

ARTICLE / ARAŞTIRMA

Promoting Innovativeness, Sustainability, and Place-sensitivity: The Role of Governance in Urban and Peri-urban Agriculture

Yenilikçiliği, Sürdürülebilirliği ve Yer Duyarlılığını Teşvik Etmek: Kentsel ve Kent Çevresi Tarımında Yönetişimin Rolü

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ABSTRACT

Urban and peri-urban agriculture (UPA) impacts a wide range of social, economic and environmental aspects of urban development. This reflects the diversity of actors who participate in UPA governance processes and the intricacy of the UPA governance mechanisms themselves – both within individual UPA practices and in the process of city planning that regulates, supports and implements UPA initiatives. While the literature is rich in describing various UPA governance models, there is little research done on specific governance mechanisms that lead to concrete positive outcomes for UPA initiatives themselves, for urban dwellers and for rural-urban relations. In this article we aim to find out if there are distinct UPA governance mechanisms that have positive impacts on the sustainability of UPA practices themselves, on their innovative potential and on their capacity to solve concrete local social, economic or environmental challenges. Based on empirical data from 15 case studies from Europe and beyond, the article presents an in-depth analysis of UPA governance practices and mechanisms, implemented by various combinations of actors at three distinct stages of the development of UPA initiatives: their initiation, their implementation and their long-term maintenance. Based on a comparative analysis of top-down, bottom-up and hybrid governance approaches at these three stages, the article provides a comprehensive list of good practices and take-away lessons that could be equally valuable to practitioners, urban planners, policy-makers, supporting organizations and researchers in their attempt to enhance the conditions for UPA success and reduce the barriers it faces in any urban locality.

Keywords: Innovativeness; governance mechanisms; place-sensitivity; sustainability; urban and peri-urban agriculture.

ÖZ

Kentsel ve kent çevresi tarımı (İngilizce: UPA - Urban and peri-urban agriculture), kentsel gelişimin çok çeşitli sosyal, ekonomik ve çevresel yönlerini etkiler. Bu, UPA yönetim süreçlerine katılan etkenlerin çeşitliliğini ve UPA yönetim mekanizmalarının karmaşıklığını yansıtır: Hem bireysel UPA uygulamaları içinde, hem de UPA girişimlerini düzenleyen, destekleyen ve uygulayan şehir planlama sürecinde. Çeşitli UPA yönetim modellerini tanımlayan çok sayıda bilimsel kaynak söz konusu, ama UPA girişimlerinin kendileri, kent sakinleri ve kırsal-kentsel ilişkiler için somut olumlu sonuçlara yol açan belirli yönetim mekanizmaları hakkında çok az araştırma yapılmıştır. Bu makalede, UPA uygulamalarının sürdürülebilirliği, yenilikçi potansiyelleri ve somut yerel sosyal, ekonomik veya çevresel zorlukları çözme kapasiteleri üzerinde olumlu etkileri olan farklı UPA yönetim mekanizmalarının olup olmadığını bulmayı amaçlıyoruz. Avrupa ve ötesinden 15 vaka çalışmasından elde edilen deneye dayalı verilere dayanan bu makale, UPA girişimlerinin gelişiminin üç farklı aşamasında çeşitli etken kombinasyonları tarafından uygulanan UPA yönetim uygulamaları ve mekanizmalarının derinlemesine bir analizini sunmaktadır: Onların devreye sokulması, uygulanması ve uzun vadeli bakımları. Bu üç aşamada, yukarıdan aşağıya, aşağıdan yukarıya ve karma yönetim yaklaşımının karşılaştırmalı analizine dayanan makalemiz, uygulayıcılar, şehir plancıları, politika yapıcılar, destekleyici kuruluşlar ve araştırmacılar için UPA'yı başarılı kılan koşulları iyileştirme ve herhangi bir kentsel bölgede karşılaşılan engelleri azaltma çabaları konusunda eşit derecede değerli olabilecek iyi uygulamaların ve bundan çıkarılacak derslerin kapsamlı bir listesini sunmaktadır.

Anahtar sözcükler: Yenilikçilik; yönetim mekanizmaları; yer duyarlılığı; sürdürülebilirlik; kentsel ve kent çevresi tarımı.

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Şehir Plancıları Odası



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1. Introduction

Local policy-making has not traditionally been focused on food planning, leaving food systems to be regulated by businesses and corporations (FoodTrails, 2021). However, increasing awareness of the environmental and societal impacts of food systems has led to a surge in urban and peri-urban agriculture (UPA) initiatives (Hassanein, 2003). These initiatives provide fresh, local food to those who are involved in them and to their social networks, and play a vital role in addressing multifaceted challenges to urban development. Social exclusion, economic inequalities, environmental sustainability, as well as vital urban innovations are successfully addressed by various UPA activities (Lohrberg et al., 2016; Prové, 2018; Cassatella and Gottero, 2022). These universally desired outcomes are on the agenda of individual cities and were recognized as one of the Sustainability Development Goals of the United Nations as SDG 11 – “Sustainable Cities and Communities” which aims to make cities inclusive, safe, resilient, and sustainable (United Nations, 2015). This is legitimizing the emergence of UPA as an important component of sustainable urban planning and has made research in UPA governance a relevant undertaking for scientists, as well as for local authorities and civil society.

The beneficial role of UPA in all dimensions of sustainable urban development – social, economic and environmental – has been showcased extensively in urban planning literature (Gündel et al., 2000; Dubbeling et al., 2010; Lohrberg et al., 2016; Pradhan, 2024). The positive outcomes of UPA are not inherent to them, though and, as demonstrated by Pradhan et al. (2024), there are a number of policy and practice hurdles that need to be overcome in order for UPA to be able to offer sustainable solutions to local urban challenges.

We claim that it is the governance structures and processes of UPA initiatives that significantly influence their outcomes. Therefore, the aim of our research, based on empirical data from 15 case studies, is to discern specific governance mechanisms and structures that make UPA initiatives more likely to succeed in offering innovative and place-sensitive solutions to urban challenges, while also remaining sustainable in the long run. The article provides in-depth analysis of UPA governance characteristics across three main stages of UPA evolutionary development that we categorize as initiation, implementation, and maintenance. It aims to answer three research questions: *Are there distinct characteristics of UPA governance models that impact the sustainability of UPA practices, here understood as longevity of the initiatives and their integration into the urban context? How does UPA contribute to urban innovation, and what governance factors enhance its innovativeness? How do UPA initiatives address local urban challenges, and what governance characteristics make them place-sensitive?*

The analysis was performed within the research framework of the European Forum for Urban Agriculture project (EFUA), funded by the European Horizon 2020 research and innovation programme.

2. The Conceptual Framework

The key concepts we work with in this article are interpreted in various ways in literature and mainstream discourse, therefore a short framing of the way they are understood and used here is necessary. Additionally, we briefly present the typology of UPA initiatives implemented, to clarify the scope and diversity of the gardening and farming activities under study.

2.1. Governance

Urban and peri-urban agriculture (UPA) is conceptualized as a multifaceted phenomenon encompassing land use, social practices, and economic activities, echoing the perspective of McClintock et al. (2021). This article adopts their framework to explore UA governance beyond traditional policy-making and local regulations, emphasizing the complex interplay of social practices, institutional arrangements, and power dynamics. These elements are examined in relation to their role in initiating, coordinating, steering and maintaining UPA practices, and in terms of a UPA initiative's relationships with external local actors, and among members of the initiatives themselves. Drawing on Pieterse (2000), urban governance is here understood as a collaborative endeavour involving local government, civil society organizations, and the private sector. This collaborative model is contrasted with hierarchical decision-making approaches, highlighting its importance in fostering sustainable urban development and enhancing democratic participation (Jansen et al., 2006). This perspective guides the present analysis of how governance processes in UPA can integrate diverse stakeholders and facilitate inclusive decision-making, as elaborated by McClintock et al. (2021).

The article situates governance processes within UPA as both an object and an outcome of governance efforts. It explores how external policies and instruments formalize UPA management (McClintock et al., 2021), while also examining how everyday practices shape governance outcomes through grassroots initiatives and stakeholder engagement. This dual perspective informs our understanding of UPA governance dynamics, emphasizing the iterative process of problem-solving, solution-building, and norm-setting (McClintock et al., 2021).

While acknowledging the crucial role of state and local governments in UPA governance (Halloran & Magid, 2013; Lovell, 2011), the article adopts a multi-actor perspective. It considers the contributions of UPA practitioners, supportive organizations, and broader public perceptions in shaping governance outcomes. Prové's insights into decision-making processes within UPA communities further enrich the analy-

sis, highlighting the role of governance in defining goals, methods, and inclusivity within UPA practices (Prové, 2018).

The literature offers numerous UPA governance models and typologies. These range from classifications based on who initiates UPA (Bródy and de Wilde, 2000) to models considering the state and level of formalization, exclusion, resistance, and re-visioning of UPA policies (McClintock et al., 2021). Additionally, there is the classical dichotomy of “top-down” and “bottom-up” models, depending on whether the driving force comes from authorities with executive power or from citizens directly impacted by the governance intervention (Jacob & Rocha, 2021). In this article we have adopted the top-down/bottom-up governance model approach, utilizing three sub-types: (1) bottom-up models, where the gardeners involved decide what should happen and how, often supported by environmental and other relevant organizations, as well as activists; (2) top-down models, where the decision-making lies in the power of the local authorities or other public institutions, and practitioners are not actively engaged in setting objectives, planning and management; and (3) hybrid models, where formal institutions of power and members of civil society participate collaboratively and equally in the UPA governing processes.

2.2. Innovativeness, Place-sensitivity and Sustainability

This article focuses on how UPA governance models and practices impact three desired UPA outcomes: innovativeness, capacity to solve specific local economic, social or environmental problems, referred to as place-sensitivity, and UPA sustainability over time.

In line with United Nations (2015) SDG 11, the innovation potential of UPA in our research means fostering an environment where new ideas, relations, networks, and technologies can be developed. In this article, several aspects of UPA's role as an innovator are studied. Firstly, its contribution to doing agriculture in new ways, developed under the pressure of urban restrictions on land and resources (Orsini, 2020; Thomaier, 2017). Secondly, UPA is viewed as an innovative phenomenon not only when it provides good opportunities for agri-innovation but also provides grounds for new social and business networks, applying a multi-actor approach to addressing urban planning and development issues (Critchley et al., 2007). Thirdly, UPA could take over the role of an innovation incubator that brings new practices and solutions back to the countryside and improves urban-rural linkages (Skar et al., 2015). Lastly, the innovativeness of UPA is also related to its potential for addressing specific social, health, climate, and food and waste problems that urban residents face (Lohrberg et al., 2016).

We are also interested in the overall relevance of UPA initiatives to pressing local challenges. We call this aspect of UPA initiatives “place-sensitivity.” It refers to (1) the formal claims a UPA initiative has on addressing specific urban issues; (2)

measurable results that demonstrate effective solutions of urban problems brought about by the initiative; and (3) deliberate involvement of UPA actors in interaction with other urban stakeholders in order to address broader urban problems such as social exclusion, food security, unemployment, etc.

Lastly, UPA's sustainability is defined here as its long-term viability and the likelihood of its engaging both citizens, local governments and other stakeholders, based on its lifespan, human, material and financial resources, as well as the density of its support network.

2.3. UPA Types and Relevance for the Research

While UPA studies are abundant in scientific research and mainstream media, defining UPA remains challenging. Definitions vary depending on factors such as engagement with urban economic and environmental systems or production locations (Pickard, 2022). This article adopts a broad definition of UPA to capture its diversity of forms, production methods, business models, and stakeholders, and to understand its integration into urban and peri-urban areas through innovativeness, place-sensitivity, and sustainability of UPA practices. However, in order to distinguish specific governance practices and mechanisms that are typical for certain UPA practices and not others, we have implemented the UPA typology of Jansma et al. (2024), who discern six types of gardening and farming activities in and around cities (Table 1). These types are clustered around the initiatives' characteristics along four practice dimensions: the spatial dimension (where in the city and on how big a plot the initiatives takes place, indoors or outdoors, etc.); the production dimension (what types and varieties of products the initiative produces); the operational dimension (is the produce sold, who consumes it); the community dimension (who is responsible for maintaining the initiative and whether it is open to leisure and other community activities).

In our study, it was observed that urban farms, zero-acreage initiatives, and social farms exhibit similar governance characteristics and positive outcomes, just as community parks, DIY gardens, and community gardens do. This observation suggests that these similarities likely arise from the differing primary objectives of these two type groups: the former primarily focus on profit, while the latter emphasize community empowerment and post-materialistic values. Therefore, we qualify each of the six UPA types from Jansma et al. either under the heading “for-profit” or under the heading “not-for-profit” UPAs.

As illustrated in Figure 1, the conceptual framework aims to link governance dynamics within diverse UPA initiatives and their potential to demonstrate sustainability, innovativeness, and place-sensitivity. As highlighted above, the conceptual model includes all types of UPA initiatives – both the commercial ones which we have called “for profit,” and “not-for-profit” initiatives oriented towards creating non-material and common goods.

Table 1. UPA typology according to Jansma et al. (2024)

Urban farm	Commercial UPA initiative, with a wide variety of products, usually on large areas of land
Community park	UPA initiative that combines food production with a landscaped space, where community involvement and non-food activities are common
Do-it-yourself (DIY) garden or park	UPA initiative aimed mostly at individual production of food for own consumption, without additional leisure activities
Zero-acreage farm	UPA initiative where food is produced utilizing small spaces that may not be on the ground, but on raised spaces, afloat or on rooftops, and produce is usually sold
Social farm	UPA initiative where food production is combined with healthcare services or other activities that help the disadvantaged
Community garden	UPA initiative where community building activities and social aspects are more prominent than food production

UPA: Urban and peri-urban agriculture.

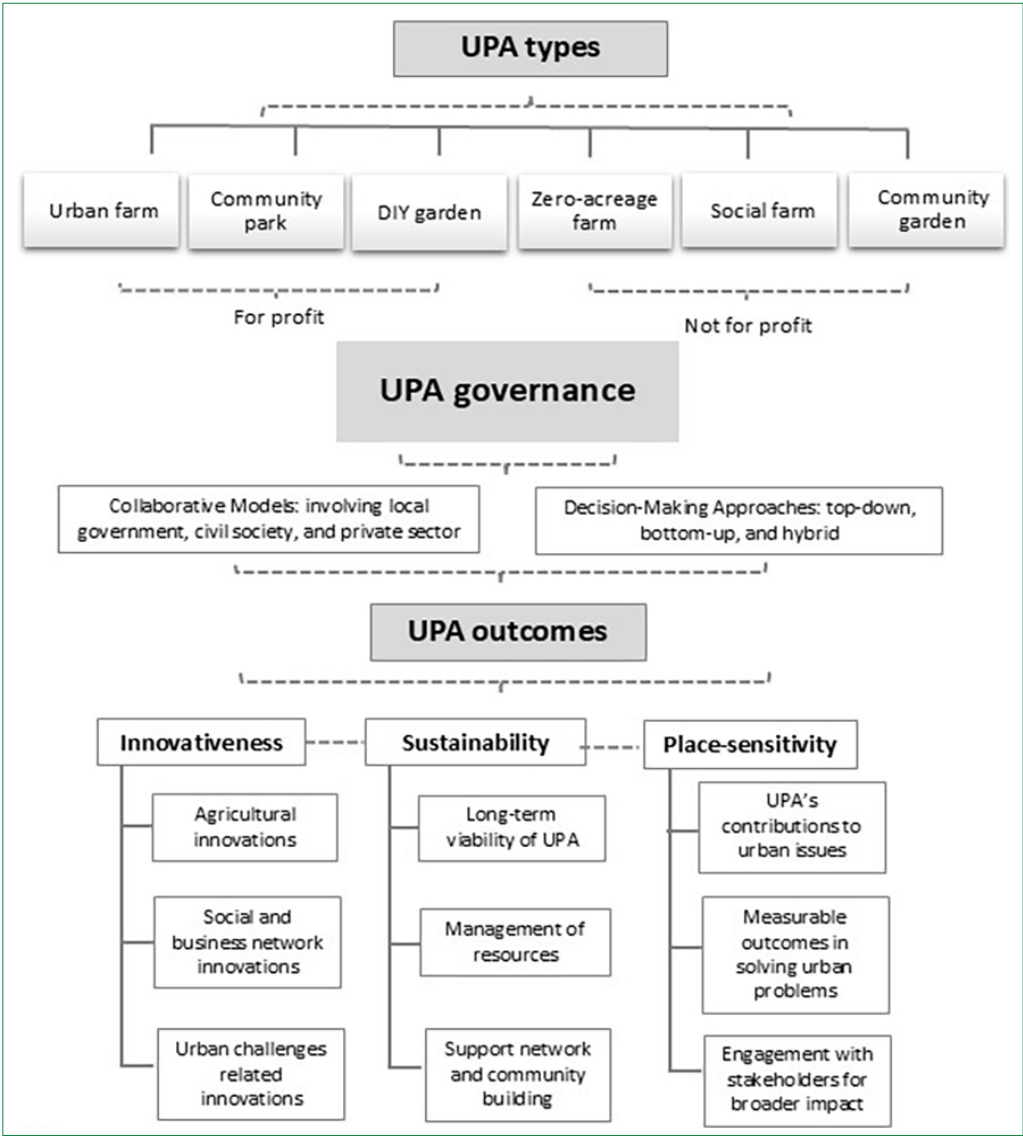


Figure 1. Elements of the conceptual framework.

Table 2. Indicators to measure desired outcomes in 112 UPA initiatives

Sustainability indicators	Innovativeness indicators	Place-sensitivity indicators
Longevity of the initiative: • Initiatives under 5 years (1 point); • 5 to 10 years (2 points); • Over 10 years of existence (3 points). Access to resources: (A point for each sub-indicator) • Ownership or long-term lease rights of the land; • Access to processing facilities; • Renewable energy, water and waste-recycling resources; • Diversity of supporting partners – a point for each category of eleven possible ones, including individuals, municipality or municipality-owned companies, private companies, public institutions such as schools and hospitals, social enterprises, etc.	Planned and unplanned outcomes under the following categories: (A point for each sub-indicator) • Creating alternative food chains; • Productive reuse of vacant and derelict urban sites; • Novel agricultural methods such as permaculture and vertical farming; • Experimenting with growing plants in unfavourable climate conditions	Positive local community impacts across social, economic, environmental, and spatial dimensions: (A point for each sub-indicator) • Social cohesion and poverty alleviation (through food security, job creation, self-sufficiency); • Landscape and cultural heritage preservation; research and education, including early childhood education (literacy, social learning, training); • Health (recreation and health care); access to quality food/diet; • Soil protection; • Biodiversity (including traditional seeds protection); • Circularity (renewable resources, water retention); • Climate change mitigation (including through multifunctional green spaces).

UPA: Urban and peri-urban agriculture.

3. Research Methodology

The case studies analysed were selected from 112 UPA initiatives across Europe and beyond that took part in an online survey carried out as part of the EFUA activities (Jansma et al., 2024). The survey consisted of 50 questions, including several that provide data about the indicators for measuring initiatives' sustainability, innovativeness, and place-sensitivity. Table 2 summarizes the indicators and sub-indicators we have used to identify and quantify the three desired UPA outcomes using EFUA questionnaire data.

To identify specific cases to explore the link between governance model, sustainability, innovativeness, and place-sensitivity we focused on two criteria: the most geographically and functionally diverse initiatives and cases that demonstrated the best results related to the three desired UPA outcomes.

For each type of desired outcome, we scored the cases on all the respective indicators, as listed in Table 2, using the scoring approach provided in the table. Then, choosing from the highest scoring cases, we selected three from each of the six UPA types, so that together they constitute the most diverse sample in terms of geographical location. After taking into consideration specific challenges in data accessibility and respondents' availability, three cases had to be eliminated

and two substituted by other initiatives from the survey with equivalent scores, resulting in a final selection of 15 cases. For a summary of the case selection process see Figure 2.

Data on two context indicators were also collected in the online survey – *type of settlement* (city, town, peri-urban) and *existence of local policy related to UPA* (e.g. food policy, urban planning). This was done to grasp the diversity among cases and to facilitate understanding of the impact of the local policy context on the desired UPA outcomes. During the analysis of the cases, additional in-depth questions on the policy context were asked. The local culture and attitudes towards UPA were also taken into account. Both types of indicator – related to the desired outcomes and context indicators were cross-analysed in each case, and then cases were compared.

While it is clear that the success of UA initiatives in fostering innovativeness, sustainability, and place-sensitivity relies on a dynamic interplay between contextual factors (such as policies, cultural values, socio-economic conditions and where in or outside the city the initiatives are located), and internal governance characteristics like leadership and organizational dynamics, our research highlights a key finding: *the ability of governance practices to adapt to and even influence local conditions is the primary determinant of outcomes*. Supportive con-

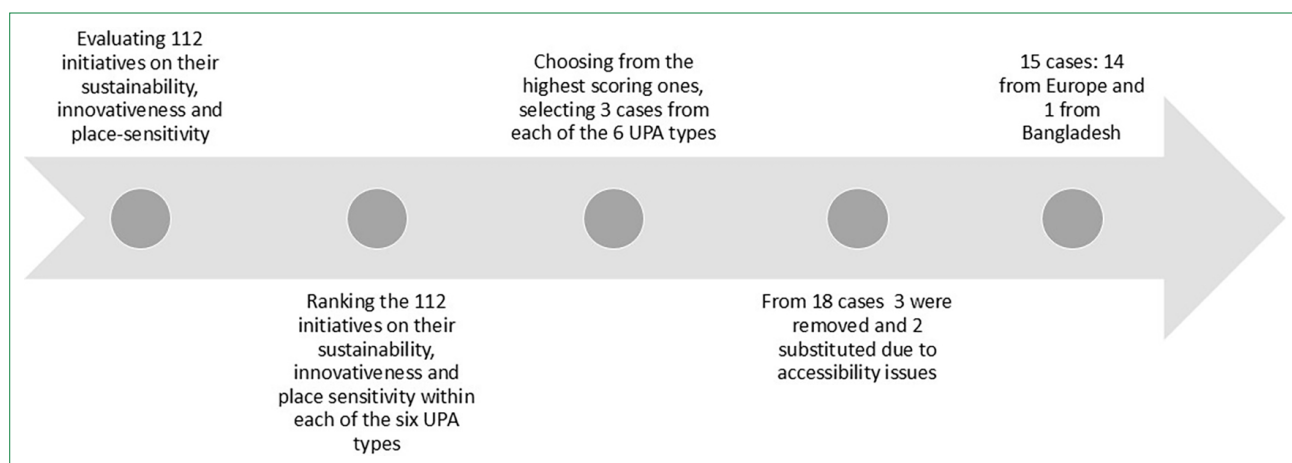


Figure 2. Case selection process.

UPA: Urban and peri-urban agriculture.

textual factors provide a strong foundation, but it is the responsiveness and adaptability of governance that ultimately drive success. Therefore, *our primary focus is on the process of reaching beneficial UPA outcomes, in environments fostering UPA and in less UPA-friendly contexts alike, aiming to show transferability of UPA governance models beyond the policy and spatial context.* As visible from the country and city locations that are included in this case-study selection (Table 3), we have aimed for geographical, socio-economic, cultural, and historical diversity of UPA representations, including a case from a less developed country outside Europe.

After the case selection procedure based on the EFUA survey and elaboration of the indicators, the next step was to conduct in-depth case study research through qualitative methods.

Each case study was researched using both secondary sources (reports, media publications, project websites) and primary data gathered through semi-structured interviews. Between one and four interviews were conducted per case study, ensuring representation from key stakeholders within and outside the UPA initiative. Primary and secondary data on each case was collected and analysed by the partner responsible

for it who then entered the aggregated data into a reporting template, organized in thematic sections. To ensure a systematic and rigorous analysis of the case study data, the authors of this article developed a thematic coding framework aligned with the semi-structured questionnaire and standardized reporting template used for the 15 case studies. This framework was applied to code the data from the reporting templates. This methodology enabled us to derive meaningful insights while maintaining a strong connection between the research questions, data collection, and analysis.

The coding followed Braun and Clarke's (2006) six-phase framework, which provided a robust foundation for identifying and synthesizing patterns within the data. The first phase involved immersing ourselves in the data from the reporting templates through repeated reading, allowing us to conceptualize preliminary themes. Next, data segments were systematically grouped into relevant categories to ensure comprehensive organization. Broader, cohesive themes were then identified by synthesizing related patterns, enabling us to explore key relationships, such as between governance models and stakeholder engagement. In the fourth

Table 3. UPA types and geographical distribution of case studies (lifespan is at the time of data gathering – 2023)

UPA type	Urban farm	Community park	DIY garden	Zero acreage	Social farm	Community garden
Cases	Turin, Italy	Glasgow, UK	Loures, Portugal	Brussels, Belgium	Dobrich, Bulgaria	Thessaloniki, Greece
	>10 years	>10 years	5–10 years	5–10 years	5–10 years	<5 years
	Sofia, Bulgaria	Copenhagen, Denmark	Bergen, Norway	Sofia, Bulgaria	Dundee, UK	Rome, Italy
	5–10 years	>10 years	>10 years	5–10 years	>10 years	5–10 years
	Ghent, Belgium			Dhaka, Bangladesh		Sofia, Bulgaria
	<5 years			>10 years		<5 years

UPA: Urban and peri-urban agriculture; DIY: Do-it-yourself.

phase, themes were rigorously reviewed for accuracy, clarity, and distinctiveness. We iteratively refined these themes to resolve ambiguities and ensure analytical relevance. The fifth phase involved defining and naming themes, articulating their boundaries, and explaining their significance to the research objectives. Finally, the sixth phase synthesized these themes into a cohesive narrative, integrating illustrative excerpts to ground the findings in the data.

Following this approach, the coding process was structured around main themes and sub-themes, serving as analytical categories to interpret the dynamics of UPA initiatives. These themes are related to the above-mentioned key indicators describing governance mechanisms, desired UPA outcomes, and local contexts.

Each theme corresponded to specific questions in the data collection process, ensuring alignment with the study's objectives and capturing key governance practices, achievements, external relations, inclusion, success factors, and barriers. Internal governance aspects included leadership roles, organizational processes, conflict resolution strategies, and interactions with external stakeholders and institutions, while external governance factors were assessed in terms of local authority involvement and collaborative mechanisms. This comprehensive approach allowed the analysis to identify governance practices, along with the enablers and barriers that influence the sustainability, innovativeness, and place-sensitivity of UPA initiatives.

After the data collection, during the coding process a common pattern of governance challenges and processes was discerned across all cases that differed depending on their evolutionary stage, which we categorized as *initiation*, *implementation*, and *maintenance*. By adding this complementary analytical approach, we not only managed to differentiate the evolutionary governance characteristics of UPA initiatives, but also to systematically examine critical success factors and barriers for achieving sustainability, innovativeness, and place-sensitivity.

The analysis of the *initiation* stage provides valuable insights into the foundational elements of UPA initiatives. It illuminates the origins of each UPA initiative, including the diversity of actors who initiate them, initial goal-setting processes, and strategies for securing necessary resources. Understanding these early dynamics is crucial as they lay the groundwork for the entire initiative, setting its trajectory and shaping its goals.

The analysis of the *implementation* stage shifts the focus to the decision-making processes within UPA initiatives. This phase explores how decisions are made, which actors are involved, and the leadership qualities that prove pivotal to success. It examines the roles and interactions of external stakeholders, such as local authorities and community organizations, highlighting their influence on project outcomes and sustainability strategies.

Lastly, the analysis of the *maintenance* stage zooms in on the governance mechanisms that sustain UPA initiatives over time. It examines both internal governance practices within the initiative – such as organizational structures, decision-making frameworks, and conflict resolution mechanisms – and external governance dynamics involving relationships with broader societal actors and policy environments. At this stage we identify key factors that contribute to the long-term sustainability, innovativeness, and place-sensitivity of UPA initiatives (Fig. 3).

By employing this comprehensive three-stage approach, the study both deepens our understanding of the complex interplay between UPA outcomes, governance mechanisms and local context, and provides actionable insights for enhancing the effectiveness of urban agriculture policies and practices. It sheds light on the challenges and opportunities inherent in UPA development, offering a structured framework for future research and policy formulation aimed at fostering UPA.

4. Results

The results section is structured in a way to illuminate the foundational elements and UPA governance characteristics that lead to improved chances for innovativeness, place-sensitivity, and sustainability. The results are presented for each UPA developmental stage, followed by short and practical take-away lessons for policy-makers and practitioners.

4.1. UPA Governance Characteristics Towards Success

4.1.1. At the Initiation Stage: Actors, Goals, and Resources

Our case studies show that at the initiation stage the most important governance challenge is to *set out clear goals and to ensure all the actors involved have a common understanding and commitment to them*, while at a later stage achievement of UPA goals depends on leadership role and skills, the involvement of local authorities, and the broader political and cultural context. The initial goals of the cases studied fell into four broad categories: food production, greening urban spaces, social inclusion, and nature-based education expressing various place-sensitivity approaches. Not all initiatives achieve all their initial goals but many achieved positive outcomes that were not originally expected, thus confirming the nonlinearity of innovations.

Actors and initiators themselves do not have to have any specific profile: across the 15 cases studied, we found a diverse mix of actors – both directly involved in the UPA activities and external supportive organizations. Their skills and experience in farming vary widely. Urban farm initiators may have farming expertise alongside skills from other sectors like engineering, law, sports, and veterinary science. Initiatives, especially for-profit ones, such as zero-acreage farms (Belgium, Bulgaria, Bangladesh) may be started by professionals transitioning

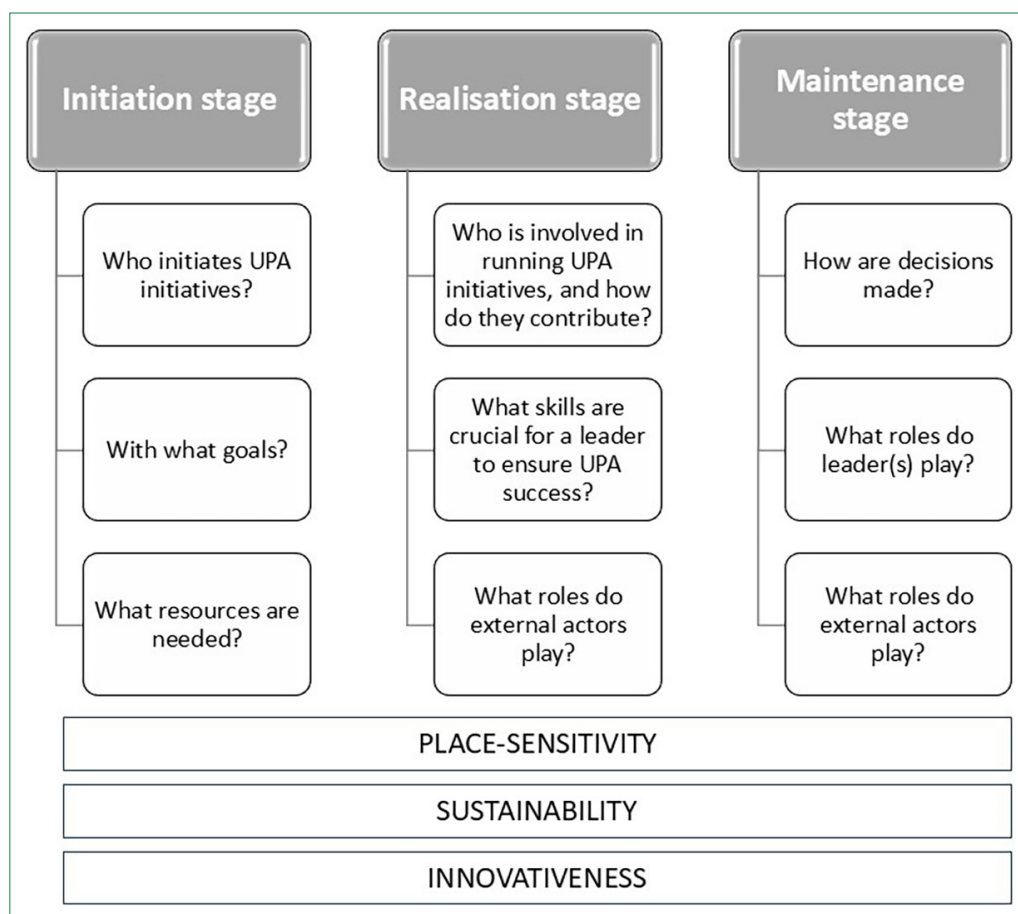


Figure 3. Three-stage approach to studying UPA governance characteristics and their outcomes in terms of sustainability, innovativeness, and place-sensitivity.

UPA: Urban and peri-urban agriculture.

from unrelated fields, driven by vision and determination rather than agricultural experience. Social farms (Bulgaria, United Kingdom), focusing on social benefits rather than profit, are initiated by individuals facing specific challenges or proactive organizations, regardless of their experience with agriculture. Community gardens (Greece, Italy, Bulgaria), DIY gardens (Portugal, Norway), and community parks (United Kingdom, Denmark) are established by passionate individuals such as environmental activists, landscape architecture students, or local municipalities in collaboration with EU-funded projects. Participants in these initiatives come from various backgrounds, including retirees, part-time or full-time employees, and individuals of varying social and financial status. For instance, social farms may involve patients from local hospitals or individuals with disabilities seeking physical and mental well-being through gardening. In community gardens and DIY projects, participants range from experienced gardeners to novices, all united by a desire to grow food and foster community connections. This diversity of actors and participants underscores the inclusive and multifaceted nature of UPA initiatives and reflects the needs of local communities.

Another important governance element at the initial stage of a UPA initiative is the conceptualization of *what resources it will need and how they will be secured*. Unless it is an already established initiative – whether for profit or not – that is generally only handed down through generations or institutions, the planning of funding and securing the needed start-up resources is crucial. In the cases where the initial undertakings were entirely based on voluntary work and informal engagement in the UPA activities, this “starter” energy could be powerful enough to sustain the activity and dedication of personal resources over a sufficiently long period (Denmark, Norway). This may include heavy physical work like clearing dead vegetation (UK, Norway), constructing gravel paths (Portugal), etc. and also networking efforts such as kindling enthusiasm for the initiative in the neighborhood, community building and fund-raising – and all this over at least one year (Denmark, Norway, UK). Still, all the cases show that no matter how enthusiastic and resourceful these initiators and “motivational” leaders are, their energy has limits and over a period of a few years most of them declare that they have lost their enthusiasm if they do not receive community support and meet with commitment

from other actors. Therefore, it is not the hard physical work but social limitations that appear to be one of the most important factors for UPA success. Alternatively, in the cases where initial external funding was secured at the very start due to supportive local or national institutions or private partners, this funding is also not unconditional. It requires constant efforts to secure it in the long term and, once again, community support is needed (Portugal, Greece, Bulgaria). Finally, in the case of for-profit farms, typically the zero-acreage ones, the initial investment is significant and most, if not all of it, comes from the personal savings of the investors. In one of the cases (Belgium) the two business partners quit their full-time jobs and risked all their savings in their UA vertical garden project, which resulted in their living in deepening stress over a period of almost a year. This creates insecurity that requires a lot of personal stamina and determination, not least because it affects the personal relations of the investors with their family and friends. Therefore, it is very important that at the initial stage all the people and organizations involved have a clear view of how they will deal with sourcing the initiative in its first stages (not least financially), but also to have strong and tangible community support, and relevant expertise.

Lessons learned:

- Clear goals and securing diverse funding sources are fundamentally important. By combining grants, public funds, and private investments, projects can enhance financial resilience and mitigate dependency on any single source. Crowdfunding and social investment funds attract diverse financial support while fostering community involvement and ownership.
- Early, strategic planning for human capital and expertise is crucial to sustaining project activities. Ensuring skilled personnel and knowledge supports long-term viability.
- Introducing advanced agricultural technologies such as vertical farming and hydroponics improves efficiency and sustainability, leading to better resource management and higher yields. Experimental pilot projects test and refine new ideas, promoting a culture of innovation and adaptability.
- Conducting community needs assessments ensures that initiatives address local priorities and challenges.
- Engaging local stakeholders in planning builds trust and collaboration, while respecting local traditions enhances cultural sensitivity and acceptance.

4.1.2. At the Implementation Stage: Leadership and Networking

The results indicate that UPA governance models seem linked to the type of initiative, with governance dynamics often shaped by the resources and capacities of those involved. While initiators frequently take the lead, in cases such as social farms (Bulgaria, UK), urban farms (Italy, Bulgaria, Belgium), and community gardens (Greece, Italy, Bulgaria), governance may

shift to other actors who contribute valuable resources or expertise. This variability in leadership and resource distribution is reflected in the three distinct UPA governance models identified in our analysis: top-down, bottom-up, and hybrid models.

Top-down governance is usually established by public institutions which aim to formalize UPA through regulations or which implement EU-funded projects related to agriculture and food (Portugal, Italy, Greece). For instance, an urban vineyard in Turin, Italy, is managed by the national Ministry of Culture, which also initiated the project. Public institutions often play a key role in creating and implementing guidelines that shape urban agriculture management.

Bottom-up governance involves gardeners making decisions about how the UPA initiative operates and distributing responsibilities among participants. Most of our bottom-up cases, excluding zero-acreage initiatives, are managed by individuals or non-profit organizations addressing specific place-sensitive issue. This model is commonly driven by environmental NGOs, activists, parents' associations, and new farmers. Biodiversity, health, and education are among the key place-sensitive issues that bottom-up UPA addresses. More specific goals are derelict urban land regeneration (UK), finding alternative outdoor playgrounds for children (Norway), integration of disabled adolescents (Bulgaria). Key internal governance features include a leader or a small leadership team that manages the UPA, makes decisions, and coordinates tasks. Decisions are then communicated to the broader group, with varying levels of involvement in decision-making. In some cases, a core group of three to five gardeners work closely with leaders, supporting decision-making and coordinating with thematic subgroups. This model, exemplified by "sociocracy" in urban woodland gardens (Norway) emphasizes personal responsibility, fostering ownership, and engagement. In zero-acreage UPA initiatives (Bulgaria, Belgium, Bangladesh) involving one to five individuals, decision-making is concentrated in the manager/owner or a close team due to the specialized nature of their operations. This focused approach is essential for efficient management, as seen in cases where a tandem acts as a single entity, reflecting strong unity and close personal relationships. Bottom-up initiatives thrive in both UPA-friendly policy contexts (such as Belgium, where UPA is supported not only administratively, but financially as well), and in countries where UPA is not supported by any policy (Bulgaria, Bangladesh).

The hybrid model combines bottom-up and top-down influences. In this model, gardeners make primary decisions but rely on top-down support for achieving goals and development. For example, a community garden might involve active gardener participation under municipal oversight, thus benefiting from access to land, provision of water, and support through external projects (UK, Portugal, Norway). Similarly, a social farm governed by a board of trustees, including ini-

tiators and stakeholders like charities and public administrations, demonstrates this approach (UK). Community park initiatives follow this model as well, where local institutions provide resources, training, and financial support (UK, Denmark). The hybrid model shows how certain actors, by offering resources like land, knowledge, or funding, can assume dominant decision-making roles. This dynamic illustrates that UPA governance leadership is not fixed; initiators may transfer governance to resource providers due to limitations in skills, knowledge, or administrative capacities.

Based on the present analysis, the hybrid model appears most successful at the implementation stage. It combines grassroots volunteer energy with political vision and commitment to UPA. Volunteers initiate actions and then seek material support from municipal or state institutions, which helps facilitate local ideas and initiatives. This approach fosters ownership and strengthens responsibility within the project. All hybrid governance initiatives enjoy a supportive local policy context, but this is still not enough for an initiative to flourish if it is not widely recognized by locals and they do not consider it to be valuable (Portugal). This is where the importance of effective leadership comes into effect and leaders who succeed in convincing the local community and policy-makers of the benefits of UPA have managed to secure UPA's sustainability in the long run (Denmark, UK).

Our cases underscore the vital role of UPA in understanding and engaging with policy frameworks, whether they function within supportive policy environments or in their absence. Proficiency in support mechanisms, regulations, and relationships with public administrators streamlines administrative processes, ensures legal compliance, and enhances governance efficiency. Collaborating with the policy context can provide access to critical information and resources, positively impacting initiative sustainability. For example, a community garden in Glasgow sought early support from local and national public authorities, securing resources like land and funding crucial for sustainability. In a zero-acreage initiative in Brussels a knowledgeable initiator, leveraging legal expertise, successfully accessed local funding for urban food production. Political advocacy by individual politicians also played a pivotal role in supporting UPA initiatives in regions lacking specific agricultural policies, emphasizing the significance of strong political relationships. Even in cases where grassroots representatives lacked personal political connections, lobbying skills and relationship-building with relevant institutions proved invaluable. These skills are essential for navigating public institutions, securing grants, and establishing credibility for future engagements with stakeholders like investors or clients. Training UPA managers in policy alignment and leadership goals, alongside experience in management and communication, fosters transparent decision-making processes and builds trust within UPA initiatives. Conflict resolution skills

are also crucial for internal governance, particularly in resolving disputes between leaders and non-leaders over objectives or farming methods. Successful conflict resolution involves acknowledging diverse perspectives and values to reach mutually acceptable decisions. An entrepreneurial spirit is a common trait among UPA leaders, enabling them to identify and leverage available resources for profitable or community-focused initiatives. Experience in running social-inclusion projects enhances communication skills and connections with supportive institutions. Municipalities with innovative, proactive officials can drive innovation, sustainability, and community engagement in UPA, offering creative solutions like tax waivers for infrastructure development.

Based on these findings we may conclude that the success of UPA initiatives depends on a multifaceted skill set that includes policy acumen, relationship-building with public institutions, entrepreneurial drive, conflict resolution abilities, and a commitment to community engagement. By navigating policy landscapes, leveraging resources, and fostering collaborative partnerships, UPA leaders can create sustainable and impactful projects that benefit both communities and the environment.

Another key element of UPA governance at the implementation stage is *the role of strategic partnerships* in the success of UPA initiatives, whether established early in planning or later in development. These collaborations not only grant access to vital resources but also foster community engagement and attract supporters to achieve shared objectives. For instance, social farms in our study formed partnerships with organizations sharing similar aims, such as the National Health Service, to integrate hospital patients into farming activities based on their physical abilities (UK). Establishing relationships with public administrations and local authorities proved essential for gaining support and recognition. Collaboration with diverse entities offers a range of resources that influence business success, from funding and expertise to policy support and visibility. There are some cases where the market is a more important context compared to the political situation. For example, the clients remain the most important external partnership for all zero-acreage farms. Therefore, where initiatives have been successful, they have managed to offer impeccable organization in the delivery process, and a nice-looking and tasty product for the end consumers. This skill goes hand-in-hand with the ability to take a risk, but also to assess the needs of the urban market, and one's own production capacities.

Lessons learned:

- During the implementation stage, forming strong partnerships with public institutions is essential. These partnerships can provide ongoing funding, regulatory support, and legitimacy, crucial for continued success.
- Active community engagement fosters ownership and long-term support for the project's goals.

- Efficient resource management practices, aimed at reducing waste and increasing productivity, contribute to sustainability.
- Continuously adopting advanced agricultural technologies is key to boosting productivity and addressing new challenges.
- Cross-sector collaborations with education, health, and business sectors give rise to diverse expertise and resources, enriching the project's impact.
- Tailoring governance models to local contexts ensures their effectiveness and relevance; aligning initiatives with local cultural practices enhances their acceptance and integration, and ensures the project meets local needs and priorities.
- Governance models that blend top-down and bottom-up approaches create inclusive decision-making processes, leveraging the strengths of both approaches.

4.1.3. The Maintenance and Development Stage: Sustaining the Momentum

While the first steps of a UPA initiative and the subsequent short-term implementation of its goals depend on a limited set of practice and governance characteristics, the factors for the success of these initiatives in the long run seem to be less easy to define. This is due to the prolonged influence of less evident contextual characteristics and a more intricate interplay between diverse actors' interests and needs, but also because of less predictable circumstances like economic, geopolitical, and even climate changes and crises. Still, the present data provides insights into some of the factors for long-term sustainability, innovativeness, and place-sensitivity.

While contextual factors provide a foundation for governance success, *internal governance characteristics – such as leadership and organizational dynamics – are equally important in mediating the influence of these external conditions.* Visionary leadership, as observed in social farms in Bulgaria, Belgium and in a DIY farm in Denmark, enables initiatives to navigate complex policy landscapes, foster partnerships, and mobilize resources effectively. Participatory governance models that emphasize inclusivity align closely with local needs, ensuring adaptability and sustained stakeholder engagement. However, weak leadership, rigid governance or lack of community support structures can hinder progress, even in favourable contextual conditions, underscoring the critical interplay between internal practices and external environments.

Different types of UPA initiatives exhibit unique dynamics regarding success factors and barriers. Community gardens thrive on grassroots participation and inclusivity, with success driven by strong community leadership, partnerships with local governments, and adaptability to local needs. In Scotland and Italy, community cohesion and volunteer networks were

critical for overcoming resource constraints, while alignment with municipal policies ensured access to funding and institutional support. However, barriers such as inconsistent policy frameworks, limited resources, and internal conflicts often restrict their scalability and sustainability, particularly in Greece, where formal governance structures are weak.

Social farms excel in integrating agricultural practices with social objectives, such as therapy or employment for marginalized groups. Their success depends on visionary leadership, robust governance mechanisms, and strategic partnerships. In Belgium and Bulgaria, social farms successfully leveraged collaborations with NGOs and public programmes to address socio-economic challenges and achieve financial sustainability. Yet, barriers such as insecure land tenure, limited legal recognition, and dependence on external funding expose these initiatives to economic fluctuations, necessitating adaptive governance to maintain sustainability.

Urban farms operate in more formalized settings, often having to comply with market requirements. Success factors include integration with urban food policies, strategic collaboration with public authorities, and effective market positioning. Urban farms in Italy exemplify how aligning with policy frameworks and maintaining place-sensitive governance enhances sustainability and innovation. However, these initiatives face barriers like regulatory complexity, competition for urban space, and reliance on market conditions, which can constrain their capacity to balance financial viability with local adaptability.

Both formal and informal decision-making processes may positively impact UPA in terms of their long-term success. Formal structures are usually represented by collective bodies, such as members of the board or associations which set goals, codify rules, and distribute responsibilities among the UPA initiative members (Bulgaria, UK, Denmark, Norway, Portugal). The rules and responsibilities are usually codified in written documents that provide management transparency, reduce the level of uncertainty among the initiative's members, and provide compliance of the initiative's activities with the various regulatory frameworks. However, practices without written rules and formal collective bodies can also have clear functions, responsibilities, and decision-making processes, especially in UPA initiatives with fewer members, such as zero-acreage farms. Although democratic decision-making is very common, some practices are steered by a leader, assisted only by a small group of practitioners without the participation of the rest of the members of the initiative (Greece, Bulgaria). Both types of decision-making could have a positive impact on an initiative's sustainability over time in terms of participants' dedication to the initiative, as long as all the members support the respective decision-making process, and they trust it.

Regardless of the type of decision-making process, *the role of the leader – be it an individual or a team – seems crucial in terms*

of sustainability and place-sensitivity. As during the implementation stage, having experience in management or in developing projects, knowledge of how to engage people and to solve conflicts, and the ability to use available resources, being able to identify external supporters and to form partnerships, are skills that ensure the sustainable development of initiatives and establishment of long-lasting, trusting, and solidarity-based relations among the participants. As leaders are such key figures in any UPA initiative, provided that they concentrate unique qualities, knowledge, connections, and expertise, it is a good strategy to share these with other members or supporters through training sessions, formal and informal meetings, inclusion in various activities and networking, in case the initiative has to part with its leaders for any reason (Denmark).

A key factor enhancing the place-sensitivity of an initiative that was revealed by our analysis is its inclusivity. Many initiatives actively engage citizens, businesses, and policymakers in their events, which builds social capital and increases visibility. Similarly, practices that involve sharing surplus produce and fairly redistributing it among members and their networks broaden the circle of participants and foster solidarity and trust. This practice of assessing needs and sharing resources strengthens community bonds. Knowledge-sharing with external actors can also attract new participants, expanding the initiative's reach and multiplying its benefits over time.

The specific location – an inner-city, peripheral or peri-urban setting – does not seem to have an influence on the beneficial outcomes of practices. Rather, it is the location's significance to the community that may influence its development. For example, selecting a location that ensures long-term protection or popularity is a practical strategy for attracting more participants and sustaining the initiative. This is the case with a community garden located near a municipal urban vineyard and orchard in Thessaloniki, Greece; it benefits from this proximity, thus providing a symbolic “protective umbrella” and increased visibility. Being in a busy area maximizes exposure to a diverse audience and helps gain broader public support when needed.

In summary, UPA partnerships enhance sustainability, innovation, and place-sensitivity through a two-way exchange of ideas, knowledge, skills, resources, and funding. While all these elements are crucial for an initiative's development, an initiative can temporarily function without some, except for human resources and funding. Funding is essential for acquiring seeds, materials, and services, which are often necessary for short-term operations. Therefore, maintaining a steady flow of human capital and adequate funding is critical for the initiative's long-term stability and success.

Human resources and human capital play crucial roles in UPA initiatives. In business-oriented models, such as urban farms, zero-acreage initiatives, and social farms, personnel are often paid for their work, whether through direct employment or

consultancy. Highly skilled operations or services may require experienced specialists, which can be costly. Conversely, when personnel can be trained in house, the primary requirement is efficiency and adherence to instructions.

A significant challenge arises when relying on volunteers who are not compensated. Even in business models, some initiatives depend entirely on voluntary work. The key issue is the sustainability of this model. For example, one case involved a dedicated volunteer who revived a century-old tradition of school gardens in Copenhagen, Denmark, working tirelessly for over a decade before securing long-term funding. Volunteers across all UPA types exhibit deep commitment, whether to nature conservation, community building, innovative agricultural practices, education, or social integration. This dedication often borders on idealism, driving substantial physical and mental efforts. However, such commitment is not infinite. Active volunteers may leave, especially if they engage in physically demanding tasks like site reclamation, construction, or extensive networking. Typically, a turnover of volunteers occurs every five to eight years, necessitating continuous recruitment efforts for long-term success. Building a network of skilled volunteers can sustain a UPA even if funding is reduced, as seen in a DIY case in Bergen, Norway, where a 50-strong volunteer network persisted despite the loss of municipal funding.

Securing long-term funding presents another challenge, especially for non-profit UPA initiatives whose beneficial outcomes are hard to quantify financially. Outcomes such as improved biodiversity, environmentally responsible behaviour, and enhanced social cohesion take time to manifest themselves, thus making the measurement of their value more complicated. One city's approach to addressing this issue involves asking practitioners to complete questionnaires on key performance indicators, helping authorities to track changes over time and justify continued funding (Denmark). In the case of for-profit UPA initiatives, securing initial funding from business angels can be effective (Belgium). In the long term, maintaining a successful UPA, meaning developing innovative and place-sensitive activities, involves building a reputation as a reliable and experienced entity, thereby attracting clients and partners. This process involves building trust with traders, consumers, and policy institutions.

Regarding policy context, UPA initiatives can achieve long-term sustainability and embeddedness regardless of specific supportive policies. Success depends more on grassroots engagement than on top-down support. Even when municipalities are indifferent or lose interest, active grassroots involvement can sustain activities (Bulgaria). Conversely, top-down initiatives have struggled to build community spirit if it was not already present (Portugal).

Lessons learned:

- At the maintenance stage, regularly adapting financial strategies is crucial for long-term viability.

- Maintaining active stakeholder engagement secures ongoing support, resources, and feedback necessary for sustaining the project.
- Encouraging a culture of continuous learning and improvement drives innovation and excellence.
- Feedback mechanisms refine practices, keeping the project responsive and effective. This includes regularly assessing the project's impact on the community and environment.
- Fairly distributing benefits among residents promotes social equity and cohesion, fostering a strong sense of community.

5. Discussion of Contextual Factors, Success Strategies, and Barriers in UPA Initiatives

5.1. Governance Models and Local Context: A Place-sensitive But not Place-determined Logic

While the governance of UPA initiatives reflects strong sensitivity to local contextual factors – such as land use regulations and zoning plans, institutional density, participation dynamics, and leadership structures – the results from the 15 case studies demonstrate that governance models are not determined by spatial location alone. Instead, they emerge through an interplay of cultural, political, and sectoral influences that shape how place is experienced and navigated. Hence, they are more strongly mediated by cultural norms, policy environments, and sectoral orientation (for-profit vs. not-for-profit).

Land availability and regulation are key structural elements influencing governance. Initiatives operating in contexts with high land regulation often require formal agreements with municipalities or private landowners. These arrangements typically lead to stronger institutional involvement, with local governments and NGOs playing critical roles in initiating and sustaining projects. In such settings, governance tends to be hybrid, combining grassroots energy with formal administrative support. Leadership is often held by NGO actors, entrepreneurs, or policy-savvy initiators – individuals capable of navigating complex bureaucratic systems and securing diversified funding streams. For example, a zero-acreage vertical farm in Brussels was initiated by two entrepreneurs who worked closely with municipal authorities to gain legitimacy and resources, although they did not use public land. Similarly, a community garden in Glasgow began with strong institutional support before transitioning to a more community-led model. A social farm in Bulgaria displays a comparable governance structure: community-driven programming supported by local government involvement and cross-sectoral partnerships. These cases demonstrate that hybrid governance can emerge in diverse contexts, especially where initiatives must balance institutional frameworks with the needs and capacities of local actors.

Participation levels vary depending on the mission and orientation of the initiative. Socially motivated projects – such as educational farms, inclusion-oriented gardens, or commons-based networks – tend to foster broader and deeper participation, especially when leadership emerges from within the community. Leaders in such cases are often teachers, small-scale farmers, social workers, or activists who have extensive knowledge of the local context and are able to mediate between grassroots goals and institutional expectations. NGOs and municipal bodies remain important, but their roles are more facilitative than directive, providing enabling conditions for community leadership to flourish. By contrast, initiatives driven by commercial goals – such as vertical farming or entrepreneurial food ventures – frequently adopt centralized, top-down governance models, prioritizing technical efficiency, scalability, and market responsiveness. This is evident in both Brussels and Sofia, where for-profit actors lead UPA initiatives with minimal community participation but strong logistical planning and investment strategies.

Across all cases, the evidence suggests that hybrid governance is not linked to physical location but emerges wherever initiatives are required to navigate complex stakeholder environments. The structure and style of governance are shaped more clearly by the initiative's mission, its legal and policy environment, and its leadership identity than by its spatial setting. *Governance models are place-sensitive in terms of institutional access, land tenure, and actor relationships – but they are not place-determined.* Governance types align more consistently with cultural, political, and sectoral factors than with geographical location. This finding suggests that effective governance models are transferable across contexts, as long as they are adapted to the specific institutional landscape, community culture, and leadership dynamics in which they operate.

5.2. Success Strategies: Aligning Governance with Context

Building on the understanding that governance models are shaped more by institutional and cultural conditions than geography, this section examines the key strategies that have led to successful UPA implementation. The results from our research show that the success of UPA initiatives is deeply influenced by a complex interplay of contextual factors such as local policies, social structures, and economic conditions. These elements significantly shape governance practices, determining the place-sensitivity, sustainability, and innovativeness of the initiatives.

Policies play a particularly pivotal role in enabling or hindering governance efforts. For instance, in countries like Italy and Belgium, well-integrated urban agriculture policies provide formalized governance structures that facilitate resource mobilization, sustainability, and innovation. These policies not

Table 4. Contextual success factors

Contextual success factor	Success strategy	Examples from case studies	Main contribution to success
Social structures	Leverage strong local networks for participatory governance	Scotland & Italy—Community gardens benefit from cohesive social ties and active civic culture	Enhances inclusion, adaptability, and a sense of place
	Address social fragmentation through targeted engagement and facilitation	Bulgarian social farms—Community conflict weakens participation	Social cohesion is key to stakeholder trust and sustainability
	Include marginalized groups to promote equity and social justice	Bulgarian social farms—Focus on vulnerable groups through community partnerships	Builds legitimacy and deepens social impact
Policies	Align with integrated urban agriculture policies for institutional legitimacy	Italy & Belgium—Strong policy frameworks support funding, partnerships, innovation	Enables scalability and long-term viability
	Adapt to weak or fragmented policy by building informal governance capacity	Greece & Bulgaria—Initiatives rely on grassroots innovation due to policy gaps	Grassroots adaptability offsets lack of institutional support
Economic conditions	Tailor governance to local economic realities	Italian urban farms—Combine economic viability with local market relevance	Balances financial sustainability with place-based relevance
	Use hybrid models to cope with limited resources and land insecurity	Bulgarian social farms—Combine formal and informal arrangements for efficiency	Optimizes scarce resources through flexible governance
	Sustain operations through volunteerism and non-monetary contributions	Scotland & Italy Community gardens—Operate with low funding, relying on shared labour and tools	Enables continuity in low-resource environments

only grant legitimacy to initiatives but also foster productive partnerships with public authorities, enhancing governance capacity and project scalability. In contrast, fragmented or absent policies, as observed in parts of Greece and Bulgaria, force UPA initiatives to rely on grassroots efforts and informal networks. While grassroots approaches can promote resilience, they often face challenges in scalability and long-term sustainability. Consequently, the alignment between governance models and supportive policy frameworks becomes crucial for achieving the intended UPA outcomes.

Social structures also play a central role in shaping the inclusivity and adaptability of governance practices. In settings with strong social networks, such as community gardens in Scotland and Italy, participatory governance models emerge as effective strategies for addressing local needs and ensuring inclusivity. These networks ground UPA initiatives in the unique cultural and social dynamics of their contexts, fostering a sense of place and addressing specific local challenges. By contrast, fragmented social structures or community conflicts, as observed in some Bulgarian cas-

es, can undermine stakeholder engagement, reducing both inclusivity and equity. The inclusion of marginalized groups in UPA initiatives, such as social farms, exemplifies governance practices rooted in values of equity and social justice, demonstrating how cohesive social structures contribute to meaningful and inclusive outcomes.

Economic conditions further shape governance practices in UPA. Governance models, such as those in Italian urban farms, rely on favourable market conditions to balance economic sustainability with local relevance. However, in economically constrained settings like social farms in Bulgaria, initiatives have to adopt hybrid governance approaches. These combine formal partnerships with informal practices to optimize resource efficiency, compensating for limited funding and unstable land tenure. Similarly, community gardens, often sustained by volunteer networks and non-monetized contributions, are shaped by local socio-economic realities. This underscores the importance of tailoring governance practices to specific economic contexts to ensure operational viability and sustainability (Table 4).

5.3. Barriers to Effective Implementation: Structural, Cultural, and Economic Challenges

UPA initiatives hold immense potential for fostering innovation, sustainability, and place-sensitivity. However, barriers often arise at various stages of development. Administrative hurdles, such as high transaction costs and complex approval processes, create significant challenges by making compliance resource-intensive. Socio-cultural barriers, including limited public awareness of the benefits of UPA, further stifle the adoption of innovative agricultural practices and technologies. Such obstacles limit the ability of UPA initiatives to fully realize their innovative potential.

Hybrid governance models, which blend grassroots volunteer efforts with material and institutional support, have proven effective in addressing these challenges. Leaders with strong interpersonal and political navigation skills also play a critical role in fostering innovation by engaging stakeholders, resolving conflicts, and forming strategic partnerships.

The sustainability of UPA initiatives is similarly constrained by economic and environmental challenges. Limited funding, resource access difficulties, and unpredictable weather patterns are significant obstacles to long-term development. However, structured decision-making processes that provide transparency and stability, combined with informal and democratic approaches that build trust and solidarity, are critical for resilience. Effective leadership and the ability to establish external support networks further ensure that initiatives remain adaptable to evolving conditions. A long-term vision and capacity for adaptation are thus fundamental to the sustainability of UPA projects.

Place-sensitivity, another essential component of UPA development, presents its own challenges. Many initiatives struggle with a lack of alignment between top-down projects and community needs. This disconnect often leads to reduced community support and participation, ultimately limiting the impact of UPA efforts. Enhancing place-sensitivity requires involving local residents in decision-making and project implementation, fostering community ownership and ensuring relevance to local contexts. Additionally, raising awareness and securing policy support are vital for creating an environment where place-sensitive initiatives can thrive. Sharing successful examples and facilitating knowledge exchange can inspire public authorities and community members to embrace the potential of UPA, thus enabling more tailored and effective implementations.

5.4. Contribution to Existing Research

The findings of this article build on and contribute to the existing body of literature on UPA, particularly by addressing governance models and their implications for sustainability, in-

novation, and place-sensitivity. They highlight the pivotal role of governance structures in shaping UPA outcomes, confirming insights from Lohrberg et al. (2016) and Cassatella and Gottero, (2025). Participatory and hybrid governance models foster adaptability and community engagement, aligning with the emphasis of Jansen et al. (2006) on inclusive urban management. This study extends prior research by illustrating how formal institutions and grassroots actors interact within hybrid models to promote resource-sharing and long-term viability.

The study also emphasizes the critical role of local policy environments. While supportive policies enhance top-down governance, grassroots engagement often compensates for weaker institutional frameworks. This finding expands on the work of McClintock et al. (2021). Hybrid governance emerges as a key enabler of innovation, facilitating collaboration among diverse stakeholders such as policymakers, entrepreneurs, and community groups (Specht et al., 2014; Thomaier et al., 2017). Furthermore, the contributions of UPA to social and environmental innovations, such as addressing food security and social inclusion, reinforce the arguments of Mok et al. (2014) and Orsini (2020) for context-sensitive approaches.

Place-sensitive governance, prioritizing local engagement, cultural considerations, and tailored solutions, is shown to foster higher levels of social cohesion and ownership, building on Prové (2018) and Jansma et al. (2024). Governance models that emphasize local engagement, cultural considerations, and tailored solutions to urban challenges foster greater social cohesion and community ownership. These findings support existing research on the contextual nature of UPA success (Lovell, 2011) while providing concrete examples of how governance frameworks can either enable or hinder place-sensitive practices. This study also highlights the complementary role of informal networks, particularly in contexts lacking formal support systems, extending earlier findings by Lohrberg et al. (2016). Crucially, while context is significant, it should not be a barrier to UPA development. Community engagement and strong, committed leadership remain the foundation of every initiative, regardless of external conditions.

By situating these findings within the broader scientific discourse, this article deepens the understanding of UPA governance. It confirms existing theories on participatory and hybrid governance while broadening the discussion to include themes such as informal networks and the critical adaptability of governance through leadership and community involvement. The paper has also demonstrated that there is no single best governance model that brings desired outcomes to urban and peri-urban areas. Instead, diverse, adapted, and flexible governance models can be applied, depending on the goals of the initiative (for-profit or not-for-profit oriented) and the commitment level of the various actors.

6. Conclusion

Our findings emphasize the need for UPA initiatives to be supported by robust governance structures deeply rooted in local contexts to ensure their longevity and the achievement of desired outcomes able to address urban challenges. Regardless of their type or location, UPA initiatives offer innovative, place-sensitive, and sustainable solutions. Supportive policy environments, such as those in various cities in Italy, Belgium, the UK, Denmark and Norway provide institutional frameworks and resources that foster sustainability and innovation. In contrast, fragmented or absent policies, as seen in cities in Greece and Bulgaria, force initiatives to rely on grassroots-driven governance. This underscores the importance of tailoring governance approaches to local contexts. For example, strong community networks and social cohesion, as demonstrated in the United Kingdom and Italy, support participatory governance practices, while areas with social fragmentation, like Portugal and Bulgaria, benefit from more targeted top-down approaches. The findings provide actionable insights for policymakers, practitioners, and researchers seeking to enhance the sustainability, innovativeness, and place-sensitivity of urban agricultural initiatives.

This study further underscores the critical role of governance adaptability through committed leadership and strong community engagement in the success of UPA initiatives across diverse settings and settlements. Governance models must be adapted to local socio-economic, cultural, and policy conditions. Participatory approaches thrive in cohesive communities by engaging residents in decision-making, while fragmented settings often require stronger institutional support. Hybrid governance models that blend grassroots energy with institutional resources have proven particularly effective, fostering innovation, inclusivity, and sustainability by balancing local ideas with access to necessary resources.

Leadership and strategic partnerships are also essential for the success of UPA initiatives. Visionary leaders who build collaborative networks and navigate complex policy landscapes ensure that initiatives remain adaptable and resilient over time. Inclusive practices, such as sharing resources and incorporating local knowledge, strengthen community bonds and align initiatives with local needs, enhancing both place-sensitivity and equity.

Despite their potential, UPA initiatives face challenges such as limited resources, administrative complexities, and weak policy support. Those who rely on temporarily limited funding projects suffer long-term financial uncertainty. Innovative funding mechanisms and cohesive policy frameworks are vital for overcoming these barriers. By addressing these challenges and leveraging governance adaptability, UPA initiatives can deliver sustainable, innovative, and context-sensitive solutions to urban challenges.

While contextual factors such as policies, cultural values, and socio-economic conditions provide a critical foundation for the success of UPA initiatives, our findings emphasize that they do not necessarily determine outcomes. The adaptability of governance practices to local conditions plays the most pivotal role in driving success. Regardless of whether the context is supportive or fragmented, UPA initiatives can overcome challenges through responsive governance, strong leadership, and innovative approaches. This adaptability ensures that even in less favourable conditions, such as weak policy environments or social fragmentation, initiatives can still achieve sustainability, place-sensitivity, and innovation. The ability of governance structures to influence and navigate local contexts reaffirms that, while context matters, a non-UPA supportive environment is not necessarily a barrier to the development and success of UPA initiatives. This highlights the transformative potential of UPA governance to not only adapt to but also shape challenging contexts, proving that with responsive and innovative approaches even the most difficult environments can become fertile ground for sustainable and impactful UPA initiatives.

The findings affirm that governance models in UPA are not rigidly tied to spatial or geographical determinants, but are instead shaped by adaptable interactions between institutional settings, cultural norms, and leadership practices. This confirms the broader applicability of successful governance models beyond their original settings. By focusing on adaptable, hybrid approaches that combine grassroots participation with institutional support, UPA initiatives can be tailored to diverse local contexts. This place-sensitive yet non-place-determined logic strengthens the case for policy learning and knowledge transfer across cities, enabling more inclusive and resilient urban food systems.

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