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Cultivating Urban Agriculture Policies: Local Government Entrepreneurs' Strategies in Three Brazilian Cities

Marcela Alonso Ferreira ^{1,2}, Giselle Mendonça Abreu ³, Camila Nastari Fernandes ⁴,
Vitória Leão ⁵, Jaqueline Ferreira ⁶, and Juliana Luiz ⁶

¹ Centre for European Studies and Comparative Politics (CEE), Sciences Po, France

² Urban School, Sciences Po, France

³ Department of City and Regional Planning, University of California – Berkeley, USA

⁴ Department of Social Sciences, Federal University of São Paulo (Unifesp), Brazil

⁵ Graduate Program in Social Sciences in Development, Agriculture, and Society (CPDA), Federal Rural University of Rio de Janeiro (UFRRJ), Brazil

⁶ Instituto Escolhas, Brazil

Correspondence: Marcela Alonso Ferreira (marcela.alonsoferreira@sciencespo.fr)

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Abstract

Urban agriculture (UA) is increasingly recognized in policy and academic discussions for its potential to promote sustainable food systems and reduce food insecurity. Due to their proximity to citizens, local governments are well-positioned to advance these initiatives. However, the factors that drive governments in densely populated cities to develop UA policies remain relatively understudied, especially in the Global South. To address this gap, we employ a comparative case study approach based on key informant interviews and documents to examine how local government actors pursue UA policies in the Brazilian cities of Recife, Rio de Janeiro, and Curitiba. We find that certain municipal bureaucrats act as “policy entrepreneurs,” emerging as pivotal figures in creating, maintaining, and adapting municipal UA policies in Brazilian cities. These policy entrepreneurs use a number of strategies to advance their policy preferences, secure resources, and legitimize their actions within the public administration. These approaches include collaborating with civil society, forging partnerships within and outside of government, framing their proposals within international policy guidelines, and leveraging media coverage and external recognition. In doing so, policy entrepreneurs shape UA policies by introducing new programs, making them resilient to changes related to electoral turnover, and diversifying initiatives from direct government support for gardeners to, for example, incorporating UA into urban planning regulations. This article thus provides valuable insights for policymakers and underscores the crucial role of local government bureaucrats, particularly those acting as policy entrepreneurs, in shaping policies that contribute to making cities sustainable.

Keywords

food policy; local government; policy entrepreneurship; street-level bureaucracy; urban agriculture

1. Introduction

Over the past two decades, there has been a growing awareness of the importance of considering food systems in urban planning (Morgan, 2013). This recognition is reflected in international commitments such as the UN's Sustainable Development Goals and the New Urban Agenda, which identify cities as key enablers for promoting sustainable and resilient food systems. Since the 2010s, urban food policy networks have also emerged, connecting over 500 cities worldwide (Moragues-Faus, 2021) and highlighting the potential of urban agriculture (UA) to alleviate the harms of poverty and food insecurity and to contribute to more sustainable urban food systems. While the general praise of UA may overlook instances where it reinforces inequalities, this practice can critically contribute to urban food security (Horst et al., 2017).

Local governments are well-positioned to promote UA initiatives due to their proximity to citizens. They can enable, regulate, and support the growing of fruits and vegetables in urban areas (Halvey et al., 2021). Policies often focus on vegetable gardens, including those in households, schools, and communities (Marini et al., 2023), and may extend to animal husbandry and variations of garden typologies (e.g., rooftop and vertical gardens). Common strategies include providing tax incentives and financial support and removing restrictive regulations that hinder UA activities in urban areas (Horst et al., 2017). Community coordination is critical, as civil society or voluntary neighborhood groups typically initiate and sustain UA practices.

UA community practices are commonly motivated by food security concerns. In Africa, Asia, and Latin America, the literature suggests that limited access to land, unemployment, food insecurity, and household savings are important drivers of UA initiatives (Di Fiore et al., 2021; Simatele & Binns, 2008). In Europe, North America, and Oceania, UA's identified determinants are broader, including concerns about education, psychological health, social cohesion, and ecological issues (Di Fiore et al., 2021). While previous studies have explored why communities and civil society engage in UA, less is known about why governments promote UA through public policy (Cardoso et al., 2022; Daher et al., 2023). Thus, the factors shaping UA policies, especially in densely populated cities of the Global South, remain relatively understudied.

This article aims to fill this knowledge gap on the drivers of local UA policy by focusing on actors who can have a significant impact: policy entrepreneurs (PEs). PEs are individuals or collectives who exploit windows of opportunity to advance their policy preferences and, as such, are typically viewed as critical agents of change (Kingdon, 1984; Petridou & Mintrom, 2021). Previous research has shown that PEs are central to changes in urban policy, shifting urban planning goals (Capano & Galanti, 2021), promoting infrastructure (Ramírez et al., 2023), or land redevelopment projects (Artioli, 2023). These actors introduce new ways of framing problems and solutions, build coalitions, and mediate collective action problems.

The last few years have seen an increase in scholarship on the role of policy entrepreneurship in shaping urban food policies. Giambartolomei et al. (2021) identified PEs as key to advancing transitions in a European context by leading place-based food strategies. Another research team found that permanent staff acting as PEs in Milan (Italy) were pivotal in establishing the city's well-known urban food policy (Minotti et al., 2022).

In Latin America, researchers underscore the prominent role of civil society actors in advancing UA, including by interacting with government actors. In São Paulo, Brazil, civil society ideas and networks rendered UA visible to policymakers (de Oliveira et al., 2022). Additionally, bureaucrats with close ties to civil society were engaged in activism within the government, ultimately contributing to the gradual institutionalization of urban and peri-urban agriculture policy (Couri, 2021). These findings suggest that bureaucrats can play a critical role in UA policy.

This article examines how bureaucrats acting as PEs shape UA policy in three large Brazilian cities: Recife, Rio de Janeiro, and Curitiba. We explore PEs' strategies, particularly their engagement with civil society, international commitments, local politics, and urban planning discussions, to promote UA at different policy stages. In Recife, PEs *pioneered* an entirely new policy, establishing an agency dedicated to leading UA initiatives and coordinating intersectoral partnerships, community engagement, and a plan aligned with international guidelines. In Rio de Janeiro, beyond policy creation, a PE critically contributed to *sustaining* the policy over time, actively ensuring its continuity through political transitions. In Curitiba, PEs aimed to *expand* the UA policy beyond direct support to vegetable gardens, aspiring to incorporate UA into urban planning regulations. We, therefore, argue that bureaucrats acting as PEs can play a pivotal role in *creating*, *maintaining*, and *adapting* UA policies over time.

While the significance of creating new policies is clear, ensuring policy resilience is often overlooked. Contrary to the common assumption that once initiated, policies simply endure, the reality is frequently quite different. Policies are sometimes abandoned or remain inactive, resurfacing under ideologically compatible political terms (Leão Marques, 2023). Policy resilience is, therefore, not automatic but something that is actively pursued. In Rio de Janeiro's case, this article examines PEs' involvement in pursuing such resilience. Although Curitiba's UA policy has been consistent over time, this is not specific to UA. Instead, various urban policies in Curitiba have been resilient due to political continuity over several decades (Klink & Denaldi, 2012). More unique, in this case, is the current expansion of arenas for UA policy within the municipality, particularly urban planning, as land-use regulations may hinder or enhance UA (Horst et al., 2017).

1.1. Materials and Methods

The selection of Recife, Rio de Janeiro, and Curitiba as case studies was informed by a recent report overviewing municipal UA policies in Brazil (Instituto Escolhas, 2022). These cities were chosen for their substantial size and distinct phases of policy development, offering a rich comparative basis. Recife, Rio de Janeiro, and Curitiba have populations of approximately 1.5 million, 6.2 million, and 1.8 million, and areas of 219 km², 1,200 km², and 435 km², respectively. Each case exemplifies a particular stage of UA policy: Recife pioneered a new policy; Rio de Janeiro sustained a policy over time; and Curitiba expands UA into new government sectors.

The study uses empirical data from interviews and documents. In total, 28 semi-structured interviews were conducted with key informants from Recife (11), Rio de Janeiro (7), and Curitiba (10) between April 2022 and January 2024. Respondents included bureaucrats, experts, and civil society actors involved with urban planning, agriculture, and food security policies. Twenty-five interviews were conducted virtually and three in person, averaging 60 minutes. Questions prompted respondents to discuss their involvement with UA and

their views on the specific UA policy, including its history, characteristics, and challenges, depending on their expertise. Policy entrepreneurship emerged as a relevant theme during the initial thematic analysis. Additional interviews were then conducted with respondents identified as PEs, who were prompted to detail their strategies. Interviews were recorded and transcribed. Transcripts were then analyzed using the analytical framework discussed below and informed all the findings presented in Section 4 unless otherwise noted. Supplementary data were sourced from academic literature, documents—especially legislation, reports, and strategic plans—and newspaper articles to corroborate interviewees’ statements and inform our understanding of each policy’s trajectory. The following sections present the analytical framework (Section 2), describe the UA policies (Section 3), examine PEs’ strategies in each case (Section 4), and discuss the results (Section 5). The conclusion ensues.

2. Bureaucrats as PEs

Public policy literature defines PEs as individual or collective actors from the public, private, or third sectors who invest resources, such as time, effort, knowledge, or finances, to promote or prevent significant policy reforms (Frisch Aviram et al., 2020). They are willing to seize opportunities and take risks to shape the policymaking process (Kingdon, 1984) and drive changes in public policy at any stage. PEs thus bear the initial costs of collective action.

Prior research identified PEs’ traits and strategies to promote policy change. Frisch Aviram et al. (2020) underscore three main characteristics: social acuity, persuasiveness, and the ability to build trust. PEs know the social and political contexts where they intervene, deploy persuasive discourses, and build trust networks to promote their propositions. They may frame the problems, offer solutions, seek specific venues for decision-making, forge partnerships, or use media coverage and civic engagement to advance their policy preferences (Frisch Aviram et al., 2020).

Recent scholarship has emphasized the role of street-level bureaucrats as PEs (Arnold, 2015; Cohen & Aviram, 2021; Edri-Peer et al., 2023). Unlike other PEs who are typically part of the elite, street-level bureaucrats are government agents (or working on their behalf) at the frontline of public service, implementing public policy and interacting directly with citizens (Lipsky, 1980). Their stable position allows them to develop leadership over extended periods, draw upon other experiences to develop propositions for their policy sector, and seek legitimacy by engaging superiors (Edri-Peer et al., 2023).

Some public policies, such as urban planning, are fully undertaken by local governments in Brazil. As they have a shorter implementation chain, bureaucrats often act as both implementers and policymakers (Alonso Ferreira, 2023, p. 10). This is also the case for municipal UA policies. Therefore, to analyze these cases, we consider the strategies identified by the literature on PEs (Frisch Aviram et al., 2020) and street-level PEs (Edri-Peer et al., 2023). We have combined these strategies (Table 1), organizing them into similar categories and incorporating findings from this study.

Table 1. PEs' strategies.

Category	Strategy
Policy design & adaptation	<ul style="list-style-type: none"> Defining the problem in a compelling way¹ Proposing a solution to the problem¹ Planning a long-term strategy¹ Taking small, incremental actions to achieve a larger goal¹ Doing anchor work to secure the policy through formal rules¹ Participating in policy evaluation and revision¹
Exploration of opportunities	<ul style="list-style-type: none"> Searching for the appropriate arena/venue for decision-making¹ Taking risks and exposing oneself¹ Prioritizing the core issue and accommodating differences¹ Demonstrating the operationality of the policy proposal¹
Communication & influence	<ul style="list-style-type: none"> Using symbols to engage the public¹ Using media coverage to promote policy¹ Strategically disseminating information to specific actors¹ Promoting the policy to various audiences¹ Seeking for legitimacy from superiors in the organization² and peers³ Linking and diffusing the policy to national and international commitments³
Engagement & partnerships	<ul style="list-style-type: none"> Acting as team leader for the policy¹ Providing continuous leadership over extended periods² Creating partnerships with different sectors or organizations¹ Networking in government with politicians and bureaucrats¹ Networking out of government with private, public, and third sector actors¹ Mobilizing citizens to be engaged in the policy¹ Participating in political negotiations¹ Leveraging knowledge and experience from others within the organization² or themselves³

Sources: Adapted from ¹ Frisch Aviram et al. (2020); ² Edri-Peer et al. (2023); ³ findings from this study.

3. UA Policies

UA is widespread in Brazil (Santandreu & Lovo, 2007). Previous research has highlighted its multiple functions, particularly in promoting food security and nutrition (de Souza et al., 2019), collective and environmental health (Camelo et al., 2023), and political and social engagement (Biazoti & Sorrentino, 2022). The integration of UA into federal food and nutrition security policy dates back to the early 2000s with the *Fome Zero* program (de Almeida, 2016, pp. 93–96). More recently, the national relevance of UA was reinforced with the approval of the National Urban and Peri-urban Agriculture Policy Bill in July 2024. Despite this recent national focus, Brazilian local governments arguably remain leaders in UA public policies, given the diversity of their initiatives (Instituto Escolhas, 2022). The following section overviews these policies in the selected municipalities: Recife, Rio de Janeiro, and Curitiba.

3.1. Recife

Since 2021, the Recife municipality has been actively promoting UA through its newly created Executive Department of Urban Agriculture, attached to the urban planning department. Although relatively young compared to other municipalities, Recife's UA initiatives encompass multiple partnerships and support for different production structures (Instituto Escolhas, 2022). The city is expanding vegetable gardens by providing production inputs and training. Besides, it develops education and capacity-building initiatives that emphasize food security, guided by agroecology and solidarity economy principles (Tângari & Araujo, 2023, p. 150). The city values traditional and community knowledge, incentivizing, for example, vegetable gardens for growing sacred plants in *terreiros* (places where Afro-Brazilian religious ceremonies are held) and composting projects led by grassroots youth collectives, considered replicable to other communities. Recife is developing its own production structure, the Agroecological Ranch, for vegetable, seed, and input production.

The municipality coordinates or monitors at least six types of urban gardens, including eight Community Gardens on private or public land, Productive Backyards (400 units mainly in low-income households), School Gardens (42 units in municipal and affiliated educational centers), and Institutional Gardens in social assistance and health public facilities (Instituto Escolhas, 2022). In partnership with the state government, Gardens Everywhere has about 13 units in community centers, hospitals, parks, and prisons. The Non-Governmental Institutional Gardens strand involves nine gardens located in philanthropic facilities and commercial centers. All these gardens serve various purposes, from self-consumption of gardeners, staff, and communities to pedagogical, restorative, and medicinal uses.

Besides collaborating with partners and providing capacity-building through training, the municipality supports the implementation of new structures, such as nurseries, urban orchards, herbal spaces, and seed planting areas. It also registers requests for new community gardens. To support existing structures, the municipality distributes seeds, seedlings, fertilizer, and pruning materials, provides logistical support, and organizes garden maintenance task forces. The city promotes composting by strengthening the selective collection of organic waste and operating a composting yard. Furthermore, the municipality develops social engagement activities, such as public consultations for the Agroecology Plan and community efforts to organize gardens and meetings (Secretaria Executiva de Agricultura Urbana, 2021).

3.2. Rio de Janeiro

Hortas Cariocas, established in 2006, aims to implement and support vegetable gardens in public schools and low-income communities. Half of the production in community gardens must be donated locally, while gardeners can sell the other half (Instituto Escolhas, 2022). School gardens provide produce exclusively for student meals and pedagogical activities. The municipality offers a monthly stipend to participating gardeners, coordinators, and community outreach agents. In 2023, stipends ranged from BRL 500 for the former to BRL 1,000 for the latter (USD 100 and USD 200, or 38% and 76% of the minimum wage; Instituto Escolhas, 2023b). Additionally, *Hortas Cariocas* provides technical assistance, tools, and inputs like organic compost and seeds. Vegetable gardens may integrate the program upon request from schools, neighborhood associations, or community collectives. The *Hortas Cariocas* team assesses the feasibility of the proposed site(s), determines the number of participants, and assigns coordinators for larger gardens.

The number of gardens has increased significantly. In 2022, *Hortas Cariocas* supported 27 school gardens and 29 community gardens, sponsoring 277 people producing vegetables, fruits, and leafy greens on a total of 25 hectares (Instituto Escolhas, 2022), with 119 men and 72 women in community gardens and 40 men and 45 women in school gardens (Instituto Escolhas, 2023b). Despite its size, the program represents a small fraction of the city's horticultural and agroforestry area of 1,525 hectares (Instituto Escolhas, 2023a). Moreover, the metropolitan region boasts a strong network of civil society organizations dedicated to UA (see Batitucci et al., 2019).

Rio de Janeiro had previous UA policies, such as the *Rio Hortas* project, initiated in 1992 and focused on capacity building and training (Rego, 2014). The program ended after the civil servant who coordinated it retired, and the municipality withdrew support (Beck, 2018). Some *Rio Hortas* gardens were then taken over by *Hortas Cariocas* in 2006. The same happened to other community gardens that had lost support from the state government.

Hortas Cariocas' community gardens are located on public land, usually in areas considered unsuitable for occupation, such as those under power transmission lines, prone to landslides and other disasters, or occupied by garbage dumps (Laursen de Souza, 2022). The Manguinhos community garden, considered the largest in Latin America, was implemented in a former drug trafficking and consumption area (O'Reilly, 2014). The presence of criminal groups, militias, and violent conflict in low-income neighborhoods in Rio de Janeiro (Hirata et al., 2022) affects daily activities in community gardens. In one extreme case, gangs temporarily occupied part of the Manguinhos garden and began construction. The buildings were later demolished, and the garden was rebuilt.

3.3. Curitiba

Curitiba has a long history of policies supporting urban and peri-urban agriculture (Instituto Escolhas, 2023b). It started in 1986 with the *Lavoura* Program, emphasizing large-scale cultivation in the periphery; *Nosso Quintal* Program was added in 1989, supporting small-scale production. Originally implemented by the Municipal Department of Food Supply, now known as the Municipal Department of Food and Nutritional Security, these programs evolved to include gardens in schools and other institutions. In 2018, they were restructured into three categories: Community Gardens, School Gardens, and Institutional Gardens, overseen by the Urban Agriculture unit within the Municipal Department of Food and Nutritional Security. The current policy offers technical assistance, production inputs (e.g., organic fertilizer, seedlings), and soil preparation for vegetable gardens. While initial support had an indefinite duration, recent revisions limited it to one year (Instituto Escolhas, 2023b). Additionally, the policy includes a city-owned Urban Farm inaugurated in 2020, providing beds and crops for educational purposes and facilities for workshops and training sessions. Funding from the Curitiba Food Supply Fund, established in 1990, ensures continuity.

In 2023, 39 vegetable gardens were supported, and 145 had been implemented, covering 15 hectares, with community gardens accounting for 82% of the total assisted area (Instituto Escolhas, 2023b). To qualify for support, a group of at least 10 people must apply and undergo a feasibility assessment. Typically, community gardens are established on unused public land, identified and proposed by the gardening community, often under power transmission lines. Participants, mostly low-income retirees in their late 50s from peripheral areas with prior ties to agriculture in the hinterland of Paraná, grow leafy greens and vegetables primarily for

personal consumption or distribution to relatives and friends; only a small fraction is sold locally (Instituto Escolhas, 2023b).

UA practices in Curitiba extend beyond community gardeners supported by municipal programs. In addition to assisted farmers, Feniman (2014) and Araujo and Fuck (2022) identified two other important groups: politically engaged gardeners in middle- to high-income neighborhoods and remaining family or vernacular farmers in the green belt around the urban area. A recent study confirms urban and peri-urban agriculture extending well beyond assisted gardens, with over 1,000 mapped agricultural sites totaling 728 hectares (Instituto Escolhas, 2023a).

The Municipal Department of Food and Nutritional Security staff argue that supporting UA enhances healthy food accessibility in peripheries, hence the focus on low-income gardeners. While addressing food security, municipal servants recognize broader benefits, such as environmental and educational awareness and preventing undesirable uses. Although multifaceted, the UA agenda has traditionally been confined to the food and nutrition security sector. A recent movement seeks to integrate it into urban planning, expanding UA policies beyond direct garden support. Current debates within the urban planning department aim to incorporate UA into zoning laws and master plans. This article focuses on this movement in the analysis of PEs in Curitiba.

4. UA Policy Entrepreneurship

4.1. Recife

The establishment of Recife's UA policy was spearheaded by three bureaucrats from the urban policy, food security, and family agriculture sectors acting as PEs. This triad comprised two statutory civil servants (from the municipal and state governments) and an appointed employee. They came together through the municipal Food Security Council and identified the need to coordinate their sectors, playing a pivotal role in *framing the problem* from a multidimensional perspective. In 2017, they proposed creating a division within the government dedicated to UA, but the idea did not gain traction with decision-makers. When a new mayor, more attuned to the issue, took office in 2021, he embraced the proposal and supported the creation of the Executive Department of Urban Agriculture.

In 2020, the PEs adopted a participatory approach involving civil society organizations and other administration sectors to develop a *medium-term strategy*, the Agroecological Municipal Plan. They included the plan's four-year objectives in the Strategic Plan of Recife (2021–2024) to *anchor and secure the policy* into broader public administration strategies. Additionally, annual *policy evaluations* of the actions of the Executive Department of Urban Agriculture were conducted to review goals over time.

Recife's UA policy relies on *partnerships* cultivated with diverse social actors. PEs *mobilized citizens* by expanding school gardens and providing training to teachers and staff. Similarly, PEs *collaborated* with collectives, philanthropic entities, religious groups, and associations in planting vegetable gardens, which was crucial to expanding UA. The Executive Department of Urban Agriculture then contributed with training on seed cultivation, composting, and agroecology practices.

PEs largely *networked within government* to forge cross-sectoral partnerships, such as with environment and sustainability, sanitation, urban innovation, health, social development, and human rights sectors. These collaborations have been key in implementing new gardens in public facilities, providing technical assistance, and producing organic compost. PEs promoted other collaborations with Pernambuco state agencies, such as the Agronomic Institute of Pernambuco and the Agricultural Defense and Inspection Agency, to encourage healthier food consumption and monitor pesticide use.

The engagement of the PEs with *national and international platforms* has been fundamental for gaining wider recognition within the government. Participation in the Milan Urban Food Policy Pact, the ICLEI City Food program, and the Urban Laboratory for Food Public Policies, where Recife is a mentor city, has been pivotal for legitimization among peers and colleagues in planning and other areas.

PEs are particularly active in *exploring opportunities* to advance their agenda in Recife. For example, they focused on *gathering political support* from the new mayor and raising awareness about the UA policy. PEs are also starting a dialogue with the urban planning authority to consider fostering UA through land use regulations. Otherwise, the funding strategy indicates their willingness to *take risks*: continuous municipal funding is not guaranteed, so the PEs secured funding through other temporary sources, such as amendments negotiated with legislators. Currently, the UA policy favors building and expanding partnerships within government, civil society engagement, and environmental and nutritional education over increasing urban food production. However, the link with the food security sector is fragile since the third PE recently left the government in 2022. The other two PEs continue to pursue the integration of UA and the agroecology agenda into other policy sectors within the municipality.

4.2. Rio de Janeiro

Hortas Cariocas was initiated by a municipal civil servant who conceived, managed, and coordinated the program implementation for 16 years until 2022. The PE developed the program based on prior experience with a federally funded pilot project for food production and agronomic training at the Municipal Department of Social Assistance. Returning to the Municipal Department of Environment, the PE presented a similar community garden program proposal to his superiors, who approved it in 2006. The PE *framed two problems* overlapping in low-income neighborhoods: (a) misuse of vacant land prone to disasters or unsuitable for construction and (b) financial inaccessibility of organic produce. The *proposed solution* was to occupy those areas with vegetable gardens, thus addressing both issues. *Drawing from his previous experience* with environmental conservation programs in low-income communities, the PE suggested adopting the same remunerated task force scheme to encourage the gardeners' continued engagement.

The PE *took risks* in implementing a new program, as experimental initiatives may lack a formal basis and rely on unconsolidated legal interpretations. To mitigate these risks, the PE undertook *anchor work* to strengthen the legal foundation of a key feature of *Hortas Cariocas*: the remuneration model. In 2017, the PE temporarily assumed another position within the Municipal Department of Environment, coordinating the environmental conservation programs. He then sought to re-establish the same remunerated task force model for various programs and engaged in lengthy discussions with the Municipal Attorney's Office to establish a solid legal basis. As a result, a resolution was published in 2018 that applied to the UA program, which he soon returned to lead.

The program underwent *adaptations*. It included vegetable gardens in schools to enhance nutrition and education, as requested by the secretary who first approved the program. The PE involved *direct and indirect beneficiaries* in implementation: School boards and neighborhood associations appoint the gardeners for school and community gardens. The PE initially worked individually, eventually securing a small team of contractors and civil servants. *Consistency* in the position allowed him to learn from experience and make adjustments, such as prioritizing requests for existing community gardens, which helped reduce discontinuation rates.

The PE also established *partnerships*, leveraging his *networks inside and outside government*. For instance, he partnered with the local waste management authority to distribute organic compost to gardeners and with the Brazilian Agricultural Research Corporation for an aquaponics pilot project. He was also responsive to invitations for civil society events and research. Facilitated by the PE's entourage, *Hortas Cariocas* received substantial *media coverage*, ranging from community-based to international news outlets. The program has received notable recognition: a "Sustainable Entrepreneur" award for the PE in 2015, a special mention for the program from the Milan Urban Food Policy Pact in 2019, and recognition as an exemplary initiative aligned with the UN's Sustainable Development Goals in 2022. Linking *Hortas Cariocas* to *national and international policy agendas* served as a crucial means of *legitimizing the policy*. Moreover, the PE was in constant dialogue with officials seeking to establish similar UA initiatives in other municipalities.

Political shifts posed challenges to policy continuity. With each mayoral term, the political leadership of the department changed, and the PE sought to persuade new supervisors to maintain policy implementation. He mobilized media coverage and international recognition and *compiled data* on beneficiary gardeners and food production to *illustrate policy outcomes* as resources for *legitimation*. Also, the PE engaged in *political negotiations* by highlighting the electoral benefits to politicians of maintaining the program and by collaborating with municipal councilors requesting community gardens in their constituencies' territories. The PE sought to partially accommodate their interests while preventing their influence, for example, in the nomination of stipend beneficiaries. In 2023, with a change in leadership at the Department of Environment, the PE was withdrawn from coordinating *Hortas Cariocas*. The new leaders reported continuing and expanding the program with some adjustments.

4.3. Curitiba

The expansion of the UA agenda into urban planning is spearheaded by two civil servants acting as PEs at the Institute of Research and Urban Planning from Curitiba (IPPUC, acronym in Portuguese). Their objective is not a shift in policy arenas but rather an *exploration of the appropriate venue* for incorporating policies that may address a broader set of UA practices, thus moving beyond direct support and into urban regulatory tools. While their work as PEs within the government is recent, both have extensive backgrounds in UA practices and policies.

One PE, a nutritionist by training, worked at the Department of Education with the school lunch policy, where she became involved with family and urban farmers. During this period, she attended public hearings about the Urban Agriculture Law, which was approved in 2018. Her transition to the Department of Food and Nutritional Security then broadened her involvement in longstanding food policies in Curitiba. *Leveraging her knowledge* of government machinery and, crucially, her understanding of UA policy stakeholders would later be key to

networking in government and garnering support from public servants. After solidifying her expertise in UA practices and policies in her master's thesis, she joined IPPUC's socioeconomic analysis team.

The second PE was fully engaged in activism and civil society initiatives supporting UA before becoming a public servant at IPPUC. He collaborated with a collective of urban gardeners and was part of a broader UA coalition that contributed to formulating the Urban Agriculture Law. Like the first PE, he also extended his expertise in UA through academic research. Since joining IPPUC's team in 2021, he transitioned from being a PE for UA outside the municipality to an internal role.

Despite their distinct trajectories, these PEs united in advocating for the integration of UA into planning policies. Their main challenge has been *framing UA as an "urban planning" issue* to persuade superiors and colleagues at IPPUC—an institute focused on producing data and formulating urban plans—that this matter required their attention. One of their strategies has been to *put forward a more expansive view* of UA, leveraging their own knowledge of UA territories—the first PE as someone who met frequently with farmers as a street-level bureaucrat, the second as a community gardener himself—to move beyond the narrow preconception that only government-assisted community gardens require support from UA policies. They have also *sought legitimacy in international urban agendas*, notably those put forth by the UN and C40 Cities, and *in influential people in the field*, such as a well-known figure who had been involved in Curitiba's planning policies for decades.

They have successfully garnered support among superiors and colleagues, but integrating the UA agenda into urban planning is viewed as a *long-term process*. Initiating a robust research trajectory, they *partnered with an independent research organization to generate data* on current and potential UA practices. This partnership facilitated workshops attended by colleagues and superiors. With assistance from the UN's Environmental Program, they have also partnered with other departments to propose productive uses for environmentally degraded and protected land. In addition, they aim to provide specific *inputs during the upcoming revision of the master plan and zoning laws*. For example, they plan to include UA as a use that fulfills the "social function of urban property," a requirement of Brazilian urban regulations. In the meantime, their day-to-day strategy consists of exploring opportunities to raise awareness about UA by *infiltrating various projects*, such as the city's economic sector plan or the metropolitan urban development plan. Recognizing that creating a separate policy for UA within IPPUC would not make sense, they emphasize its piecemeal inclusion in existing projects and plans. They have thus *become reference points* on UA, providing input to a variety of IPPUC's initiatives.

5. Discussion

The case studies show that bureaucrats acting as PEs significantly contribute to creating new UA policies, maintaining existing policies during periods of political instability, and integrating agriculture into other policy sectors, such as urban planning. They achieve this through different strategies, outlined in Table 2. In Recife, networking was essential for PEs to build a policy from scratch. The municipality's recent policy resulted from PEs collaborating with civil society and external organizations. Once the policy was approved, they networked within the public administration, using the Food Security Council as a key venue. They adopted a multi-stakeholder approach to strengthen community engagement, partnerships, and communication. In Rio de Janeiro, external recognition and political negotiation contributed to continuing the UA policy for years. The PE focused on scaling up actions on the ground, demonstrating food production

Table 2. PEs' strategies in Recife, Rio de Janeiro, and Curitiba.

Category	Strategy	Recife	Rio de Janeiro	Curitiba
Policy design & adaptation	Problem definition ¹	Framing UA as an intersectoral issue	Framing problem of organic produce cost and land misuse in low-income neighborhoods	Framing UA as an “urban planning” issue Presenting a more expansive view of UA practices in need of support
	Solution proposition ¹	Creating dedicated intersectoral department	Coupling the problem with UA as the solution Adapting existing policy instruments to remunerate gardeners	
	Long-term strategy ¹	Developing an agroecology plan with four-year targets		Setting a long-term research agenda connected to revision of urban regulations
	Small, incremental actions ¹		Incremental growth in the number of vegetable gardens	Raising the issue of UA in various planning initiatives
	Anchor work ¹	Incorporating UA goals into Municipal Strategic Plan	Working with municipal attorneys to establish legal foundation for the program's remuneration	Incorporating UA considerations into master plan and zoning laws
	Policy evaluation ¹	Assessing and disclosing achievements annually	Assessing outputs regularly	
Exploration of opportunities	Venue shopping ¹			Searching for alternative arenas to address a broader set of UA practices
	Taking risks ¹	Relying on non-continuous funding	Starting implementation despite incomplete formal regulations	
	Accommodating differences ¹	Adopting an integrative approach, engaging stakeholders, and emphasizing food education	Expanding the scope of UA program to school gardens	
	Operationality demonstration ¹		Developing the program after a pilot project	Promoting workshops with experts to discuss relevance of UA to urban planning

Table 2. (Cont.) PEs' strategies in Recife, Rio de Janeiro, and Curitiba.

Category	Strategy	Recife	Rio de Janeiro	Curitiba
Communication & influence	Symbols ¹	Communication in composting campaigns		
	Media coverage ¹	Disseminating actions through municipality's media, social networks, and press	Gaining local and international media exposure	
	Information dissemination ¹			Presenting research data on UA internally
	Various audiences ¹	Promoting civic, educational, and technical engagement from different types of UA		
	Legitimacy from superiors ² and peers ³	Discussing UA agenda with urban planning peers	Using output data to justify program maintenance Using prizes and media coverage to leverage support from superiors	Convincing superiors and colleagues to advance topic internally
International commitments ³	Signing the Milan Urban Food Policy Pact to bring visibility to the issue internally Participating in the Urban Laboratory for Food Public Policies and ICLEI City Food platforms	Aligning UA policy with UN's Sustainable Development Goals and national and state policy frameworks Recognition through national and international awards	Seeking support for framing in UN and C40 guidelines	

Table 2. (Cont.) PEs' strategies in Recife, Rio de Janeiro, and Curitiba.

Category	Strategy	Recife	Rio de Janeiro	Curitiba
Engagement & partnerships	Policy leadership ¹	Coordinating actions, leading partnerships, and seeking solutions with other stakeholders	Gradually securing a team of external staff and civil servants	Leading partnerships and intersectoral dialogue
	Continuous leadership ²		16 years of leadership	Being internal reference points on UA
	Partnerships with different sectors or organizations ¹	Partnering with state and federal entities for capacity-building	Collaborating with waste management and research authorities	Partnering with independent research institutions to develop data
	Networking in government ¹	Building collaborative ties with various departments	Leveraging personal networks to establish a partnership for compost distribution and pilot projects	Leveraging personal networks to gather support from other public servants/departments
	Networking out of government ¹	Formalizing existing partnerships with philanthropic, religious, and social organizations	Responsiveness to event and partnership proposals of academics and civil society	
	Citizen mobilization ¹	Offering training and encouraging participation in street markets to distribute UA production	Engaging school boards and neighborhood associations in gardeners' appointments	
	Political negotiations ¹	Seeking support from incoming mayor	Highlighting electoral benefits, collaborating with councilors	
	Knowledge from others ² or themselves ³	Supporting collective efforts to replicate successful UA in other locations	Integrating lessons learned and refining the participant selection process	Leveraging their backgrounds in UA to inform and persuade others

Sources: Adapted from ¹ Frisch Aviram et al. (2020); ² Edri-Peer et al. (2023); ³ findings from this study.

results in low-income communities, and he negotiated with politicians when they tried to interfere with the policy. This case had the most entrepreneurial strategies, likely due to the PE's long-term involvement. Conversely, incremental strategies sought to expand and integrate UA into urban planning in Curitiba. The city has a long-term and relatively robust UA policy led by the Department of Food and Nutrition Security in a more stable political scenario. PEs seek to integrate the agenda into various urban planning initiatives rather than creating a separate policy. They produce strategic information in partnership with external research organizations and serve as internal reference points, leveraging their trajectories.

This study makes two significant contributions to urban food policy and policy entrepreneurship literature. First, it identifies mechanisms for urban food policymaking in Brazilian cities similar to those found in Europe. Past research identified PEs as critical drivers of urban food policy (Giambartolomei et al., 2021; Minotti et al., 2022). Our study adds that bureaucrats acting as PEs may be particularly relevant for expanding and maintaining these policies, given their experience and knowledge of government dynamics. Expansion processes, such as the one documented here, are particularly relevant for understanding how food policy can achieve its potential transversality across policy sectors. The active maintenance sought by PEs, in turn, contributes to understanding how policy can be entrenched in contexts marked by political discontinuity.

Second, our findings showcase most strategies outlined by the policy entrepreneurship literature, with three additional aspects standing out. Bureaucrats acting as PEs sought validation from superiors in their organizations, as argued by Edri-Peer et al. (2023), but also from their peers. Bureaucracies often resist the introduction of new ideas into well-established policies. Therefore, civil servants may seek legitimacy from their colleagues to garner broader support for the changes they advocate. Additionally, our cases demonstrated that PEs utilized knowledge from others (Arnold, 2015) but primarily relied on their own. PEs' long-term engagement with the issue allows them to learn from their experience and advocate for policy changes. Furthermore, anchoring proposals in global commitments was a consistent strategy across cases. PEs sought to gain credibility by demonstrating their alignment with international guidelines, with awards and recognition further reinforcing this strategy. Interestingly, this strategy contributes to developing a new policy, safeguarding an existing policy from discontinuity threats, and integrating it into a different sector. This finding expands prior research on urban food policy, identifying how international commitments propel policy change when mobilized by local entrepreneurs (Minotti et al., 2022).

This study presents significant policy implications, emphasizing the importance of strengthening networks between government and civil society, as well as within government. Creating spaces for participation and exchange of experiences can facilitate policy change. The findings also suggest that the dissemination of international policy commitments is more likely to succeed when local actors embrace them as part of their own projects. However, these results may not apply universally and are influenced by specific conditions. Most bureaucrats acting as PEs in this study were statutory bureaucrats. While they may not remain in the same position their entire careers, they have a long-term commitment to the public sector. Therefore, bureaucrats acting as PEs are more likely to be found in governments where the civil service is tenured, or at least partially, as in Brazil. Additionally, PEs were all similarly embedded in civil society, which is an enduring feature in some Brazilian cities (Leão Marques, 2023), but not necessarily in other Global South cities (Bradlow, 2024). Future research could explore alternative factors influencing UA policies in this context and examine their long-term development.

6. Conclusion

This article examined how bureaucrats acting as PEs shape UA policies in three Brazilian cities. The comparative case study considered the strategies employed by them in relation to policy trajectories and processes of policy formation, maintenance, and adaptation. We conclude that bureaucrats' entrepreneurial actions sought to introduce new UA policies, sustain an existing one amidst political instabilities, and expand UA initiatives to new policy sectors, notably urban planning. To do so, they mobilize various strategies, with emphasis on developing relational networks within government and with civil society and linking their proposals to international commitments. These outcomes contribute to the policy entrepreneurship and urban food policy literature strands by identifying new strategies entrepreneurs deploy and showcasing the development of UA policies in densely populated Global South cities.

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Conflict of Interests

The authors declare no conflict of interests.

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About the Authors



Marcela Alonso Ferreira is a PhD candidate in political science at Sciences Po, where she also teaches and collaborates with the research program of Sciences Po's Urban School. Marcela holds a master's degree in public policy and management from the Getulio Vargas Foundation and a bachelor's degree in architecture and urbanism from the University of São Paulo. Her prior experience includes applied research with non-governmental organizations, advising the Municipality of São Paulo, and working as an international development consultant.



Giselle Mendonça Abreu is a PhD candidate in city and regional planning at the University of California, Berkeley, where she conducts research on urbanization in the context of agro-industrial economies. Giselle holds a master's degree in urban and regional planning and a bachelor's degree in architecture and urbanism from the University of São Paulo. She has previous experience as an advisor at the Municipality of São Paulo's Department of Urban Development. She is currently an associate director of ZeroCem Institute.



Camila Nastari Fernandes is a postdoctoral fellow at the Federal University of São Paulo (Unifesp). She holds a PhD and a master's degree in planning and territorial management from the Federal University of ABC (UFABC), and a bachelor's degree in social sciences from the School of Sociology and Politics of São Paulo. Camila's broad experience includes serving the São Paulo state and municipal governments and consultancy for UNESCO. Her research focuses on institutions, bureaucracy, policy change, governance, and urban policies.



Vitória Leão is a PhD candidate at the Federal Rural University of Rio de Janeiro and a research intern at CIRAD, France. She holds a master's degree in applied ecology and a bachelor's degree in environmental management from the University of São Paulo. Her research focuses on how family farming is framed within scientific and political fields. As a consultant, she has experience in applied research on food systems, urban agriculture, and public policy in both national and international institutions.



Jaqueline Ferreira is research director at Instituto Escolhas, where she leads applied research projects based on land use, food systems, and bioeconomy. She holds a PhD and a master's degree in social sciences from the Federal Rural University of Rio de Janeiro. She was a guest researcher at EPSJV/Fiocruz on projects about health in agrarian reform territories. She has worked as a consultant for civil society organizations on institutional strengthening, education, public policy, and sustainable development projects.



Juliana Luiz is a research manager at Instituto Escolhas, overseeing applied research projects on food systems. She holds a PhD in political science and a master's degree in international relations from the Rio de Janeiro State University (UERJ). Juliana is affiliated with the World Political Analysis Laboratory (Labmundo) and has experience in research at different centers, teaching international relations, and coordinating philanthropic projects and institutional partnerships. Her main interests lie in the intersection of agriculture, food systems, and international relations.