, such as health and environmental management; 'linkages' could represent farmers from the peri-urban region and market stallholders from surrounding towns, as well as urban areas; 'inclusion' could involve people from marginalised and vulnerable groups and 'connectivity' could refer to stakeholders from associated sectors, such as urban design, planning, water and waste. Key groups within these aspects – in addition to representatives from government and the local community (who may be driving and/or receiving the benefits of the UFP) – include planners, industry, researchers and the media. When to bring stakeholders into the policy formulation process depends on their interest and relevance for that stage.
- **The details of how policy is formulated and expressed also affects their inclusivity.** Recognising that policy formulation can travel from civil society or the needs of vulnerable groups to government departments implies a special effort to ensure core messages are retained. The essential meaning of the cause must also reach the decision-makers with power to act. This involves **carefully choosing the terminology**.

Governance integration

- To fully support, and benefit from, UFPs, **policy engagement and integration are best to occur both horizontally** (i.e., between municipal governments) **and vertically** (from civil society to municipal to state, national and international levels). This may entail the use of novel governance mechanisms (such as the appointment of a food policy officer) as well as active negotiations with higher levels of governance around key issues and common challenges.
- **Concepts and approaches that cut across the CLIC dimensions** can be used to express the benefits of multi-level food policy-making. Another strategy that helps to legitimise and mobilise UFPs at multiple levels and across sectors is **linking it to important global issues,** such as climate change and resource depletion.

The table below draws out specific suggestions from the discussion above to demonstrate how decision-makers in municipal government can design, implement, monitor and evaluate UFPs.

Table 5 Suggestions for the design, implementation, monitoring and evaluation of UFPs for food system transformation

SPECIFIC SUGGESTIONS FOR THE DIFFERENT PHASES OF THE POLICY CYCLE
DESIGN
• To conduct a preliminary baseline study of the urban food system, such as a food asset map • To identify departments and their resources in the municipality that could connect to and support the UFP • To make a strong case to involve all departments/organisations whose involvement is helpful in the design and development of the UFP • To identify and/or establish a central body that can emphasise the importance of food policy for the city, encourage cooperation between departments and provide ways to influence decision making processes within the local government • If consistent legislative and planning scheme priorities and regulatory tools are lacking, to target these areas for improvement • If the municipality lacks the power to achieve its ambitions, either: seek reassignment of powers and responsibilities within the municipality to enable the city to achieve its ambitions; join forces with other cities and/or municipalities; **or** grow solidarity and support until the time is right to instigate larger changes • To involve academic experts to identify how other cities have tackled similar problems • To welcome in diverse stakeholders into the design, implementation, evaluation and monitoring of the policy; • To co-design common definitions, goals and processes with participants • To design in flexibility to the policy approach so that it can adapt over time, including the handover of municipal leadership to other stakeholders if relevant • To position the policy as a city-level test case that can be scaled out across other municipalities and governance levels.
IMPLEMENTATION
• To be aware of the power of language and to frame all policy writing and approaches in inclusive, just, people-centred and empowering language • To explicitly acknowledge, comprehensively address and concretely target social justice within policy drafts • To acknowledge and provide support for growing pre-existing local resources, skills and experiences of participants in the policy process • To select UFPs that target numerous co-benefits with possible expansion into other areas of the CLIC framework (such as connectivity, inclusion and/or linkages) • To consider the implementation over the city-region rather than only an urban or peri-urban scope • To draw up robust terms of reference for all participants (including the municipality) and to ask members to sign an agreement over their participation so that all members know what is expected of them • To help representatives from vulnerable and marginalised groups to participate in an accessible way

- To start with a small practice-based project to initially cooperate, to then expand from, once relationships with stakeholders are established
- To lobby for national and international governance levels and networks for change
- To identify key people with influence, and media sources, to engage in supporting policies.

MONITORING AND EVALUATION

- To embed reflective processes within the policy cycle to assess the direction and quality of the policy
- To hold public meetings and events to discuss community needs and wishes, and incorporate them
- To think creatively about what kind of indicators can be implemented to capture the comprehensive benefits from implementation of the policy in the local context
- To demonstrate relevance and links between local actions with global issues.

6. CONCLUSIONS

This review of UFPs in cities and regions across the world provides an overview of some of the diversity of approaches towards urban food systems change. The report shows that **UFPs are often partial**, focusing on different parts of the food chain, target audiences, points of leadership, processes of participation and locations within and beyond the urban. This report has distilled from a wide body of literature a selection of thirty key examples from which ten descriptive text boxes provide grounded models of applied, contextualised change. These examples have been analysed to reveal facilitating factors, and barriers to (including suggestions to overcome them), food system transformation.

Recognising the need to advance more integrated approaches, this report has conceptualised a **typology of an integrated UFP that applies the CLIC framework to partial UFP examples** to reveal opportunities for increased integration towards more cohesive urban food systems. The report ends by providing suggestions for municipal decision makers and suggestions for Living Lab participants to foster food system transformation in their cities. We hope that this selection of examples inspires and guides others to establish, strengthen and sustain integrated UFP approaches as a democratic and accessible tool to proactively direct cities on just and sustainable trajectories.

7. REFERENCES

Anguelovski, I., Connolly, J.J.T., Cole, H. et al. (2022) Green gentrification in European and North American cities, Nature Communications 13, 3816. DOI: 10.1038/s41467-022-31572-1.

Arcuri, S., Minotti, B. and Galli, F. (2022) Food Policy Integration in Small Cities: The Case of Intermunicipal Governance in Lucca, Italy, Journal of Rural Studies 89: 287-297.

Atkey, K., Elliott-Moyer, P., Freimanis, M. and Raine, K. D. (2017) Stories of policy change: City of Hamilton's healthy food and beverage policy. Canadian Journal of Public Health 108 (5-6): e625-e629

Baker, L. (2018) Food asset mapping in Toronto and Greater Golden Horseshoe region. In Y. Cabannes and C. Marocchino (eds.) Integrating Food into Urban Planning. London: UCL Press.

Baker, L. and de Zeeuw, H. (2015) Urban food policies and programmes: an overview. In de Zeeuw, Drechsel, H.P. (eds) Cities and agriculture. Abingdon: Earthscan.

Baldy, J., Bornemann, B., Kleinschmit D. and Kruse, S. (2021) Policy Integration from a Practice-Theoretical Perspective: Integrated Food Policy in the Making in Two German Cities, Journal of Environmental Policy and Planning: 1-14.

Barbour, L., Lindberg, R., Woods, J., Charlton, K., and Brimblecombe, J. (2021) Local urban government policies to facilitate healthy and environmentally sustainable diet-related practices: a scoping review, Public Health Nutrition 25(2): 471–487. DOI:10.1017/S1368980021004432.

Barling, D., Lang, T. and Caraher, M. (2002) Joined-up food policy? The trials of governance, public policy and the food system, Social Policy and Administration 36(6), 556–574.

Berglund, E., Hassanein, N., Lachapelle, P. and Stephens, C (2021) Advancing food democracy: The potential and limits of food policy positions in local government, Journal of Agriculture, Food Systems, and Community Development, 11(1), 81–98. DOI: 10.5304/jafscd.2021.111.002.

Bristol Food Policy Council (2012) The Bristol Good Food Charter. Bristol: Bristol Food Policy Council.

Candel, J.J. (2019) What's on the menu? A global assessment of MUFPP signatory cities' food strategies, Agroecol Sustain Food Syst 44, 919–946.

Candel, J.J. and Biesbroek, R. (2016) Toward a processual understanding of policy integration, Policy Sciences 49 (3). Pp. 211–231.

Candel, J.J. and Pereira, L. (2017) Towards integrated food policy: main challenges and steps ahead. Environment, Science and Policy 73, 89–92.

Castillo, S. R., Winkle, C. R., Krauss, S., Turkewitz, A., Silva, C., and Heinemann, E. S. (2013) Regulatory and other barriers to urban and peri-urban agriculture: A case study of urban planners and urban

farmers from the greater Chicago metropolitan area, Journal of Agriculture, Food Systems, and Community Development 3(3), 155–166. DOI: 10.5304/jafscd.2013.033.001.

Chicago Metropolitan Agency for Planning (2010) Chicago: GO to 2040 regional comprehensive plan. Chicago.

City of Vienna (2023) ÖkoKauf Wien - Programm für die ökologische Beschaffung der Stadt Wien. Available at: https://www.wien.gv.at/umweltschutz/oekokauf/index.html. [Accessed 26/02/2023].

Cohen, N. (2022) Roles of Cities in Creating Healthful Food Systems, Annual Review of Public Health, 43: 419-437. DOI: 10.1146/annurev-publhealth-052220-021059.

Cohen, N. and Ilieva, R. (2021) Expanding the boundaries of food policy: The turn to equity in New York City. Food Policy 103: 1-12

Collier D., LaPorte J. and Seawright, J. (2011) Putting Typologies to Work: Concept Formation, Measurement, and Analytic Rigor. Social Science Research Network, Rochester, NY, USA.

Corkery, L., Osmond, P. and Williams, P. (2021), Legal frameworks for urban agriculture: Sydney case study. Journal of Property, Planning and Environmental Law, Vol. 13 No. 3. Pp. 218-235.

Coulson, H. and Sonnino, R. (2019) Re-Scaling the Politics of Food: Place-Based Urban Food Governance in the UK. *Geoforum*, 98: 170-179.

Dannefer, R., Williams, D. A., Baronberg, S. and Silver, L. (2012) Healthy Bodegas: Increasing and Promoting Healthy Foods at Corner Stores in New York City. American Journal of Public Health 102, e27-e31

Davies, A.R., Cretella, A., Edwards, F. and Marovelli, B. (2020) The social practices of hosting P2P social dining events: Insights for sustainable tourism, Journal of Sustainable Tourism. DOI: 10.1080/09669582.2020.1838526.

de Zeeuw, H. and Dubbeling, M. (2015) Process and tools for multi-stakeholder planning of the urban agro-food system. In H. de Zeeuw and P. Drechsel (eds) Cities and Agriculture. Developing resilient urban food systems. London and New York: Routledge. Pp.56-87.

Doernberg, A., Horn, P., Zasada, I. and Piorr, A. (2019) Urban Food Policies in German City Regions: An Overview of Key Players and Policy Instruments. Food Policy, 89, 101782.

Dubbeling, M., Aleixo de Paula e Silva, S., Lana Franco, M. and de Oliveira Rocha Alcântara, A. (2016) Belo Horizonte, Brazil - Rural food supply to urban vul- nerable groups. In City Region Food Systems and Food Waste Management: Linking Urban and Rural Areas for Sustainable and Resilient Development, Deutsche Ge- sellschaft für Internationale Zusammenarbeit (GIZ) GmbH, RUAF Foundation and UN Food and Agricul- ture Organization.

Edwards, F. (2023) Food Resistance Movements: Journeying through Alternative Food Networks. Basingstoke, UK: Palgrave.

Edwards, F. (draft) Closing the Hungry City Cycle: Gleaning from Country to City, from Spain to Norway, Agriculture and Human Values.

Edwards F., Manderscheid M. & Parham S. (under review) Terms of Engagement: Mobilising Citizens in Edible Nature-based Solutions, Journal of Urbanism.

Fassio, F. and Minotti, B. (2019) Circular economy for food policy: The case of the RePoPP project in the city of Turin (Italy). Sustainability 11 (21): 6078

Food Cardiff, 2014. Cardiff Food Charter. Cardiff: Food Cardiff.

Forster, T., Egal, F., Getz Escuerdo, A., Dubbeling, M. and Renting, H. (2015) Milan Urban Food Policy Pact. Selected Good Practices from Cities, Utopie/29 Globalizzione. Milan: Fondazione Giangiacomo Feltrinelli.

Frantzeskaki, N. and Kabisch, N. (2016) Designing a knowledge co-production operating space for urban environmental governance—Lessons from Rotterdam, Netherlands and Berlin, Germany, Environmental Science & Policy 62: 90–98.

Fuchs, E. R., Holloway, S. M., Bayer, K. and Feathers, A. (2014) Innovative partnership for public health: An evaluation of the New York City Green Cart initiative to expand access to healthy produce in low-income neighbourhoods. Columbia School of International and Public Affairs

Giambartolomei, G., Forno, F. and Sage, C. (2021) How food policies emerge: the pivotal role of policy entrepreneurs as brokers and bridges of people and ideas, Food Policy 103: 102038.

Guthman, J. (2011) Weighing In: Obesity, Food Justice and the Limits of Capitalism. Location: University of California Press.

Halliday, J. and Barling, D. (2018) The role and engagement of mayors in local food policy groups: comparing the cases of London and Bristol. In: Advances in Food Security and Sustainability, vol. 3. Elsevier, pp. 177–209.

Hawkes, C. and Halliday, J. (2017) What Makes Urban Food Policy Happen? Insights from Five Case Studies. International Panel of Experts on Sustainable Food Systems. Report details. Available at: https://www.ipes-food.org/_img/upload/files/Cities_full.pdf [accessed 20/02/2023].

Horst, M. (2017) Food justice and municipal government in the USA. Planning Theory and Practice 18 (1): 51–70. DOI: 10.1080/14649357.2016.1270351.

Hou, J. (2018) Governing urban gardens for resilient cities: Examining the 'Garden City initiative' in Taipei. Urban Studies 57 (7): 1398-1416

INTA (Instituto Nacional de Tecnología Agropecuaria, 2011) Pro-huerta. Available at: https://inta.gob.ar/documentos/prohuerta [accessed 20/02/2023].

Jácome-Pólit, D., Santandreu, A., Rodríguez, A., Pinto, N. and Paredes, D. (2019) Quito' s resilient agrifood system," ISOCARP Review 15, (Amsterdam: ISOCARP): 271–296.

Jégou, F. and Carey, J. (2015) Creating space for sustainable food systems in urban communities: practical approaches and examples for cities. URBACT II network, Brussels.

Johnson, K. (2020). Food democracy, health disparities and the New York City trans-fat policy. *Public Health Nutrition, 23 (4), 738-746.*

Lake, D. (2019) Women's collective organizations: An opportunity for upward mobility. A case study of the Mezitli Women Producers Market in Turkey, Penn Institute for Urban Research Series on Informality, Women's Collective Organizations: An Opportunity for Upward Mobility, USA.

Lang, T., Barling, D., and Caraher, M. (2009) Food policy: Integrating health, environment and society. Oxford University Press.

Leggat, M., Kerker, B., Nonas, C. and Marcus, E. (2012) Pushing Produce: The New York City Green Carts Initiative, Journal of Urban Health: Bulletin of the New York Academy of Medicine, 89(6). DOI: 10.1007/s11524-012-9688-4.

Lever, J. and Sonnino, R. (2022) Food system transformation for sustainable city-regions: Exploring the potential of circular economies. Regional Studies, 56 (12): 2019-2031

Los Angeles Food Policy Task Force (2010) The good food for all Agenda: Creating a new regional food system for Los Angeles. Los Angeles: Food Policy Task Force.

MacRae, R. and Donahue, K. (2013) Municipal food policy entrepreneurs: a preliminary analysis of how Canadian cities and regional districts are involved in food system change. A report of the Toronto Food Policy Council, the Vancouver Food Policy Council and the CAPA ICPA, Canada, June.

Mahmoud I.H., Morello, E., Ludlow, D. and Salvia, G. (2021) Co-creation Pathways to Inform Shared Governance of Urban Living Labs in Practice: Lessons From Three European Projects. Frontiers in Sustainable Cities 3:690458. DOI: 10.3389/frsc.2021.690458.

Mattioni, D., Sonnino, R. and Milbourne, P. (2021) Report food system actions. Deliverable 1, FOOD TRAILS, Cardiff University.

Mattioni, D., Milbourne, P. and Sonnino, R. (2022) Destabilizing the food regime "from within": Tools and strategies used by urban food policy actors. Environmental Innovation and Societal Transitions, 44: 48-59.

Maughan, C., C. Anderson, and Kneafsey, M. (2020) A five-point frame- work for reading for social justice: A case study of food policy discourse in the context of Brexit Britain, Journal of Agriculture, Food Systems, and Community Development 9 (3): 281–300. DOI: 10.5304/jafscd.2020.093.024.

McCartan, J. and Palermo, C. (2017) The role of a food policy coalition in influencing a local food environment: an Australian case study, Public Health Nutrition 20, 917–926.

Magarini, A. and Calori, A. (2015) Food and the Cities. Food policies for sustainable cities. Milan: Edizioni Ambiente.

Moon, C.J. (2018) Contributions to the SDGs through Social and Eco entrepreneurship: New Mindsets for Sustainable Solutions, Entrepreneurship and the Sustainable Development Goals (Contemporary Issues in Entrepreneurship Research, Vol. 8). Emerald Publishing Limited, Bingley, pp. 47-68. DOI: 10.1108/S2040-724620180000008008.

Moragues, A., Morgan, K., Moschitz, H., Neimane, I., Nilsson, H., Pinto, M., Rohracher, H., Ruiz, R., Thuswald, M., Tisenkopfs, T. and Halliday, J. (2013) Urban Food Strategies: the rough guide to sustainable food systems. Document developed in the framework of the FP7 project FOODLINKS (GA No. 265287).

Morgan, K. (2009) Feeding the City: The Challenge of Urban Food Planning, International Planning Studies, 14:4, 341-348, DOI: 10.1080/13563471003642852.

Mwaura-Muiru, E. (2010) Empowerment for Grassroots Women, Development (Palgrave Macmillan UK) 53(2): 197-199.

Pardilla, M., Prasad, D., Suratkar, S. and Gittelsohn, J. (2014) High levels of household food insecurity on the Navajo Nation, Public Health Nutrition, 17(1), 58–65. DOI: 10.1017/S136898 0012005630.

Parsons, K., Lang, T. and Barling, D. (2021) London's food policy: Leveraging the policy sub-system, programme and plan. Food Policy 103: 102037

Pothukuchi, K. and Kaufman, J.L. (1999) Placing the food system on the urban agenda: The role of municipal institutions in food systems planning, Agriculture and Human Values 16: 213-224.

Rblauvelt (2016) Healthy Diné Nation Act: Challenges before success, Indian Giver, 18 July. Available at: http://indiangiver.firstnations.org/nl160708-03/ [accessed 20/02/2023].

Riolo, F. (2019) The social and environmental value of public urban food forests: The case study of the Picasso Food Forest in Parma, Italy. Urban Forestry & Urban Greening, 45, 126225.

Rocha, C. (2007) Food Insecurity as Market Failure: A Contribution from Economics, Journal of Hunger and Environmental Nutrition 1(4), pp.5–22.

Rocha, C. and Lessa, I. (2009) Urban Governance for Food Security: The Alternative Food System in Belo Horizonte, Brazil. International Planning Studies, 14(4), pp.389–400.

Rocha, C., Constante Jaime, P. and Ferreira Rea, M. (2016) How Brazil's Political Commitment to Nutrition Took Shape. In Global Nutrition Report - From promise to impact: ending malnutrition by 2030. Washington D.C., pp. 11–14.

Rodríguez A., Jácome-Polit, D., Santandreu, A., Paredes, D. and Álvaro, N.P. (2022) Agro-ecological urban agriculture and food resilience: The Case of Quito, Ecuador, Frontiers of Sustainable Food Systems: 6:550636. DOI: 10.3389/fsufs.2022.550636.

RUAF (2015) City Region Food Systems. Urban Agriculture Magazine, 29. URL http://www.ruaf.org/ua-magazine-no-29-city-region-food-systems [accessed 20/02/2023].

Santandreu, A., Rodríguez, A., Jácome-Polit, D., and Paredes, D. (2019) From Urban Gardens to the Agri-Food Pact of Quito, Urban Agriculture Magazine, 21–23.

Santini, G., Dubbeling, M. and Blay-Palmer, A. (2020) 'Tools for food system change. City Region Food System assessment, planning, and policy'. In A. Blay-Palmer, D. Conaré , K. Meter, A.D. Battista and C. Johnston (eds), Sustainable Food System Assessment. Abingdom and New York: Routledge. Pp.178-194.

Sean, E.O, John, J., Greenfeld, A., Alsburg, R., Egge, M., Sandman, S., George, C., Curley, C., Curley, C., de Heer, H.D., Begay, G., Jumbo-Rintila, S., Ashley, M.E., Yazzie, D., Antone-Nez, R., Shin, S.S. and Bancroft, C. (2022) Implementation of Indigenous Food Tax Policies in Stores on Navajo Nation, Health Promotion Practice November, 23(1): 76S–85S. DOI: 10.1177/15248399221112964.

SHARECITY (2019) Sharing Futures Workshop: The Future of Food Sharing Governance, Facilitator's Summary, September, SHARECITY Project, Talent Garden Dublin.

Sibbing, L.V. and Candel, J.J. (2021) Realizing urban food policy: a discursive institutionalist analysis of Ede municipality, Food Security 13(3), 571–582.

Sisnowski, J., Street, J. M., Braunack-Mayer, A. (2016) Targeting population nutrition through municipal health and food policy: Implications of New York City's experiences in regulatory obesity prevention. Food Policy 58: 24-34,

Slade, C., Baldwin, C. and Budge, T. (2016) Urban planning roles in responding to food security needs, Journal of Agriculture, Food Systems, and Community Development 7(1), Fall: 33-48. DOI: 10.5304/jafscd.2016.071.005.

Smaal, S., Dessein, J., Wind, B. J. and Rogge, E. (2021) Social Justice-Oriented Narratives in European Urban Food Strategies: Bringing Forward Redistribution, Recognition and Representation. Agriculture and Human Values 38 (3): 709-727.

Sonnino, R. (2023) Food system transformation: Urban perspectives. Cities 134: in press.

Sonnino, R. (2019) The cultural dynamics of urban food governance, City Culture Society 16: 12–17.

Sonnino, R. and Beynon, B. (2015) Rethinking Food Governance: Urban Innovations. In M. Deakin, D. Diamantini and N. Borrelli (eds.) The Governance of City Food Systems. Milan: Fondazione Giangiacomo Feltrinelli. Pp.35-48.

Sonnino, R. and Coulson, H. (2023) Unpacking the new urban food agenda: The changing dynamics of global governance in the urban age. Urban Studies 58:5, 1032-1049, DOI: 10.1177/0042098020942036.

Sonnino, R. and Milbourne, P. (2022) Food system transformation: a progressive place-based approach, Local Environment 27:7, 915-926, DOI: 10.1080/13549839.2022.2084723.

Sonnino, R., Tegoni, L.S. and De Cunto, A. (2019) The challenge of systemic food change: Insights from cities, Cities 85, February: 110-116. DOI: 10.1016/j.cities.2018.08.008.

Specht, K., Siebert, R., Hartmann, I., Freisinger, U.B., Sawicka, M., Werner, A., Thomaier, S., Henckel, D., Walk, H. and Dierich, A. (2014) Urban agriculture of the future: an overview of sustainability aspects of food production in and on buildings, Agriculture and Human Values 31:33–51. DOI 10.1007/s10460-013-9448-4.

Tosun, J. and Lang, A. (2017) Policy integration: mapping the different concepts, Policy Studies 38(6): 553–570.

Van der Ploeg, J.D., van Broekhuizen, R., Brunori, G., Sonnino, R., Knickel, K., Tisenkops, T. and Oostindie, H. (2008) Towards a framework for understanding regional rural development. In J.D. van der Ploeg and T. Marsden (eds.) Unfolding Webs – The Dynamics of Regional Rural Development. Assen: Koninklijke Van Gorcum.

Wheeler, S. M. (2004). Planning for sustainability: Creating livable, equitable, and ecological communities. New York: Routledge.

Yazzie, Del, Tallis, Kristen, Curley, Caleigh, Sanderson, Priscilla R., Eddie, Regina, Shin, Sonya, Behrens, Timothy K., George, Carmen, Antone-Nez, Ramona, Jumbo-Rintila, Shirleen, Begay, Gloria Ann and de Heer, Hendrik "Dirk". (2022) The Navajo Nation Healthy Diné Nation Act: A Description of Community Wellness Projects Funded by a 2% Tax on Minimal-to-No-Nutritious-Value Foods, *Journal of Public Health Management and Practice (JPHMP)* 28(2), March/April, E471–E479. DOI: 10.1097/PHH.0000000000001371.

Zaganjor, H., Bishop Kendrick, K., Onufrak, S., Aoki, J.R., Whitsel, L.P. and Kimmons, J. (2019) Food Service Guidelines Policies on Local Government Controlled Properties, American Journal of Health Promotion, Nov 33(8): 1166-1173. DOI: 10.1177/0890117119865146.

APPENDIX 1: COMPOSITE FOOD POLICY TABLES, EXCEL SPREADSHEETS AND REPORTS

FORMAT	DATA SOURCE AND RELEVANCE[7]
DATABASE	**Global Database for City and Regional Food Policies,** https://www.buffalo.edu/globalhealthequity/global-projects/foodequity/global-database-for-city-and-regional-food-policies.html
DATABASE	The **Growing Food Connections Local Government Policy Database**, http://growingfoodconnections.org/tools-resources/policy-database/
DATABASE	**SHARECITY 100,** https://sharecity.ie/research/sharecity100-database/
E-BOOK	**The Governance of City Food Systems: Case Studies from Around the World** (Deakin et al., 2016)
REPORT	**Milan Urban Food Policy Pact: Selected Good Practices from Cities** (Forster et al., 2015)
BOOK	**Food and the Cities: Food policies for sustainable cities** (Magarini and Calori, 2015)
BOOK CHAPTER	**Urban food policies and programmes: an overview** (Baker and de Zeeuw, 2015)
REPORT	**Creating space for sustainable food systems in urban communities: practical approaches and examples for cities** (Jégou and Carey, 2015)
STRATEGIES	**A Rough Guide to Urban Food Strategies** (Moragues-Faus et al., 2013)
SUPPLEMENTARY RESEARCH DATA	From *Local urban government policies to facilitate healthy and environmentally sustainable diet-related practices: a scoping review* (Barbour et al. 2021)

[7] This list is adapted from Moragues-Faus et al. (2013).

APPENDIX 2: SELECTION CRITERIA TO PRODUCE A SHORTLIST OF FOOD POLICY EXAMPLES

PRIORITISATION	ASPECT	SELECTION CRITERIA
1.	The CLIC framework	Each FP example must fulfill at least 2 pillars of the CLIC framework. To prioritize FP examples that fulfill more (rather than less) CLIC aspects.
2.	Global North/South	To provide diverse perspectives and issues, whilst enabling features to be considered to expand the project.
3.	City size	Both cities (>500,000) and towns (<500,000).
4.	Maturity/ lifespan	FP examples that are more mature are prioritized are considered as more likely to be evidence-based over those that are just beginning as this suggests that they may have more published documents of their food system outcomes.
5.	Diversity	As this project aims to address the needs of 8 city-regions it requires diverse examples that consider features such as: • Physical characteristics – such as city size, climate type (hot/cold, wet/dry), and density); • Governance type (including political stability and/or election cycle) – key problems that urban food policies could address (such as waste, social marginalization or climate change emissions). • Innovative – as we are seeking food system *transformation*, approaches that build on and break away from more traditional approaches – especially for future situations of dynamic disasters – are highlighted for selection.

APPENDIX 3: GEOGRAPHICAL DISTRIBUTION OF SELECTED FOOD POLICIES

LOCATIONS	FOOD POLICY EXAMPLES
NORTH AMERICA	Farm-to-School/Pre-school Programs, Springfield, USA Zero Waste program, San Francisco, USA Golden Horseshoe Food and Farming Plan, Toronto, Canada Urban Agriculture Ordinance, Detroit, USA Healthy Diné Nation Act, USA Produce Plus, Washington D.C., USA Green Carts, New York City, USA
NORTHERN EUROPE	Amsterdam Approach to Healthy Weight, the Netherlands Marca de la Huerta, Zaragoza, Spain Plan Alimentario de la Red Municipal de Escuelas Infantiles, Madrid, Spain OpenAgri-New Skills for new Jobs in Peri-urban Agriculture, Milan, Italy Milano Food Policy, Milan, Italy RePoPP—Progetto Valorizzazione Organico Porta Palazzo, Turin, Italy Picasso Food Forest, Parma, Italy Public School Food Procurement Policy Implementation, Avignon, France Policy for Sustainable Development and Food, Malmo, Sweden Waste management, Malmo, Sweden
RUSSIA	Healthy nutrition for children program, Kazan, Russia
AUSTRALIA	Horsley Park Urban Agriculture Precinct, Sydney, Australia
CENTRAL AND SOUTH AMERICA	Integrated Urban Food Policy, Belo Horizonte, Brazil Reuse of Vegetable Oils Program (PROVE), Rio de Janeiro, Brazil Programa de Agricultura Urbana, Rosario, Argentina AGRUPAR (Participatory Urban Agriculture), Quito, Ecuador Alianza por el Buen Vivir, Medellin, Colombia
ASIA	City Farm Program, Bangkok, Thailand Garden City Initiative, Taipei, Taiwan
AFRICA	The Greenways, Bobo-Dioulasso, Burkina Faso Addis Ababa School Feeding Program, Ethiopia Microgardens programme, Dakar, Senegal Urban Agriculture Policy, Cape Town, South Africa
EASTERN EUROPE	Mezitli Female Producers' Market, Turkey Central Market, Vaslui, Romania

PARTNERS


CITY OF AARHUS
AARHUS UNIVERSITY
DEPARTMENT OF FOOD SCIENCE
AMB Metròpolis Barcelona
metropolis
BUDAPEST
CARDIFF UNIVERSITY
PRIFYSGOL CAERDYDD
CARIPLO FACTORY
Fondazione CARIPLO
COMUNE DI CAPANNORI
für eine zukunftsfähige Ernährungs- und Landwirtschaftspolitik in der Region
Ernährungsrat BERLIN
ESSRG
EUROPEAN FOOD BANKS FEDERATION
FEBA
LISBOA
UNIVERSIDADE DE LISBOA
ICS
INSTITUTO DE CIÊNCIAS SOCIAIS
cmcc
Centro Euro-Mediterraneo sui Cambiamenti Climatici
Living Lab for Health
IrsiCaixa
Institut de Recerca de la Sida
City of Amsterdam
HUMBOLDT-UNIVERSITÄT ZU BERLIN
ICLEI
Local Governments for Sustainability
ICLEI
Local Governments for Sustainability
AFRICA
ICLEI
Local Governments for Sustainability
EUROPE
CASCAIS AMBIENTE
Gestão do Ambiente Terrestre e Marítimo
voedsel verbindt
VU
Athena Institute
Connecting science and society for a better tomorrow
IN SUPREMÆ DIGNITATIS
1343
UNIVERSITÀ DI PISA
Universitatea Transilvania din Brașov
UNIVERSITY OF SURREY

CONTACT US

Website: http://www.foodclic.eu

Email: foodclic.beta@vu.nl

LinkedIn: @FoodCLIC

#foodclic

Funded
by the European Union