## Municipal agendas for Urban and Peri-urban Agriculture:

A guide to integrating Agriculture into Urban planning processes

**Executive Summary** 









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MINISTRY OF SOCIAL DEVELOPMENT AND ASSISTANCE, FAMILY AND FIGHT AGAINST HUNGER



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BRAZILIAN GOVERNMENT

UNITING AND REBUILDING



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## Summary

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Why Urban and Peri-urban Agriculture is a strategic theme for improving city planning and life quality for its inhabitants?

## What is Urban and Peri-urban Agriculture?

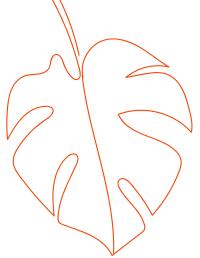
Urban and Peri-urban Agriculture (UPA) refers to a set of agricultural practices occurring within urban areas or in surrounding regions (peri-urban areas). UPA encompasses the entire production cycle, from cultivation and processing to the distribution of a diverse range of food and non-food products<sup>1</sup>. A key feature of UPA is its ability to promote resource circularity through practices like organic waste composting, water reuse systems, and energy generation from biomass, all of which contribute to effective waste management services.



### THE FIGURE 1 ILLUSTRATE THE VALUE CHAIN OF UPA.

Figure 1: Value Chain of Urban and Peri-urban Agriculture.

<sup>&</sup>lt;sup>1</sup> - MOUGEOT, 2009.



### **5** characteristics of Urban and Peri-urban Agriculture that reconfigure rural-urban relationships

• **Proximity to markets facilitates value chain shortening:** Greater proximity to consumer centers often enables the reduction or elimination of intermediaries, in situations where production is intended for self-consumption or direct sale to consumers.

• **Diverse functions beyond food or primary goods production:** Agriculture in urban and peri-urban areas can take on a variety of forms, ranging from plots in public squares and educational gardens to peri-urban farms deeply integrated into the market. Expected outcomes beyond income generation and food production include pedagogical, cultural, therapeutic, activist, hedonistic, and physical, psychological, or mental health-related benefits.

• **Multiple practitioner profiles:** Practitioners of UPA often come from diverse backgrounds and UPA may not be their primary occupation. These different profiles, such as family farmers, traditional populations and communities, or newcomers to the market, often reflect the demands that will be placed on municipal public management in terms of access to resources and technical training.

• Agroecological foundations supporting programs and initiatives: Building on traditional knowledge and family farming practices, ecological considerations become an integral element in urban and peri-urban agriculture programs and initiatives. This integration aims to transform local agri-food systems and create a new perspective on the city, focused on access to natural goods and resources.

• The need for structuring policies for UPA: While many cities have made strides in establishing legal frameworks that encourage UPA initiatives, it is not always recognized as a legitimate urban activity. Even when permitted, it may lack supportive structures or promotional policies to foster its development.

### Why should you care about this theme?

Urban and Peri-urban Agriculture (UPA) is...



### ...a structural action for eradicating hunger and promoting food and nutrition security.

• By reducing the distances food travels from production to consumption, UPA presents opportunities to reconsider the flows within local agri-food systems. In addition to facilitating the supply of essential foods for food and nutrition security, other significant outcomes include improvements in dietary habits and making Brazil's biodiversity values visible, such as native fruits, medicinal herbs, and unconventional food plants.



### ...a strategy for combating poverty in all its forms.

• Different experiences in Brazil and globally have identified UPA as a means of reducing inequalities through social and productive inclusion. In addition to being a source of income for those involved, UPA also drives the consumption of healthy foods, strengthens community relations, and provides access to new information.



### ...a supporter of mental, physical, and psychological health.

• UPA is considered a therapeutic activity promoting health, healthy lifestyles, happiness, and pleasure through interactions with nature, physical exercise, and socialization among different practitioners. Various initiatives are also developed to specifically target anxiety and depression reduction.



### ...a means of transforming education and empowering people.

• Gardens in institutional spaces such as schools, health centers, and social reintegration centers serve as notable examples. These initiatives foster the relationship between communities and nature, contributing to the formation of new mentalities and cultures, serving as a powerful instrument for community engagement.



### ...a pathway to reshape cities, placing the well-being of its inhabitants at the core.

• Various UPA initiatives revitalize community life and foster harmonious relationships with nature. These aspects contribute to a dignified life and intersect with benefits such as public safety, cultural enrichment, leisure opportunities, recreation, and overall well-being.



### ...a pivotal agenda for addressing climate change and urban waste management.

• UPA can be considered a 'nature-based solution'<sup>2</sup> that contributes to reducing climate risks and damages while promoting resilience and resource circularity in cities. Depending on the scale and characteristics of each initiative, it is possible to achieve results in terms of emissions reduction, carbon capture, heat and flood mitigation, as well as additional benefits such as the conservation of water sources and biodiversity.

<sup>&</sup>lt;sup>2</sup> - UNEP, 2019.

How can promoting this agenda minimize the city's problems and contribute to its development? The document "Municipal Agendas for Urban and Peri-urban Agriculture: A Guide to Integrating Agriculture into Urban Planning Processes" was developed in response to a demand from Brazilian municipalities for conceptual and methodological guidance. The central message of the UPA guide is to highlight the potential of UPA in addressing various urban challenges, recognizing the interconnections between food production and other outcomes in human, social, economic, and environmental domains.

The guide outlines at least six structural steps for building municipal agendas for urban agriculture. These steps are described below and depicted in Figure 2.



Figure 2: Six steps for building and/or strengthening municipal agendas for UPA.

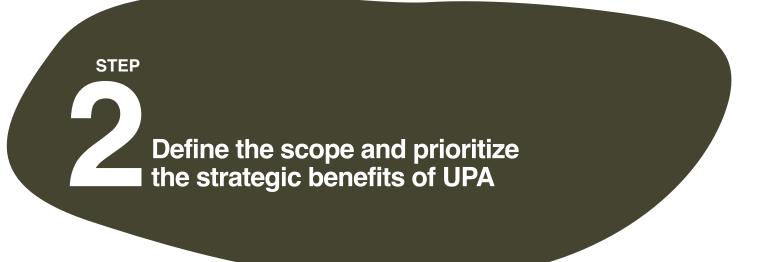
STEP

Mobilize and map strategic actors, ensuring broad participation from civil society and various public stakeholders

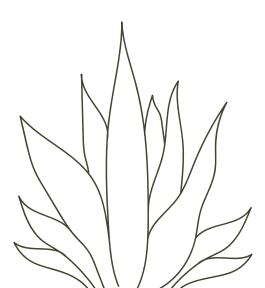
One of the guiding principles for municipal action in UPA is fostering interaction, dialogue, and social engagement. To achieve this, understanding the local ecosystem of actors extends beyond municipal boundaries. It necessitates mapping entities in nearby regions, such as neighboring municipalities, businesses, universities and research institutions, associations and cooperatives, informal groups, collectives, and civil society organizations. This mapping should encompass the diversity of actors involved in the UPA value chain, from production and consumption to waste management.

Mobilization efforts should also identify and engage strategic secretariats and agencies within the municipality that intersect with UPA development, creating a platform for cross-sectoral collaboration. Furthermore, look beyond the executive branch to potential partners in the legislative sphere, such as parliamentary fronts in various municipalities focused on food security and nutrition, the right to the city, environmental issues, among others. These actors can mobilize political support to advance legal frameworks that strengthen UPA.





This stage involves systematizing the main challenges or central issues for the municipality's development, often outlined in urban planning documents like the master plan, multi-year plans, and sectoral municipal plans. Collaboration with the actors identified in Step 1 can further reveal additional pertinent issues.



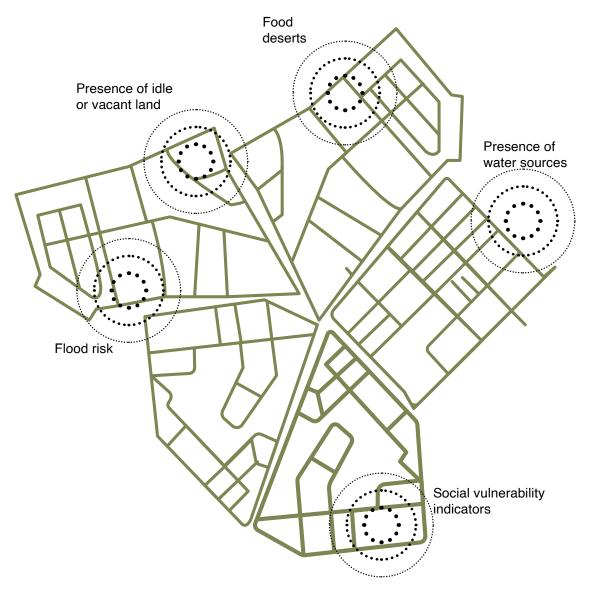


Figure 3: Identifying the city's demands that can be addressed through UPA initiatives is an important step and requires an understanding of the activity beyond food production.

After outlining the city's demands, the framework of potential benefits for urban and peri-urban agriculture (Figure 4) can serve as a springboard for identifying solutions. This approach aims to effectively integrate UPA into urban planning, establishing linkages between food production spaces and various outcomes in the human, social, economic, and environmental spheres.

### Social

### **Benefits dimensions**

Advancement of education

- Improving public safety
- Fostering cooperation and partnerships
- Ensuring food and nutritional security
- Preservation of sociocultural identities
- Promotion of community cohesion
- Promotion of culture, leisure and recreation
- Revitalization of dignity
   Food and nutritional education
   Reconnection with nature
   Promotion of well-being
   Enhancement of physical, mental, and psychological health
   Poverty reduction

WASTE MANAGEMENT

Production

Processing and marketing

Consumption

- Job creation and income generation
- Strengthening the solidarity economy
- Shortening the supply chains
- Reduction of food
  expenses
- Productive use of urban vacancies

WASTE MANAGEMENT

Economic

Biodiversity conservation
 Reduction in energy consumption
 Reduction of urban waste
 Improvement of water, air, and soil quality
 Reduction of flood risk

- Microclimate regulation
- Carbon sequestration
- Preservation of scenic beauty

Figure 4: Potential benefits of UPA for cities and their inhabitants, grouped according to the four dimensions proposed by TEEB Agriculture & Food.

### Environmental

• **Human dimension:** focuses on individual benefits like improved health, knowledge acquisition, and development of skills and competencies that contribute to personal, social, and economic well-being.

• **Social dimension:** emphasizes benefits that foster cooperation within and between UPA practitioner groups, including institutions. These fosters shared norms, networks, values, and understandings.

- **Economic dimension:** contributes to reducing inequalities within cities by improving access to material, intellectual, financial, and manufactured resources.
- **Environmental dimension:** highlights benefits derived from ecosystems' ability to provide services that contribute to human well-being.

Human

STEP

# Characterize UPA to visualize the diverse range of UPA practices within the territory

Urban and peri-urban agriculture (UPA) initiatives come in a wide variety, including community or educational gardens, family-run productive units, market-oriented peri-urban farms, public square herb gardens, green roofs, urban greenhouses, and vertical farms. Each type offers benefits to varying degrees across human, social, economic, and environmental domains (Figure 5), depending on its characteristics and how it interacts with the local environment. Therefore, cities are encouraged to embrace a mosaic of UPA types to maximize the benefits they achieve.

The first step in this process is to identify existing UPA initiatives within the municipality by engaging with the various actors mapped in Step 1. This stage also presents an opportunity to explore new UPA models that could be fostered to achieve the benefits prioritized in Step 2. Ultimately, each municipality should strategically prioritize UPA types, mapping their characteristics and potential benefits.

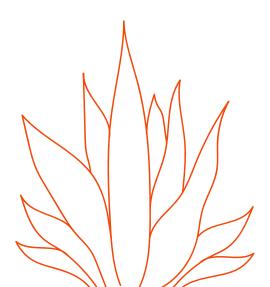




Figure 5: Mosaic of UPA types to maximize the achievement of multiple benefits.

In recognition of the diverse range of UPA initiatives, the Guide introduces an analytical framework (Figure 6). This framework is designed to support the creation and description of each UPA type found within the municipality. The framework relies on understanding 10 key variables presented in the figure below.

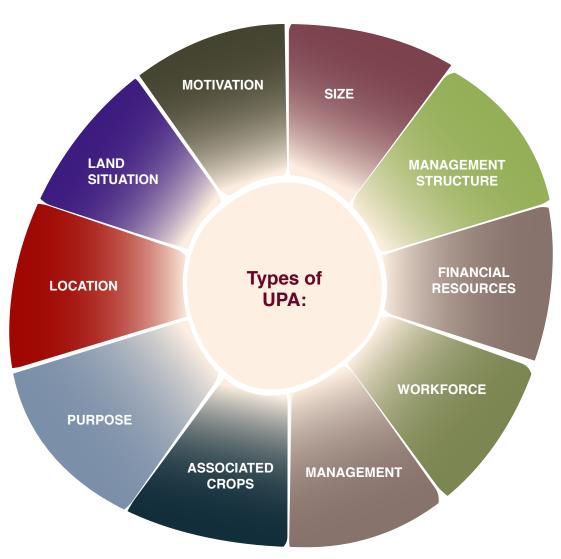


Figure 6: Analytical framework for characterizing different types of UPA within the municipality

Public agents can gather information and complete the framework using simplified, time- and resource-efficient methods. These methods include accessing databases like the **Agricultural Census** and other surveys available on the **IBGE Cities** platform, as well as utilizing catalogs and information systems from the Municipality itself. Additionally, immersing oneself in the territory through on-site visits, meetings, and interviews, or virtually through online forms, is another valuable approach for structuring typologies.

### STEP

## Implement instruments to strengthen municipal UPA agendas

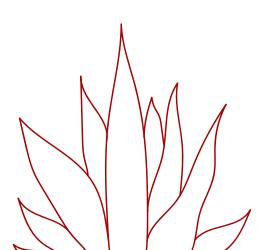
Across different UPA development trajectories in cities, a common thread emerges: the interdependence of various aspects. This includes public policy at all stages, from formulation to monitoring, and the provision of public services that meet UPA needs, such as land and water access or technical assistance initiatives.

Municipalities known for their UPA actions and policies have emphasized two interdependent aspects in their agenda development:

**i) Institutionalization of the Agenda (Vertical Scaling):** This involves establishing a formal framework for UPA within the city's governance structure;

**ii)** Incentives for Initiative Proliferation (Horizontal Scaling): This focuses on encouraging the creation and spread of UPA initiatives across the territory.

While this division might not always be strictly followed in practice, with actions often happening dynamically and overlapping, it serves as a valuable tool for understanding the instruments available to public agents and how to strategize their efforts.

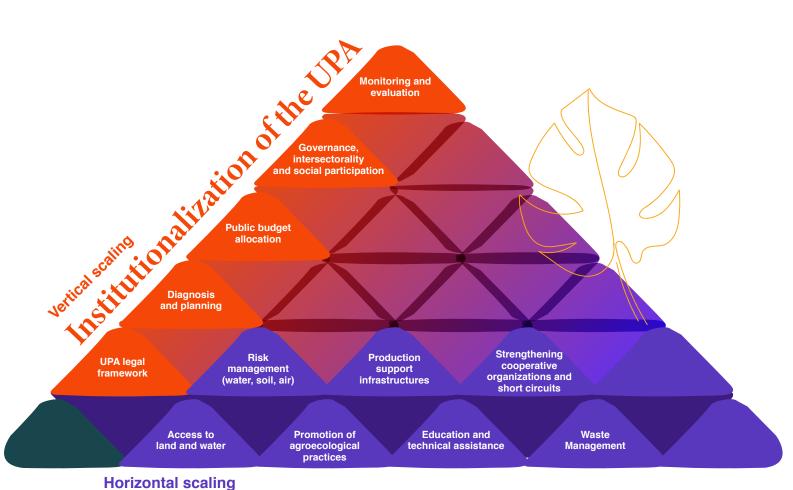


The core message behind these two axes is to emphasize the importance of **complementarity and interconnectivity between vertical and horizontal efforts**. Each aspect influences the other. Strong public policy and institutionalization (vertical) can facilitate the proliferation of initiatives (horizontal). Conversely, a strong base of initiatives (horizontal) can build momentum and strengthen the case for institutionalization (vertical).

The recognition of UPA as a strategic element in urban planning hinges on both the presence of existing initiatives within the territory and pathways for their multiplication. However, relying solely on programs to incentivize new initiatives makes them vulnerable to political shifts. Institutionalization can mitigate these disruptions, but it alone doesn't guarantee successful implementation.

Sustainable UPA development requires a continuous and simultaneous advancement in both directions. A solid foundation of initiatives multiplying across the territory, complemented by a strong institutionalization process, opens a broader range of possibilities for UPA's success in the city.

The instruments for strengthening UPA are summarized in Figure 7 below.



## UPA multiplication

Figure 7: Framework of instruments for strengthening UPA - vertical and horizontal scaling.

### Vertical scaling institutionalization of UPA:

• Legal Framework: Develop laws, decrees, and regulations to enable municipal UPA agendas.

• Diagnosis and Planning: Build upon existing UPA initiatives, assessing their potential, challenges, and management models. This helps define action areas and suitable public policy instruments;

• **Public Budget Allocation:** Integrate UPA into planning instruments and allocate municipal funds accordingly;

• Governance, Intersectorality, and Social Participation: Establish management structures that bring together various government sectors and other UPA stakeholders;

• Monitoring and Evaluation: Regularly assess results to inform the continuation, improvement, and potential expansion of UPA initiatives.

### Horizontal scaling multiplication of UPA:

• Access to Land and Water: Identify suitable areas for UPA practices to ensure access to land and water resources.

• **Risk Management:** Ensure soil, water, and air quality for safe food production by managing potential risks.

• **Promotion of Agroecological Practices:** Promote agroecology as a guiding principle for initiatives, knowledge generation, and sustainable living.

• **Production Support Infrastructure:** Develop infrastructure to foster UPA practices by providing equipment, materials, machinery, and inputs to practitioners.

• Education and Technical Assistance Services: Provide education and technical assistance to UPA practitioners and the general public, guiding practices and promoting the UPA agenda.

• Strengthening Cooperative Organizations and Short Circuits: Foster marketing and consumption of locally produced food by supporting cooperative organizations and short circuits (direct producer-to-consumer channels);

• Waste Management: Integrate resource circularity into the UPA agenda by promoting composting of organic waste produced in cities.

Based on this understanding, applying the **checklist for municipal public management is recommended**. This checklist serves as a "self-assessment" exercise, allowing municipalities to recognize existing actions that align with the UPA agenda and identify areas for improvement. It encourages a comprehensive review of all the instruments gathered in the Guide.

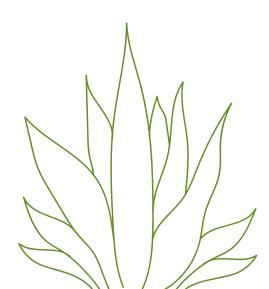
### STEP



Create an administrative body to oversee the implementation of the municipal UPA agenda

After completing the UPA agenda planning stages, a crucial step is defining an administrative body at the municipal level to oversee its execution. **Before creating new structures, it's important to explore integrating UPA with existing entities to leverage their strengths**. In Brazil, municipal components of the National Food and Nutritional Security System (SISAN) are prime examples. These could include the Municipal Food and Nutritional Security Council (CONSEA Municipal) and the Intersectoral Chamber of Food and Nutritional Security (CAISAN Municipal). Similarly, municipalities with Agriculture and Sustainable Rural Development Councils can use these existing structures to connect UPA with discussions on rural spaces.

The designated body should prioritize fostering dialogue, especially with civil society. An effective UPA governance model significantly impacts its advancement within the municipality. By fostering an institutional environment, it can reduce the risk of setbacks during changes in public administration cycles.



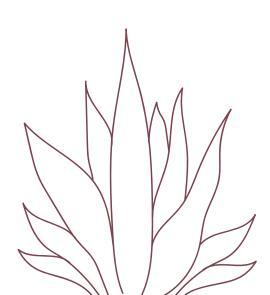
STEP

## Monitor and communicate the results of the UPA agenda

In the context of urban and peri-urban agriculture, it is considered particularly relevant to structure quantitative, qualitative, and monetary indicators so that the various values related to the UPA in question are identified. Special emphasis should be placed on qualitative indicators since many of the benefits of UPA relate to intangible aspects, especially those related to social and human dimensions. Examples include attributes of mental and psychological health, the enhancement of well-being through contact with nature, and the promotion of community cohesion.

In this regard, it is considered of fundamental importance **that social participation guides both monitoring and evaluation actions**. By accessing the opinions of beneficiaries and other municipal actors involved, it is possible not only to identify the most significant transformations provided by UPA actions but also to highlight inconsistencies and points of conflict, effectively identifying opportunities for improvement.

Therefore, in light of the results of monitoring and communication actions, it is possible to chart new cycles, eventually revisiting some of the previous steps. In this sense, new actors may emerge (step 1); by meeting political demand, other benefits may emerge with greater priority (step 2); new types of UPA may emerge from new technologies and social arrangements (step 3); governance spaces may be modified (step 4); and the administrative body may require new guidelines or adjustments in its operations (step 5).



What are the key lessons to consider when planning a municipal agenda for UPA? • Urban and peri-urban agriculture (UPA) is not necessarily sustainable and ecological. There is conventional agriculture inside and around cities, mainly market oriented, often reliant on practices with negative externalities for urban dwellers and ecosystems. Therefore, efforts to strengthen this agenda should be anchored in proposals that contribute to the agroecological transition and the right to the city and balanced environment.

• While recognizing the potential benefits of sustainable UPA across various fields, it is important to highlight that the synergy between such benefits does not necessarily manifest automatically. It is now well-understood that the environmental dimension forms the basis upon which agriculture depends, and from which all other dimensions develop. The sustainability of urban and peri-urban agriculture is only possible, therefore, if natural resources such as soil, water, air, and biodiversity are conserved according to limits, or even regenerated - both quantitatively and qualitatively.

• In the planning of municipal UPA agendas, it is important to consider all links of the value chain, beyond agricultural production. Viewing UPA as part of a sustainable agri-food system, allows for the mapping of actions that can be integrated into production, processing, distribution, marketing, consumption, and waste management stages (generated throughout the entire process).

• To bring visibility to the multiple benefits that UPA delivers to cities and their inhabitants, it is essential to establish an integrated vision among different UPA initiatives. This allows for the development of a diverse range of UPA models where various benefits complement each other, leading to more robust outcomes.

• The creation of UPA agendas simultaneously depends on addressing institutional voids. which are cases where there are no legal or regulatory frameworks authorizing and regulating the development of urban and peri-urban agriculture initiatives, and on a wide range of actions for the multiplication of initiatives, encompassing the quantity, extent, and replication of UPA initiatives in the territory.

• A participatory process involving diverse stakeholders across the value chain and territory is crucial for shaping the agenda. This is because the result of a certain indicator may be positive for one actor but negative for another, and may also differ from its value to society at large. Thus, the participatory process assists in mapping these contrasting values and favors the development of inclusive actions.

• Effective UPA governance requires municipal management to act as a facilitator, not a centralizer, in planning and execution. Therefore, the construction and formalization of partnerships with universities, companies, private property owners, schools, resident collectives, civil society organizations, and other public spheres (state and federal governments) are essential for strengthening the agenda.

### Municipal agendas for urban and peri-urban agriculture: A guide to integrating agriculture into urban planning processes

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