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Urban agriculture in São Paulo: an analysis from the sociology of public action

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Abstract

How can one analyze the public actions of organizations and actors from different sectors? Studies using a policy analysis perspective have shed light on the role of the state in making and implementing urban agriculture (UA) policy. However, this perspective has limitations when it comes to explaining the interactions between the state, civil society, and the business organizations that support it. This article provides an analytical framework derived from the sociology of public action (SPA) to understand how multiple organizations support UA. We have applied the SPA framework to the city of São Paulo and our analysis indicates that civil society has mobilized significant meanings, ideas, and networks to reinforce the importance of UA. As a result, there has been a paradigm shift in terms of UA: it has gone from a state of invisibility within an institutional void to an improved state of policy planning. However, civil society organizations still lead the delivery of services for farmers with intermittent state support, which indicates that there has been a paradigm shift in UA policy planning, but not in policy implementation.

1 Introduction

1.1 The public actions of multiple actors and organizations in UA

Cities have promoted urban agriculture (UA) in various contexts. Over 200 cities have now signed the Milan Urban Food Policy Pact to promote sustainable and local food policies, and this pact highlights the strategic role of urban agriculture in promoting local sustainable food production (Milan Urban Food Policy Pact, 2021). The COVID-19 pandemic has demonstrated the vulnerability of global food systems (Altieri & Nicholls, 2020; Desa & Jla, 2020), and studies of various cities have demonstrated how local food networks are essential to facing challenges in food production and distribution (Blay-Palmer et al., 2021; Biazoti et al., 2021; Mert-Cakal & Miele, 2020).

The development of UA has been proposed as a solution to address multiple issues related to social, environmental, and economic problems having to do with food security, income generation, public health, education, and local economies (Mougeot, 2005; Wegmuller & Duchemin, 2010). In addition, researchers and social activists argue that UA can affect multiple aspects of urban life. For example, they maintain that UA can lead to a more efficient use of public space (Reynolds, 2014), that it can bring the community closer and foster collaboration (Firth et al., 2011), encouraging ecologically conscious behavior (Deelstra & Girardet, 2000) which leads to the development of solidary economies and increased food security (Nugent, 2000), while also promoting sustainable urban planning (Mougeot, 2005, Gorgolewski et al., 2011).

UA typically involves multiple actors that are challenging established public policy cycles. UA has a diverse group of stakeholders such as urban farmers, non-governmental organizations (NGOs), international organizations, social movements, entrepreneurs, and universities (Cabannes,

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2012; Cohen, 2010; Halloran & Magid, 2013a, b; Dubbeling & Merzthal, 2006; Thibert, 2012; de Zeeuw et al., 2000). These actors interact with various national and local government agencies and challenge the traditional policy cycle process.

First of all, most national and regional policies directed towards agriculture are designed for rural areas and fail to address the specificities of urban areas (Dubbeling & Merzthal, 2006; Morgan, 2009). Secondly, since urban areas are densely populated and have dwellings, industries, or services located above this agriculture, the latter has long been a marginal, if not illegal, economic activity in most urban areas (Bryld, 2003). Third, the heterogeneity of actors involved in UA and the diversity of their claims make it challenging for local governmental agencies in terms of their policies and actions (Dubbeling et al., 2011; de Zeeuw, 2000). In all, due to its sheer diversity of forms, actors, and processes, UA presents a challenge, and it has been structured based on state and non-state actors, especially collective actions from civil society, such as NGOs and community organizations.

Considering these dynamics, how should we analyze the public actions of multiple agents and organizations in terms of UA? This paper aims to provide an analytical framework based on the sociology of public action (SPA) to explain how actors mobilize meanings and strategies around a broader public UA action involving state and non-state actors, especially actors from civil society. While a "policy cycle" refers to the decision-making and policy implementation of state organizations, "public action" is more extensive and refers to the collective actions of community organizations, cooperatives, business, including state organizations (Lascoumes & Les Galès, 2012; Surel, 1998, 2000; Thoenig, 1997).

SPA analyzes specific institutional instruments and the delivery of services after combining objective and subjective frames for public action analysis. The SPA literature does not deemphasize the role of the state in policy formulation and implementation (Lascoumes & Les Galès, 2012; Muller, 2000; Oliveira & Hassenteufel, 2021; Surel, 2000), but rather highlights that multiple organizations play a vital role in public action, not only by participating in state policy-making and implementation but also by leading the delivery of services, sometimes even without the involvement of the state (Thoenig, 1995).

Considering the most practical results of public action, while policy analysis uses the term "policy implementation" to refer to states in action, we use the term "service delivery" (Brown et al., 2016; Entwistle & Martin, 2005) to refer to public services delivered by both governments and NGOs. In this paper, we adapt and apply a theoretical and methodological model to analyze both state and non-state public actions related to UA. We provide a broader analysis of UA public action in the municipality of São Paulo and

each specific issue identified deserves to be investigated or existing studies consulted regarding commercial farming in the southern zone of São Paulo (Nagib & Nakamura, 2020), community gardens in São Paulo (Nagib, 2020), the typological diversity of UA in São Paulo (Giacchè et al., 2020), and the implementation of UA policy in São Paulo (Porto de Oliveira et al., 2021a).

1.2 Our research question and the contributions of this paper

The research literature is very rich for the policy analysis of UA (Mansfield & Mendes, 2013; Pothukuchi, 2015; Prové et al., 2016; Thibert, 2012) and the collective action of civil society in regard to UA (Cohen & Reynolds, 2014; McIvor & Hale, 2015; Torres-Lima & Rodrigues-Sanchez, 2008). However, what is lacking in this literature is a model that encompasses both policy analysis and collective action in terms of UA, considering both its subjective and objective aspects. Subjective aspects correspond to ideas, meanings, and symbols, and objective aspects correspond to rules, laws, and institutions related to public action. Considering the interactions of these two dimensions on a larger stage, state and collective processes become more complex and include the dynamics of various types of actors and organizations that mobilize ideas and rules in the public arena, within and outside of the state.

Considering the absence of a research and analytical model to study both state and non-state action in UA, including subjective and objective aspects, this study contributes to developing an analytical framework to guide the construction of a diagnosis of UA-related public action. The analytical framework constructed in this study has been applied to the city of São Paulo, which represents an emergent case of UA featuring strong collective action by farmer organizations and public planning (Giacché et al., 2020; Nagib & Nakamura, 2020; Porto de Oliveira et al., 2021). This analytical framework for UA, enables public bodies, researchers, policy-makers, and civic professionals to understand the strengths and weaknesses of support for planning and strategies to reinforce state and non-state action.

This article consists of five sections that follow this introduction. Section 2 presents the contributions and limits of policy analysis and its application to UA studies. In Sect. 3, we present the origins of SPA and then apply the theoretical framework proposed specifically for UA by Yves Surel. In this section, we also elaborate the SPA analytical framework to be used as a tool to base our diagnosis of UA-related public action. In Sect. 4, we apply our analytical framework to the case of São Paulo. In Sect. 5, we conclude our examination of this analytical framework and its application to the case of São Paulo, and then present the limitations of this study and potential avenues for future research.

2 Contextualizing policy analysis and urban agriculture

2.1 An overview of policy analysis

The public policy domain was essentially founded by Laswell, Simon, Lindblom, and Easton. Policy scholars have emphasized how governments provide public goods and services (Mény & Thoenig, 1989). "Policy" is state action produced by disputes over internal decision processes within the state. With this definition, decisions, choices, and policies emerge to conciliate scientific knowledge, decisions, and the best governmental action (Souza, 2006). Thus, the focus of policy analysis is to produce better evidence to guarantee the utilization of the best choices and results considering the rationality of decision-makers and the logic of state processes.

Scholars identify the following policy cycle stages: (a) problem identification; (b) agenda setting; (c) policy-making; (c) implementation; and (d) policy evaluation (Baumgarter & Jones, 1993; Sabatier & Mazmanian, 1980). However, Majone and Wildawsky (1979) argue that "Public policies are continually transformed by the implementation of actions that simultaneously change resources and objectives" (Majone & Wildawsky, 1979: 170), which means that public policy is not static. Lipsky (1980) also argues that policy-making is often carried out by "street-level bureaucrats," namely those who implement public policies at the local level.

Although some authors, such as Majone and Wildawsky (1979) and Lipsky (1980), have questioned the linearity of the policy cycle, they do not criticize the state-centered action of the policy analysis framework. Suppose farmers' cooperatives organize themselves to build partnerships with community-supported agriculture (CSA) and associations to sell local and organic food without the support of the state. In this case, they are not operating within the policy cycle, but CSA and its associations are acting in the public interest to support local farmers, that is, supplying and purchasing local, organic food. Thus, if one is interested in analyzing a more significant phenomenon of public interest beyond the state, a lens that includes both state and non-state actors is needed.

2.2 Urban agriculture: an analysis of policy and collective actions from civil society

Studies of state and non-state action related to UA usually rely on policy recommendations, planning, and implementation. Zeeuw et al. (2000) and Bryld (2003) have established recommendations for UA policy-making. Zeeuw et al. (2000) recommend that first it is essential to construct a diagnosis of UA's specific, local context and elaborate policy structures to support it. The authors suggest that UA policy must be consolidated into three areas: "urban land use policy; urban food security and health policy; and environmental policy." (de Zeeuw et al., 2000 p.165). They believe that the first step to promote UA is to assure its legality by creating laws and regulations that guarantee its legacy and governance based on multiple sector arrangements, with food and urban planning determined by democratic participation.

Thibert (2012), Halloran and Magid (2013a, b) analyze UA planning and policy-making. Halloran and Magid (2013a, b) analyze the role of local government in promoting sustainable UA in Dar es Salam (Tanzania) and Copenhagen (Denmark). Thibert (2012) analyzes UA governance and institutional arrangements in North America, especially municipal land-use policies for UA and their marginal place in urban planning.

Mansfield and Mendes (2013) and Prové et al. (2016) analyze what enables UA policy implementation in three different cities: Toronto (Canada), London (United Kingdom), and San Francisco (USA). Prové et al. (2016) evaluate UA governance in Warsaw (Poland) and Ghent (Belgium), especially the government's perceptions and attitudes toward promoting land access for UA.

Torres-Lima and Rodriguez-Sanchez (2008) state that farmers in Mexico City have developed a robust collaboration to sell their products within a context of flat support for public policies and have developed various recommendations for policy improvements. McIvor and Hale (2015) demonstrate how citizens and non-profit organizations develop relationships and take collective action to develop urban agriculture projects in Denver (USA) and note that policy councils can play a vital role in expanding these collaborations. Cohen and Reynolds (2014) study how informal networks and NGOs are engaged in UA and what New York specifically lacks in UA planning and policy support.

This literature has made a great contribution to analyzing and recommending how governments can support UA. Urban agriculture also receives significant support from civil society organizations, and during the pandemic, the literature has demonstrated that the most resilient local food systems feature multiple collaborations, state action, non-state action, and community-supported agriculture (CSA) (Blay-Palmer et al., 2021; Friedman, 2020). Since UA can be promoted by the government, the non-profit sector, or multiple actors, there is a need for an analytical framework that understands process construction for state and non-state actors involved in UA. To respond to this need, we present the sociology of public action (SPA) as applied to UA.

3 Our contribution: the sociology of public action analytical framework

3.1 The origins of the sociology of public action

The SPA has brought together a group of analysts and researchers inspired by the movement of new sociologies and the articulation of new approaches that shed new light on policy analysis. It doesn't deny the importance of policy analysis, which is more focused on state processes, but it highlights the importance of analyzing both the subjective and objective aspects of action, and it also considers the role of non-state organizations in stimulating public action outside of state processes.

These new sociologies emerged in the 1980s and were intended to overcome the dichotomies between macro- and micro-, agency and structure, wholistic and individual, and objective and subjective approaches (Vandenberghe, 2013). This movement featured various sociological fronts that questioned the functionalist sociology that dominated American sociology until the 1960s (Trusz & Parks-Trusz, 1981). New French sociology, in particular, exists on a continuum with the constructivist sociology movement, which itself can be understood as consisting of three strands: phenomenological, dialectic, and structuralist.

The phenomenological strand focuses on the cognitive constructions of microsociology. The dialectic strand focuses on subjective influences in the construction of macrosociology. By contrast, the structuralist strand works with social constructions and deconstructions, seeking elaborate forms of classification.

Since each of these movements was focused on specific issues that were not integrated, Bourdieu (1989, 1996) decided to develop his theory on campus and habitus to integrate the three strands and eliminate the dichotomy between agency and structure, subjectivity and objectivity. Bourdieu (1989, 1996) affirmed that "The real is relational" where there is a composition of subjective and the objective reality; "It is this double truth, objective and subjective, that constitutes the complete truth of the social world" (Bourdieu, 1989: 53). Following the tendency to integrate structuralism, values, and action, Bourdieu's theory gained prominence due to its three-dimensional nature which corresponds to the integration of action, structure, and the symbols of social reality.

In all, each strand of the new sociology presents a contribution to understanding the subjective construction of public action that the new SPA incorporates. Authors of the new SPA (Lascoumes & Les Galès, 2012; Muller, 2000; Palier & Surel, 2005; Thoenig, 1995) appreciated efforts to explore the subjective construction of reality proposed by these strands and incorporated them in the construction of their theories.

The SPA and, in particular, the cognitive analysis of public action proposed by Pierre Muller and Yves Surel, therefore offer analytical devices to understand both the subjective constructs of reality and the objective pragmatic analysis of public action. As mentioned above, the SPA questions the linear, statist perspective of policy analysis, and inspired by the new strands of sociology it builds theories to analyze public action more broadly. Thus, because the SPA considers the analysis of actors, ideas, and institutions on a larger stage, state regulation influences public action, but it is not limited to just state processes.

3.2 The analytical framework: an analysis of public action related to urban agriculture

We apply the analytical framework of public action analysis constructed by Surel (1998, 2000) to UA based on policy recommendations in the UA literature.

Muller and Surel (2008) claim that ideas, modes of action, and institutional norms, mobilized by the network action of actors around an issue, form a cognitive matrix that produces a paradigm shift, that is, the passage from one cognitive matrix to another.

To analyze the construction of cognitive matrices, Surel (1998, 2000) propose the following theoretical dimensions: (i) metaphysical principles, (ii) specific principles, (iii) modes of action, and (iv) institutional instruments. Since Surel (2000) also mentions the influence of context and historical assumptions on cognitive matrices within the analytical framework, we merge these contextual categories into "historical and socio-institutional assumptions."

Metaphysical principles are related to world visions and abstract ideas that justify and produce the differences between social groups. They are normative ideas and images, such as individual freedom versus social equality (Surel, 1998). The specific principles are the mechanisms of the operationalization or materialization of values in political systems or specific public policies. Their modes of action are the methods and strategies used to make the values involved in actions concrete. Institutional instruments are the drivers of such actions, whether they are legal regulations, laws, norms, or programs, etc.

According to Surel (1998, 2000), changes in metaphysical principles, specific principles, modes of action, and institutional instruments produce changes in cognitive matrices, resulting in paradigm shifts. Since outcomes of public action are also considered to be essential issues for public action (Lascoumes & Les Galès, 2012), we include the analysis of outcomes of these paradigm shifts in our analytical framework.

Given our field analysis and review of the UA literature, we adapt the theoretical dimensions of the cognitive matrix to the field of UA, naming it "operational dimensions" in the

following subsections and Fig. 1. When applying specific historical and social assumptions to UA, in addition to considering the historical assumptions of UA, scholars suggest that it is important to consider local context and the types of UA when categorizing it (Bryld, 2003; Napawan, 2016; Zeeuw et al., 2000). We have also selected the most common institutional instruments and UA indicators in the UA policy analysis literature (Bryld, 2003; Mansfield & Mendes, 2013; Napawan, 2016; Prové et al., 2016; Zeeuw et al., 2000). Finally, we have chosen to analyze the interrelationship of specific principles, metaphysical principles, and modes of action as the same process of articulation between ideas and action.

3.2.1 Historical and socio-institutional assumptions

Given that historical and socio-institutional assumptions are constructed according to local contexts, this analytical dimension will be developed around three main themes: (a) the local context, (b) the types of UA, and (c) the historical assumptions of UA-related policy and public action construction. A local context is a set of institutional conditions

for local analysis. The various types of UA characterize the practices they involve, making it necessary to describe farmer and citizen profiles, the types of work they do, and the forms of collaboration involved. The discussion of the historical assumptions of UA demonstrates UA's historical context, which still influences it today.

3.2.2 Metaphysical principles, specific principles, and modes of action

Actors create strategies (modes of action) to materialize their ideas (specific principles) about a normative vision of the world (metaphysical principles). Due to the clear interrelationships between metaphysical principles, specific principles, and modes of action, these concepts are analyzed as parts of the same process. The investigation analyzes which ideas and world vision actors defend through UA (metaphysical principles) and how they act (their modes of action) to put UA into practice (specific principles).
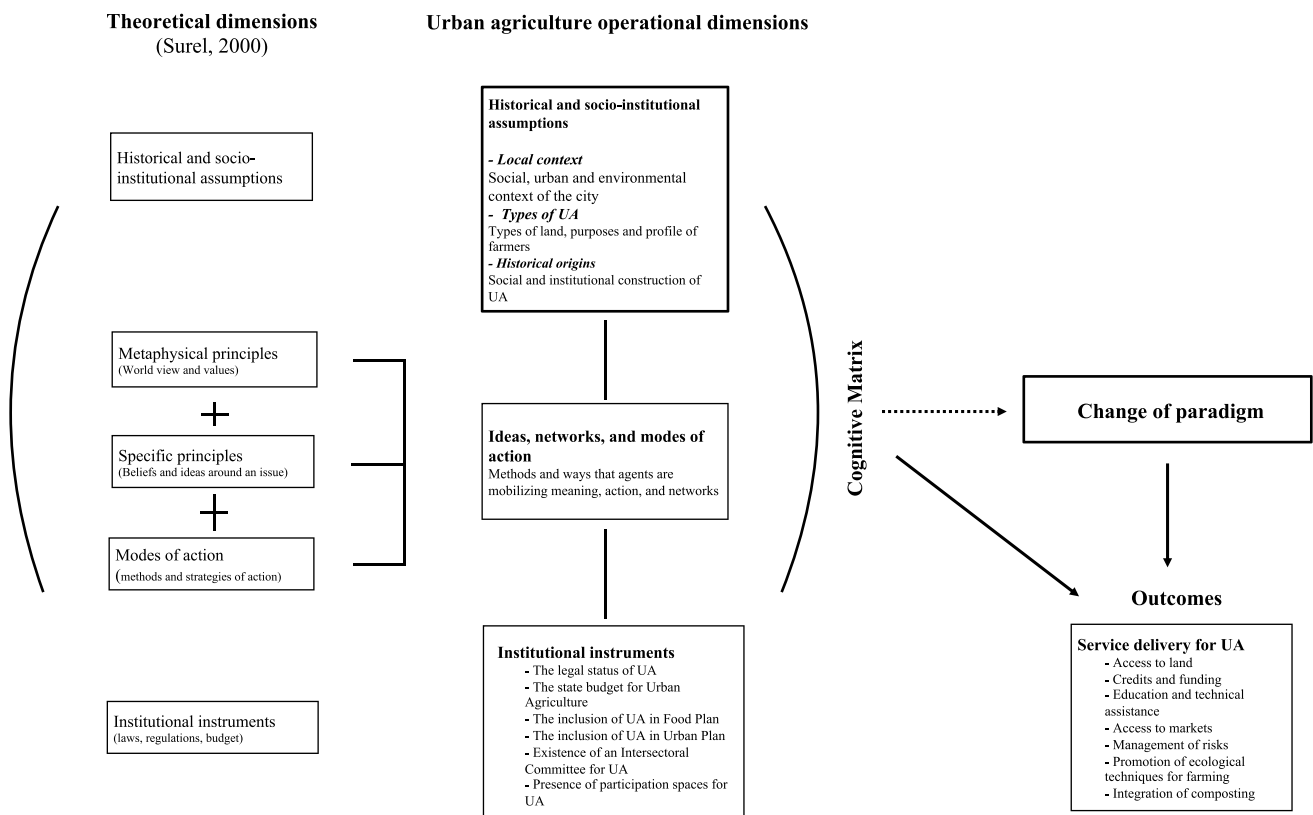

Fig. 1 Framework analysis and its application to UA. Elaborated by the Authors

3.2.3 Institutional instruments

Building on the literature of policy recommendations (Bryld, 2003; Zeeuw et al., 2000) and analysis (Halloran & Magid, 2013a, b; Mansfield & Mendes, 2013), we propose six key indicators to analyze the institutional instruments of UA. The questions that guide the analysis have two dimensions: "yes" or "no" answers and qualitative answers. Table 1 describes the guide to construct these indicators:

3.2.4 Paradigm shifts

Paradigm shifts occur when there is a passage from one cognitive matrix to another in which values and representations have substantially changed. In the case of UA, these changes relate to strategies and modes of action to support UA-transforming laws, regulations, and programs (institutional instruments). Cities, of course, may experience no paradigm shift; however, it is still essential to analyze outcomes using the traditional cognitive matrix.

3.2.5 Outcomes: service delivery for urban agriculture

The outcomes of the cognitive matrix are constructed around meanings and institutional instruments. We maintain that service delivery is the primary outcome of these processes, because it is the main strategy used to support UA. Actors and organizations struggle to provide institutional instruments and resources that invest in service delivery to support UA. Using the policy recommendations established by de Zeeuw (2000), we identify seven main types of UA service delivery: (i) access to land, (ii) credit and funding, (iii) education and technical assistance, (iv) access to markets, (v) risk management, (vi) the promotion of ecological techniques for farming, and (vii) the integration of agriculture and composting.

Given that state organizations support UA, but multiple organizations also support it, the framework suggests the analysis of service delivery by state and as well as non-state organizations.

3.3 Summary of the analytical framework applied to urban agriculture

The analytical framework for public action related to UA has been constructed by integrating and adapting the theoretical dimensions of Surel's (1998, 2000) cognitive analysis, which is composed of the cognitive matrix and its outcomes. We define three main operational dimensions that make up the UA cognitive matrix: (1) historical and socio-institutional assumptions, (2) ideas, networks, and modes of action, and (3) institutional instruments.

We have created three main subgroups for the historical and contextual assumptions that are aligned with UA's territorial dynamics: the local context, UA's social and institutional construction history, and UA's types. The second operational dimension we have elaborated based on the integration of metaphysical principles, specific principles, and the modes of action of the original theoretical model. When applied to UA, we have regrouped it into an integrated process of actor mobilization of meanings, actions, and networks. The third operational dimension is the analysis of institutional instruments. When applied to UA, we identify five main institutional instruments, as stated in Fig. 1.

Finally, when there are significant changes in the three operational dimensions of the cognitive matrix, we have a paradigm shift that creates a new cognitive matrix. When there are no significant changes in the cognitive matrix, service delivery outcomes may be incremental. However, in both cases, cognitive matrix outcomes should be analyzed considering the seven main services as stated in Fig. 1.

4 Application: urban agriculture in São Paulo

This framework guides the present case study in understanding how social and institutional organizations act to provide support for UA within the local context of the city of São Paulo.

Table 1 Institutional Instrument Indicators. Elaborated by the authors

Indicators: Institutional instruments	Investigative questions
The legal status of UA	What is the legal status of UA? What are the regulations that apply to UA?
The state budget for UA	Is there a specific state budget for UA?
The inclusion of UA in a food plan	Is there a food plan? To what extent is UA involved in food security planning?
The inclusion of UA in the urban plan	Is there an urban plan? To what extent is UA involved in food security planning?
Existence of an inter-sectorial committee for UA	Is there an inter-sectorial group, committee, or department for UA? To what extent are UA services formally implemented by cross-sector or multiple organisation consortia?
Existence of participation spaces for AU	Is there a formal participation space for UA?

Our data collection strategies consisted of semi-structured interviews, participatory observations, and documental analysis. We conducted 36 semi-structured, transcribed interviews with farmers (10), activists (5), government managers (13), the private sector (1), and NGOs (7) in the city of São Paulo. We also conducted participatory observations of public hearings, public meetings of the Food Council, informal meetings of civil society, and farmer organizations beyond their participation in urban farms and gardens. The interviews were conducted from 2015 to 2017 and the participatory observations were made from 2014 to 2018.

4.1 Historical and socio-institutional assumptions

4.1.1 The local context of São Paulo

The municipality has about 12 million inhabitants, and among many of its historic city-planning problems, three of them pertain to UA: the concentration of services and economic activities in the central area of the city; the marginalization and concentration of poverty in the suburbs and peripheral districts (Rolnik & Frúgoli, 2001); and a lack of integration in terms of the city's green areas, which has led to significant environmental and public health problems.

According to the Brazilian Institute of Geography and Statistics—IBGE (2017), 50% of the workers earn less than the minimum wage, US$ 213.00,[1] and the majority of the population lives in highly urbanized areas. Although the municipality has 42.2% vegetative cover, it lies mainly in areas of environmental preservation and is not integrated within the city (Amato-Lourenço et al., 2016). Given the city's context of great socioeconomic vulnerability and a lack of integration between residents and nature, UA offers greater integration of green and urban areas and it can even generate jobs and income on a local level. Although UA has great potential in terms of mitigating environmental and socioeconomic problems, and despite remarkable recent advances in institutional instruments, UA has received limited support (Porto de Oliveira et al., 2021).

4.1.2 Types of urban agriculture in the city of São Paulo

Currently, there are four main types of UA. The first consists of commercial gardens that provide income for vulnerable people on public or public–private land, which are established in government-owned areas or water, pipeline, and energy transmission line areas. These low-income farmers are mostly located in the eastern and northern zones of the city. The demographic profile is diverse and data analysis shows that there are Japanese, Portuguese, and Italian descendants, as well as migrants from the northern and northeastern regions of Brazil (Porto de Oliveira et al., 2021; Valdiones, 2013) The second consists of commercial farms for income generation in the rural area of the extreme southern zone. Around 70% of these farmers are Japanese descendants, and they produce food in farms which are characterized by their own or occupied land (Nagib & Nakamura, 2020; Porto de Oliveira et al., 2021; Valdiones, 2013) The third consists of community gardens in public squares, and there is a significant presence of environmental activists associated with these gardens (Nagib, 2020). The fourth consists of school and household gardens. Commercial farms have the most demand for services, mainly because they require more technical skills, planning, production, and marketing logistics. Moreover, commercial farming receives more attention from the state and activists due to its capacity to generate financial income for families.

Commercial farming is concentrated mainly on the edges of the city. However, in recent years, the community garden movement has grown as a civic action that has established connections with commercial gardens to promote local food and social awareness of the city's social and environmental issues.

According to data from the Brazilian Institute of Geography and Statistics—IBGE (2017), São Paulo has 550 agricultural production units, each capable of employing at least three farmers. However, community, school, and institutional gardens that promote education and healthy food are not included in this data. Still, some urban gardeners that work with food production and commercialization do not correspond to the institutional criteria used in determining agricultural production units.

4.1.3 The historical origins of urban agriculture

Agriculture has always been present in the city of São Paulo, and with its urbanization, UA has become more evident in the peripheral regions, although for many years it was an invisible activity without institutional support. However, in recent years social organizations have started to support agriculture more, and farmers have become more organized, as citizens have started to create community gardens (Caldas et al., 2019; Nagib & Nakamura, 2020; Porto de Oliveira, 2017).

The first government-supported UA emerged in the 1980s under the government of Franco Montoro when the first lady of the state of Sao Paulo Lucy Montoro implemented garden projects in unused public spaces devoted to water, electricity, and fuel viaduct projects. The purpose of these gardens was to fight hunger and poverty in the state of São Paulo (São

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[1] Estimated value in US dollars, according to the exchange rate published by Brazilian Central Bank in 2021 (US$ 1 = R$ 5.16 on June 18, 2021). The original value in reais: 1,100.00 (minimum wage in 2021).

Paulo, 1987). Although some municipalities have continued to support it, the state government did not see this initiative through.

In the city of São Paulo, it was not until 2004 that UA reappeared on the policy agenda when it was institutionalized by Law 13,727/2004, which created the Urban and Peripheral Agriculture Program of São Paulo (PROAURP).[2] However, the administration changed, which led to the elimination of the Department of Agriculture and neglect of the new law's implementation.

Later, specific improvements were made to the Special Environmental Fund (FEMA).[3] The inclusion of ecological aspects of UA and the creation of two Houses of Ecological Agriculture (CAE)[4] was launched through Decree Nº 51,801/2010. This, moreover, allocated specific funds to NGOs who were working on UA. With the subsequent increase of UA, NGOs and new activists working with community gardens and agroecology, strategic modes of action emerged to strengthen UA-related public actions, policies, and investment (Porto de Oliveira, 2017).

In all, the historical construction of UA in São Paulo shows that, besides the input of state investment in community gardens for low-income families during the 1980s, UA declined in the city and existed in an institutional void until 2004. Then, even when a new law established a municipal UA program, political change marginalized it again. However, this historical trajectory changed when NGOs and activists organized network actions for UA and built strategies to transform urban laws in 2011. The following section discusses this transformation in greater depth and presents the interaction between ideas, networks, and modes of action, as suggested by the analytical framework proposed above.

4.2 Ideas, networks, and modes of action

The establishment of networks of farmers, local NGOs, and community garden activists has given UA political clout during the past ten years (Nagib & Nakamura, 2020; Porto de Oliveira, 2017). This process has occurred due to the promotion of UA as a strategy to promote healthy ecological practices, improve the working conditions of farmers, and raise consumer awareness about agroecology and the value of farming. The promotion of these values and ideas has led to the engagement of more people and organizations defending the importance of UA, and three different modes

of action have emerged from this. The first is an improvement in the organization and working conditions of farmers. The second is creating and improving community gardens to promote environmental and social awareness. The third is participating and negotiating to improve UA institutional instruments politically.

The first mode of action began with the creating of two Municipal Houses of Ecological Agriculture and FEMA municipal funding which supported a few NGO UA projects, municipal technicians, and NGO project managers working with farmers to create formal agricultural organizations to reinforce the institutional structures that include farmers in government food purchases. Thus, in 2011 farmers from the extreme southern zone of the city created the Rural Farmer and Clean Water Agroecological Cooperative of São Paulo (Cooperapas).[5] In 2011, another group of farmers created the Farmer's Association of the Eastern Zone, reinforcing farmer organizations to promote organic and local food in addition to healthy food in the public schools.

The second mode of action emerged in 2011 when community gardens arose in public squares, primarily because of an information exchange about gardening and environmental action promoted by a Facebook group called Urban Horticulturists,[6] which currently has more than 80,000 members exchanging knowledge about gardening. In 2012, part of the group decided to create community gardens as a strategy to put knowledge into practice through community organization, action, and sensibilization in terms of environmental and agroecological issues. In 2016, community gardeners started another network called the Community Gardens Union to exchange knowledge and action strategies to reinforce community gardens through personal meetings. Most of these actors have also worked on establishing policies, regulations, and social awareness about farmers who are facing social vulnerability. Thus, these networks of actors and actions promote UA as a manifestation of ideas related to urban, environmental, and food system changes through the practice of gardening.

The third mode of action combines promoting social awareness and advocacy to build institutional instruments for urban agroecology through urban and food policies. This movement began with network collaboration in governmental spaces and was later driven by municipal policy councils. From 2011 to 2016, two main groups worked on this issue: the Urban Agroecological Movement of São Paulo MUDA-SP,[7] which focused on the social diffusion of information,

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[2] Original name in Portuguese: *Programa de Agricultura Urbana e Periurbana: PROAURP.*

[3] Original name in Portuguese: *Fundo Especial do Meio Ambiente: FEMA.*

[4] Original name in Portuguese: *Casa de Agricultura Ecológica: CAE.*

[5] Original name in Portuguese: Cooperativa Agroecológica dos Produtores Rurais e de Água Limpa da Região Sul de São Paulo: Cooperapas.

[6] Original name in Portuguese: *Hortelões Urbanos.*

[7] The original name in Portuguese is *Movimento Urbano de Agroecologia de São Paulo: MUDA-SP.*

Fig. 2 Ideas, networks, and modes of action. Elaborated by the Authors
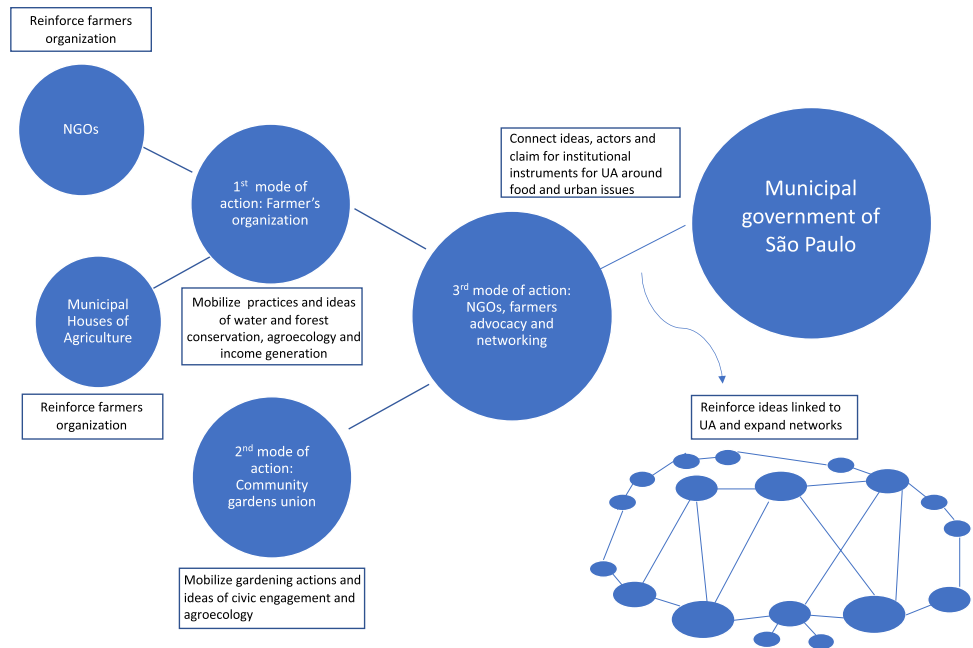
workshops, and events about agroecology and healthy food, and the Platform to Support Organic Agriculture in São Paulo, which is made up of NGOs and farmers' organizations which are focused on political participation and negotiation to promote municipal UA policies and regulations. Later, the Food Safety and Sustainable Nutrition Council and the Rural Sustainable Development Council were created, and several members of the Platform to Support Organic Agriculture and MUDA-SP became members of these councils. Moreover, individuals engaged in community gardening and farming started to participate in district councils and other public hearings to catalyze discussions of UA.

The emergence of these three modes of action bolstered UA's political force, reinforcing advocacy and UA networks, as illustrated in Fig. 2.

4.3 Institutional instruments for urban agriculture

UA institutional instruments have been more structured over the past two decades, mainly because of a combination of institutional restructuring and social participation that has advocated including UA in institutional arrangements. UA has gone from an institutional void, to improving all the institutional instrument indicators proposed by this study's analytical framework through the mobilization of these actors and organizations utilizing the ideas and modes of action mentioned above. Table 2 presents these improvements.

Overall, institutional UA instruments have made significant improvements in the city of São Paulo. The city checks off almost all of the institutional instruments recommended

Table 2 Institutional instruments for urban Agriculture at the municipal level. Elaborated by the Authors

Legal instruments: The legal status of UA	- UA-specific municipal programs, namely, the UA Program (Municipal Law 13.727/2004 and Municipal Decree 51.801/2010)
Public budget for UA	- No specific budget line for UA - Municipal funding for short-term projects implemented by NGOs through the Special Fund for Environment and Sustainable Development - International Award Bloomberg Mayors Challenge to invest 5 million dollars in UA
Inclusion of UA in the food plan	- UA is included in Municipal Food Plan in 2016 - Establishment of Law 16.140/2015 to enforce municipal purchase of local food for school meals
Inclusion of UA in the urban plan	- UA is included in the two last Municipal Master Plans (2002–2014/2014–2030), with increased presence in the last Master Plan (2014–2030) - The city also created the Agroecology and Solidary Rural Development Plan
Existence of an inter-sectorial UA committee	- No specific inter-sectorial committee for UA. However, UA is an issue at the Inter-secretarial Chamber of Food and Nutrition
Existence of participation spaces for UA	- Food Policy Council and the Sustainable Rural Development Councils as channels to promote UA political participation

by our analytical framework, although a specific UA budget remains a challenge. The funding for UA NGOs is unstable, and no municipal budget exists for UA. Few agricultural technicians work at the Ecological Houses of Agriculture, and its budget is reallocated from another municipal sector. The municipality has gained international funding that is earmarked for UA, but this will only reinforce technical assistance for a short period.

4.4 Paradigm Shift

Although agriculture has always been present in the city of São Paulo, it was an invisible, scattered activity deprived of meaning and connection until the late twentieth century. From the moment social groups started connecting and organizing interventions related to agroecology and organic agriculture (specific principles), they started mobilizing concepts of world values (metaphysical principles) and created different ways of acting by reinforcing the technical assistance provided to farmers, strengthening political and commercial farmer organizations, and bolstering advocacy and community gardening (modes of action).

The connections between metaphysical principles, specific principles, and modes of action changed the city's institutional instruments and reinforced UA-related conditions and values. The progressive establishment of various institutional UA instruments mobilized political participation and negotiation with the municipal legislature and the executive branch, confirming a paradigm shift in UA in this city, as Fig. 3 illustrates. Urban agriculture acquired an essential role within the Food Safety and Nutrition Plan and the Integrated Urban Development Plan, with ten specific goals for UA in the Food Safety and Nutrition Plan and 12 UA goals in the Integrated Urban Development Plan, including the establishment of new rural zones. These zones were created to stimulate farming, ecotourism and forest conservation where there was significant native land and agricultural activities. Now, one third of the municipality has more coherent regulation for rural land, especially in the extreme southern zone of Sao Paulo. Moreover, it was established that the Rural Sustainable Development Council counted as citizen participation for the Agroecological Plan and the Rural Solidarity Sustainable Development Plan. The successful improvement of institutional instruments for UA and its legitimization within the city were crucial to the development of a specific project to connect farmers with consumers that earned the international Mayors Challenge 2016 Award sponsored by Bloomberg Philanthropies. The award provided 5 million dollars to improve agricultural food production, and the local value chain of agriculture, along with agricultural data in São Paulo (São Paulo, 2021).

UA has achieved a paradigm shift through increasing social mobilization, actions, and institutional instruments.

Since it has influenced the actions of both state and non-state organizations, it is crucial to analyze its outcomes for service delivery and policy implementation, which the following subsection will discuss.

4.5 Outcomes from the cognitive matrix: service delivery for UA

Applying our analytical framework to the case of São Paulo demonstrates a passage from one cognitive matrix to another, which demonstrates that there has been a paradigm shift. Thus, the following section presents the outcomes of this second cognitive matrix that correspond to the service deliveries of various types of organizations defined by our analytical framework.

4.5.1 Access to land

Farmers' access to land partially improved in the extreme southern zone of the city through the São Paulo Agriculture Program[8] which was launched in 2016. The program aims to support equipment purchases for farmers and the regularization of farms which are irregularly occupying land in the districts of Parelheiros and Marsilac. However, farmers from other regions that have occupied public–private land have not received support to regularize their occupation, and the program lacks a strategy to improve land access for all farmers.

4.5.2 Access to education and technical assistance

Although the city of São Paulo has a specific UA program, the municipal registry of rural farmers indicates that only 11% of the city's farmers receive technical assistance from a governmental organization. None of these irregular farmers receive this type of assistance (Valdiones, 2013).

However, NGOs are also working to offer technical assistance in the extreme eastern and southern zones of the city. Funding from the Special Environmental Fund has financed several technical assistance projects implemented by NGOs. This funding, however, supports projects of short duration – two years maximum – and it has been intermittent, which leaves NGOs with the challenge of diversifying their funding. The Connect the Dots project reinforces technical assistance for farmers, but this service is only available for farmers from the extreme southern zone, and it depends on international funding that will end in 2021. In terms of access to education and training, no continuous training courses exist for farmers in the city, but there are specific workshops on farmer entrepreneurship developed

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[8] Original name in Portuguese: *Programa Agriculturas Paulistanas.*

1980 – 2000

2000 – 2020

Historical and socio-institutional assumptions

- Local context
Increase of fast urbanization, decrease and invisibility of agriculture in the city

- Types of UA
Peri-urban farms, urban farms under water and electricity pipelines

- Historical origins

Peri-urban parts of the city resisted on farming practices. In 1980, a program from the state of São Paulo supported farming under electricity and water pipelines.

Historical and socio-institutional assumptions

- Local context
Increase of urban and social vulnerability problems, emergence of social mobilization related to environmental and social issues related to sustainable food systems
- Types of UA
Emergence of community gardens, school gardens and institutional gardens, beyond the historical peri-urban farms, urban farms under water and electricity pipelines

- Historical origins

Institutional void to support UA.

Cognitive Matrix I

Cognitive Matrix II

Ideas, networks, and modes of action
Lack of modes of action to connect ideas and networkInstitutional instruments related to UA

Ideas, networks, and modes of action
Emergence of networks, strategies and modes of action to mobilize meanings and improvement of institutional instruments for UA

Institutional Instruments
Institutional void. The state government supported urban gardening in 1980s, but it didn't have continuity.

Institutional Instruments
- Establishment of regulated program for UA
- Municipal fund for short coming projects of NGOs
- Inclusion of UA in the Food Plan
- Establishment of Intersectoral Committee for municipal food policies
- Establishment of participation spaces for UA

Cognitive Matrix I
1980 – 2000

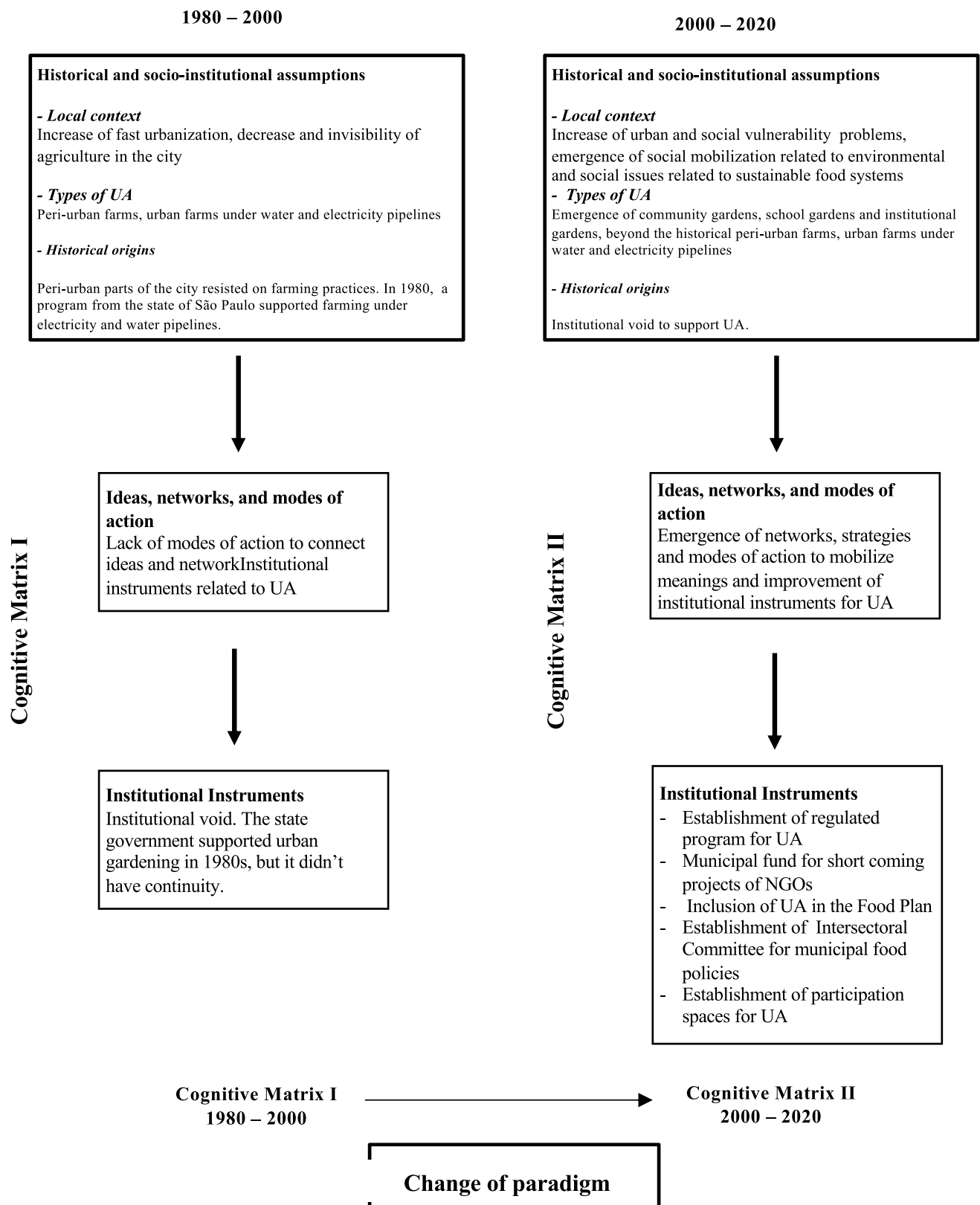**Cognitive Matrix II**
2000 – 2020

Change of paradigm

Fig. 3 UA Paradigm Shift. Elaborated by the Authors

for farmers in the extreme southern zone through the Connect the Dots project, and three municipalities are joining together to plan an agroecology school (São Paulo, 2021).

4.5.3 Access to credit and financing

Regarding access to funding and credit, municipal grants have supported farmers for one to two years of work and have improved their access to federal credit through the National Program to Strengthen Family Agriculture (PRONAF).[9]

Urban farmers, however, do not have access to the public credit that is directed towards rural farmers. Although the federal government published an ordinance establishing their access to public credit, urban farmers have special urban and peripheral conditions that differentiate them from rural farmers (Brasilia, 2014). First of all, they farm on third-party land of either public or private organizations. As a result, they do not have any ownership or land tenure documentation, which regulations require to access credit programs for farmers. Secondly, the law specifies that smallholder farmers are family farmers, and they are required to have more than 50% of their household income generated by agricultural activities. However, in urban contexts, multiple families often live together, and their members have various jobs, which disperses their sources of income. Some farmers work individually in partnerships with other individual farmers, but this arrangement does not characterize them as family farmers.

Although farmers from the city of São Paulo have faced various barriers to public credit, the city of São Paulo has established financial exchanges to support urban farmers. These financial transactions were part of a job fellowship program designed for entrepreneurs with a maximum length of one year that could be extended for an extra year. The city awarded 48 farmers funds in 2014 and awarded 138 farmers funds in 2016. In 2017 and 2018, the fellowship supported 96 farmers (São Paulo, 2019). The fellowship corresponded to the Brazilian minimum wage, but it has now been discontinued.

4.5.4 Marketing and distribution of food

Local food marketing services have made progress through public fairs, social markets, restaurants, and the public purchases of school meals. Specific spaces were created for local farmers at three organic fairs in or near the public parks of Ibirapuera, Burle Marx, and Água Branca from 2015 to 2019. Three different community organizations

also promoted local and organic food during this period: Instituto Chão,[10] Instituto Feira Livre[11] and Armazém do Campo. Later, five prestigious restaurants[12] started to buy food from Cooperapas. With the passage of municipal Law 16,140/2015, the government also started to buy food from Cooperapas and the Farmer's Association of the Eastern Zone (AAZL).[13] Nowadays, approximately 50 restaurants and markets buy food from Cooperapas and urban farmers (Sampa + Rural, 2022). The municipal government of São Paulo created the label "We have Food Production from São Paulo[14]" to certify and identify establishments buying food produced in Sao Paulo municipality and the upload of certified establishments is made at the platform Sampa + Rural.

Despite these improvements in marketing service delivery, farmer participation in fairs and social markets still faces significant challenges. First of all, few farmers have vehicles. Therefore, Cooperapas has been investing in collaboration with the assistance of NGOs and public servants, but farmers from other regions cannot count on this support. Secondly, farmers need to stop working on their farms to sell their produce in fairs, which reduces their time on the farm, and thus they run the risk of harvesting food only to fail to sell it at markets, causing production losses. Thus, although spaces to sell farm produce have improved, they still require technical assistance and funding to provide economically feasible forms of participation in local fairs and social markets.

To facilitate CSA and provide general data to support the connection between various initiatives and urban agriculture initiatives, the Sampa + Rural platform was launched through the Connect the Dots program. During the COVID-19 pandemic, direct sales from farms and deliveries to consumers have been crucial to maintaining farmer's sales (Biazoti et al., 2021), which demonstrates the importance of the connection between consumers and farmers.

4.5.5 Environmental and composting services

The leading UA-related environmental service is the assistance given to farmers to convert from conventional agriculture to ecological farming in the new rural areas where many farmers use pesticides. In other regions of the city, most farmers already follow ecological practices such as

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[9] Original name in Portuguese: *Programa Nacional de Agricultura Familiar: PRONAF.*

[10] http://www.institutochao.org/

[11] http://institutofeiralivre.org/

[12] 1. Arturito, under Chef Paola Carosella, 2. Restaurante da Marlene, under Chef Marlene Pereira Silva, 3. Mangiare Gastronomia, 4. Le Manjue Organique, 5. Sushimar Vegano, 6. Antonietta Cucina, under Chef Filipe Leite, 7. Corrutela, under Chef Cesar Costa, Mocotó, under Chef Rodrigo Oliveira (Veja São Paulo, 2021).

[13] Original name in Portuguese: *Associação dos Agricultores da Zona Leste: AAZL.*

[14] Original name in Portuguese: *Aqui Tem Produção de Sampa.*

composting. NGOs backed by the Special Environmental Fund have carried out projects to support this transition.

The integration of composting and UA remains incipient, however. Although the city of São Paulo published the Solid Waste Management Plan in 2014, which mentioned the integration between UA and composting in its guidelines, this integration is timid. Under the 2013–2016 municipal administration, a composting center was inaugurated in the Lapa neighborhood within the western zone as a pilot project to compost leftover food and use the resulting fertilizer in city gardens. Later, four additional composting centers were created (São Paulo, 2021). In theory, this fertilizer can also be used in urban gardens, but many farmers are currently unaware of this possibility, and no service or technical support exists to facilitate relationships between the compost center and farmers. However, infrastructure for composting processes has already been created.

4.5.6 Risk management

The city of São Paulo has no risk management policy for soil, water, and air contamination that affects UA. The city government does not even foresee such a policy in its UA programs and plans. Public companies such as the Brazilian Agricultural and Livestock Research Company (Embrapa)[15] could perform soil analysis to verify the presence of heavy metal and petroleum contaminants, but the city has not articulated or promoted a plan for any such project. However, two scientists from USP, a Ph.D. candidate in Medicine and an environmental engineer, have made an essential contribution to this issue by studying urban soil and air pollution and creating a guide for best practices to assure water and soil safety and diminish the side effects of air pollution (Amato-Lourenço & Maud, 2018). Nevertheless, farmers still need technical support to manage these kinds of risk.

5 Analytical conclusions

This paper presents the construction of an analytical framework based on the SPA and applies it to a specific case. The proposed framework complements policy analysis, because it suggests a basis upon which to elaborate a diagnosis of the interactions between various types of actors and organizations to construct public action related to UA. We have demonstrated that the SPA is an alternative, complementary framework to analyze multiple actors and organizations in action while considering the mobilization of ideas and strategies to make this action concrete (Lascoumes & Les Galès,

2012; Muller, 2000; Palier & Surel, 2005; Thoenig, 1995). We have presented the theoretical fundamentals of both the framework and the adapted SPA to build an analytical framework to elaborate a diagnosis of UA public action. We also have applied this framework to the city of São Paulo and recommend its use to elaborate other diagnoses of UA public action.

The proposed analytical framework contributes to UA policy and public action analysis, because it translates a theoretical framework to an applied field in an innovative manner. It considers the complex construction of subjectivity (ideas and meanings) and objectivity (norms and institutions) needed to catalyze public action in a specific field beyond the state arena, considering the multiple actors who can promote UA public action.

The application of the SPA framework for UA in São Paulo highlights the connections between (1) UA's historical invisibility within an institutional void, (2) modes of action focused on the strengthening of networks and meanings which have led to (3) the emergence of institutional instruments, which in turn have been conducive to a paradigm shift in terms of UA. These processes have resulted in service delivery outcomes for state and non-state action that are still under construction.

Our analysis demonstrates that the turning point in terms of its institutional void and UA's invisibility in São Paulo was the connection of three modes of action that mobilized meanings and networks around agroecology, income generation and civic action: farmer organizations, community garden networks, and advocacy. As a result of this mobilization of actions and ideas, São Paulo has accomplished almost all of the institutional instrument milestones proposed by the analytical framework except for its budget.

The outcomes from the transformation of the paradigmatic cognitive matrix to UA service delivery have been remarkable in the area of food marketing in which state, non-state organizations, markets, and restaurants have worked together. The COVID-19 pandemic weakened this commercial network, but it reinforced CSA and food basket deliveries. Technical assistance also improved how much farmers could count on government and non-government services, but because funding is intermittent and limited, there is a lot of room for improvement. Access to land, credit, and funding also remains restricted, even though strides have been taken to a certain degree. Currently, private energy companies and public–private water companies are most often used for urban agriculture, and the municipal government's regulation process in terms of land occupation in rural zones is underway. Risk management is non-existent as a municipal service, but university researchers have made improvements in contamination analysis and risk management guidelines for farmers. UA integration with environmental and composting services is promising, but the city

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[15] Original name in Portuguese: *Empresa Brasileira de Pesquisa Agropecuária: Embrapa.*

is far from delivering services in these domains. The city is the main actor in terms of composting, and although improvements have been made in infrastructure, there is no compost delivery for farmers. Thus, much more investment is required to improve the conditions of farm work by hiring more people in this domain so that urban farming can become a strategic activity to fight against urban poverty and social vulnerability.

6 Contributions, limitations and avenues for future research

This paper makes three main contributions. The first is theoretical and complements the improvement of policy analysis. The second is methodological and develops an analytical framework to elaborate a diagnosis of UA public action that can be applied to most cities. The third is a specific diagnosis of UA public action within the city of São Paulo.

First of all, the framework presented here improves policy analysis, because it enables the analysis of state and non-state public action, a broader focus that contrasts with the traditional, state-centered policy analysis framework. This new framework also allows for an improved understanding of the connections between the past, present, and future. Finally, it allows the integration of subjective and objective aspects of the construction of public action by analyzing the relationships between ideas, modes of action, institutional instruments, and service delivery.

Secondly, our methodological contribution is valuable because it defines specific categories of analysis, both subjective and objective, and provides more extensive diagnosis of the UA phenomenon that can be replicated in other cities. It also helps researchers, policy analysts, and consultants diagnose interactions between institutional instruments and the everyday practices of state and non-state actors to identify better strategies to support service deliveries and construct institutional instruments.

The third contribution of this framework is a social and institutional diagnosis of UA in the city of São Paulo, which may be helpful in planning public action, institutional change, and investing in service delivery elsewhere. Our analysis shows that institutional instruments have seen significant improvements through the establishment of new laws, planning, and regulation. Currently, however, these instruments require further effort to provide policy implementation and service delivery. This municipality also needs a larger budget and more significant investment to improve technical assistance to various regions, educating farmers about production techniques, planning, and logistics to sell their products in fairs. The city also needs to create an educational program regarding natural and organic farming to provide technical support for farmers to improve the planning and techniques of their natural food production. Finally, the city needs to manage risk better and integrate composting and farming.

The article also has two main limitations. The first is that it presents a framework to arrive at a general diagnosis, but it could be developed further to establish indicators to measure service delivery through more in-depth evaluations. The second is that it does not examine differences in access to service delivery among different groups in depth. This subject could be pursued further by measuring gender, ethnicity, and spatial differences regarding access to service delivery.

Future research in the field of UA can replicate this analytical framework in other cities. Generating an international platform of localized public action analysis and indicators to measure access to service delivery would be helpful. Finally, this analytical framework may inspire others to apply it to other fields of public action.

Declarations

Conflict of interest statement The authors declare that they have no conflicts of interest.

References

Altieri, M. A., & Nicholls, C. I. (2020). Agroecology and the reconstruction of a post COVID-19 agriculture. *The Journal of Peasant Studies*, *47*(5), 881–898.

Amato-Lourenço, L. F., & Maud, T. (2018). *Agricultura Urbana: Guia de Boas Práticas*. São Paulo: Instituto de Estudos Avançados.

Amato-Lourenco, L. F., Moreira, T. C. L., Souza, V., Barbosa, F., Saiki, M., Saldiva, P. H. N., Mauad, T., (2016). The influence of atmospheric particles on the elemental content of vegetables in urban gardens of Sao Paulo, Brazil. *Environ. Pollut. 216*, 125–134. http://dx.doi.org/10.1016/j.envpol.2016.05.036

Baumgarter, F. R., & Jones, B. D. (1993). Agendas and Instability, in American Politics. Chicago: University of Chicago Press.

Biazoti, A. R., Nakamura, A. C., Nagib, G., Leão, V. O. P. D. S., Giacchè, G., & Mauad, T. (2021). The impact of COVID-19 on urban agriculture in São Paulo, Brazil. *Sustainability*, *13*, 6185. https://doi.org/10.3390/su13116185

Blay-Palmer, A., Santini, G., Halliday, J., Malec, R., Carey, J., Keller, L., Ni, J., Taguchi, M., & van Veenhuizen, R. (2021). City Region Food Systems: Building Resilience to COVID-19 and Other Shocks. *Sustainability, 13*, 1325. https://doi.org/10.3390/su13031325

Bourdieu, P. (1989). *O Poder Simbólico*. Lisboa: Difel.

Bourdieu, P. (1996). *Razões Práticas Sobre a Teoria da Ação*. Campinas: Papirus.

Brasília. (2014). Portaria MDA no 21 de 27 de março de 2014. Estabelece as condiçoes e procedimentos gerais para a emissao de Declaraçao de Aptidao ao Pronaf-DAP.

Brazilian Institute of Geography and Statistics (IBGE). (2017). Censo Agropecuário 2017.

Bryld, E. (2003). Potentials, problems, and policy implications for urban agriculture in developing countries. *Agriculture and Human Values, 20*(1), 79–86.

Brown, T., Potoski, M., & van Slyke, D. (2016). The impact of transaction costs on the use of mixed service delivery by local governments. *Journal of Strategic Contracting and Negotiation, 1*(4), 239–267.

Cabannes, Y. (2012). Financing urban agriculture. *Environment and Urbanization*, 24(2), 665-683.

Caldas, E., & de Lima; Jayo, Martin,. (2019). Agriculturas urbanas em São Paulo: Históricos e taxonomia. *Confins, Paris*. https://doi.org/10.4000/confins.18639

Cohen, M., Garrett, J (2010). The food price crisis and urban food (in) security. *Environment & Urbanization. International Institute for Environment and Development (IIED), 22*(2), 467–482. https://doi.org/10.1177/0956247810380375

Cohen, N., Reynolds, K. (2014). Urban agriculture policy making in New York's "New Political Spaces": Strategizing for a participatory and representative system. *Journal of Planning Education and Research, 34*(2), 221–234.

De Zeeuw, H., Guendel, S., & Waibel, H. (2000). The integration of agriculture in urban policies. In N. Bakker, M. Dubelling, S. Gundel, V. Sabel-Koschella, and A. Zeeuw (eds.), Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda. Feldafing, Germany: Food andAgricultureDevelopment Centre (ZEL).

Deelstra, T., & Girardet, H. (2000). Urban agriculture and sustainable cities. In: Bakker Bakker N, Dubbeling M, Guendel U, Sabel Koschella H. de Zeeuw (eds.) *Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda*. Feldafing: DSE: 43–65.

Desa, G., & Jia, X. (2020). Sustainability transitions in the context of pandemic: an introduction to the focused issue on social innovation and systemic impact. *Agriculture and Human Values, 37*(4), 1207–1215. Available at: http://jpe.sagepub.com/content/early/2014/03/17/0739456X14526453

Dubbeling, M., de Zeeuw, H., & Veenhuizen, R. (2011). *Cities, Poverty and Food: Multistakeholder Policy and Planning in Urban Agriculture*. RUAF Foundation and Practical Action Publishers.

Dubbeling, M., & Merzthal, G. (2006). Sustaining urban agriculture requires the involvement of multiple stakeholders. Cities farming for the future: Urban agriculture for green and productive cities, RUAF Foundation, IIR, IDRC, Ottawa, Canada, 19-40.

Entwistle, T., & Martin, S. (2005). From competition to collaboration in public service delivery: A new agenda for research. *Public Administration*, 83(1), 233–242.

Firth, C., Maye, D., & Pearson, D. (2011). Developing "community" in community gardens. *Local Environment: THe International Journal of Justice and Sustainability, 16*(6), 555–568. https://doi.org/10.1080/13549839.2011.586025

Friedmann, H. (2020). Pandemic reflections from Toronto. *Agriculture and Human Values, 37*, 639–640. https://doi.org/10.1007/s10460-020-10098-6

Giacchè, G., Porto, L., Nagib, G., Nakamura, A. C., & Ranieri, G. R. (2020). Typological Diversity of Agriculture in a Densely Urbanised Region of São Paulo, Brazil. In: Urban Food Democracy and Governance in North and South. International Political Economy Series. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-17187-2_16

Gorgolewski, M., Komisar, J., & Nasr, J. (2011). Carrot city. New York: Monacelli.

Halloran, A. M. S., & Magid, J. (2013a). The role of local government in promoting sustainable urban agriculture in Dar es Salaam and Copenhagen. *Geografisk Tidsskrift, 113*(2), 121–132. https://doi.org/10.1080/00167223.2013.848612

Halloran, A., & Magid, J. (2013b). Planning the unplanned: Incorporating agriculture as an urban land use into the Dar es Salaam master plan and beyond. *Environment and Urbanization, 25*(2), 541–558. https://doi.org/10.1177/0956247813500903

Lascoumes, P., & Les Galès, P. (2012). *Sociologia da Ação Pública*. Alagoas: Edufal.

Lipsky, M. (1980). Street-level bureaucracy: dilemmas of the individual in public services. Nova York: Russel Sage Foundation.

Majone, G., Wildawsky, A. (1979) Implementation as Evolution. In: J. L. Pressman, A. Wildawsky (ed): Implementation, Berkeley: University of California Press.

Mansfield, B., & Mendes, W. (2013). Municipal food strategies and integrated approaches to urban agriculture: Exploring three cases from the global north. *International Planning Studies, 18*(1), 37–60.

McIvor, D. W., & Hale, J. (2015). Urban agriculture and the prospects for deep democracy. *Agriculture and Human Values, 32*, 727–741. https://doi.org/10.1007/s10460-015-9588-9

Mény, Y., & Thoenig, J. (1989). *Politiques Publiques*. Presses Universitaires de France.

Mert-Cakal, T., & Miele, M. (2020). 'Workable utopias' for social change through inclusion and empowerment? Community supported agriculture (CSA) in Wales as social innovation. *Agriculture and Human Values, 37*, 1241–1260. https://doi.org/10.1007/s10460-020-10141-6

Milan Urban Food Policy Pact. (2021). Available at: https://www.milanurbanfoodpolicypact.org/. (Last access on 10 Dec 2021).

Morgan, K. (2009). Feeding the city: The challenge of urban food planning. *International Planning Studies*, 14(4), 341–348.

Mougeot, L. (2005). *Agropolis: The Social, Political and Environmental Dimensions of Urban Agriculture*. Earthscan, IDRC.

Muller, P. (2000). L'analyse cognitive des politique publiccues: Vers une sociologie politique de l'action publique. *Revue Française De Science Politique, 50*(2), 189–208.

Muller, P., & Surel, Y. (2008). *Les Politiques Publiques* (7th ed.). Presses Universitaires de France.

Nagib, G. (2020) O espaço da agricultura urbana como ativismo: alternativas e contradições em Paris e São Paulo. Doctoral thesis in Geography. Faculdade de Filosofia, Letras e Ciências Humanas. Universidade de São Paulo.

Nagib, G., & Nakamura, A. (2020). Urban Agriculture in the city of São Paulo: New spatial transformations and ongoing challenges to guarantee the production and consumption of healthy food. *Global Food Security, 26*, 1–7.

Napawan, N. C. (2016). Complexity in urban agriculture: The role of landscape typologies in promoting urban agriculture's growth. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability, 9*(1), 19–38. https://doi.org/10.1080/17549175.2014.950317

Nugent, R. (2000). The impact of urban agriculture on the household and local economies. In: N, Dubbeling M, Gundel S, Sabel Koschella U and de Zeeuw H (eds.) *Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda*: 67–97.

Oliveira, O. P. D., & Hassenteufel, P. (2021). Sociologia política da ação pública: teorias, abordagens e conceitos. Tradução de Escola Nacional de Administração Pública – Brasília: Enap, 2021. 460 p.

Palier, B., & Surel, Y. (2005). Les «trois I» et l'analyse de l'État en action. *Revue française de science politique*, 7–32.

Pothukuchi, K. (2015). Five decades of community food planning in Detroit. *Journal of Planning Education and Research, 35*(4), 419–434.

Prové, C., Dessein, J., & Krom, M. (2016). Taking context into account in urban agriculture governance: Case studies of Warsaw (Poland) and Ghent (Belgium). *Land Use Policy, 56*, 16–26.

Porto de Oliveira, L. C. (2017). Redes, ideias e ação pública na agricultura urbana: São Paulo, Montreal e Toronto. Doctoral thesis in Government and Public Administration. Escola de Administração de Empresas de São Paulo da Fundação Getulio Vargas.

Porto de Oliveira, L. C., Raufflet, E., & Alves, M. A. (2021). Public action and policy implementation: A comparative analysis of Urban Agriculture in three regions of São Paulo. *Local Environment, 26*(6), 719–735. https://doi.org/10.1080/13549839.2021.1916898

Reynolds, R. (2014). On guerrilla gardening: a handbook for gardening without boundaries. Bloomsbury Publishing.

Rolnik, R., & Frúgoli Jr, H. (2001). Reestruturação urbana da metrópole paulistana: a Zona Leste como território de rupturas e permanências. *Cadernos Metrópole*, (6), 43–66.

Sabatier, P., & Mazmanian, D. (1980). The implementation of public policy: A framework of analysis. *Policy Studies Journal*, *8*(4), 538–560.

São Paulo. (1987). 1983, 1987: Criando o caso para o futuro. Revista da Secretaria de Estado dos Negócios do Interior. São Paulo, dezembro 86/janeiro 87-n-12/1.

Sampa + Rural. (2022). Selos Sampa +Rural. https://sampamaisrural.prefeitura.sp.gov.br/seloSampa. (Last access on 27 Apr 2022).

Sao Paulo. (2021). *Resíduos Orgânicos.* Available at: https://www.prefeitura.sp.gov.br/cidade/secretarias/subprefeituras/amlurb/index.php?p=283430. Accessed 5 July 2021.

Souza, C (2006). Politicas publicas: uma revisão da literatura. Sociologias, Porto Alegre, ano 8, no 16, jul/dez, p. 20–45.

Surel, Y. (1998). Idées, intérêts, institutions dans l'analyse des politiques publiques. *Pouvoirs, 87*, 161–178.

Surel, Y. (2000). The role of cognitive and normative frames in policy-making. *Journal of European Public Policy, 7*(4), 495–512.

Torres-Lima, P., & Rodríguez-Sánchez, L. (2008). Farming Dynamics and Social Capital: A Case Study in the Urban Fringe of Mexico City. *Environment, Development and Sustainability*, *10*, 193–208. https://doi.org/10.1007/s10668-006-9059-y

Thoenig, J. (1995). De l'incertitude en gestion territoriale. *Politiques Et Management Public, 13*(3), 1–27.

Thoenig, J.C. (1997). Política pública y acción pública. Gestión y política pública, vol. VI, núm. 1. 1er semestre de 1997, pp 19-37. http://hdl.handle.net/11651/3185

Thibert, J. (2012). Making local planning work for urban agriculture in the North American context. *Journal of Planning Education and Research, 32*(3), 349–357. https://doi.org/10.1177/0739456X11431692

Trusz, A. R., & Parks-Trusz, S. L. (1981). Comparative education and the new sociologies. *International Review of Education, 27*(4), 497–505. https://doi.org/10.1007/bf00598144

Valdiones, A (2013). Programa da Agricultura Urbana e Periurbana no município de Sao Paulo. Dissertação apresentada ao programa de Pos-graduaçao em Mudança Social e Participação Política da escola de Artes, Ciências e Humanidade da USP.

Vandenberghe, F. (2013). What's critical about critical realism?: essays in reconstructive social theory. Routledge.

Veja São Paulo. (2021). Selos valorizam agricultores paulistanos e casas que usam insumos produzidos por eles. Available at : https://vejasp.abril.com.br/blog/arnaldo-lorencato/sampa-mais-rural/. (Last access on 13 Dec 2021).

Wegmuller, F., & Duchemin, E. (2010). L'agriculture urbaine: Un outil mutldimensionnel pour le développement des quartiers. *Vertigo, 10*(2), 1–60. https://doi.org/10.4000/vertigo.10436

Zeeuw, H. D., Guendel, S., & Waibel, H. (2000). The integration of agriculture in urban policies. In: Bakker N, Dubbeling M, Guendel U, Sabel Koschella H. de Zeeuw (Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda), pp. 161–180.

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