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Assessing the effects of commercial applications of urban agriculture practices in the Parisian cityscape through an analysis of two actual real-life cases.

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Abstract:

Over the past few years, urban agriculture in cities has witnessed growing interest due to its potential benefits in terms of economic, socio-cultural, public health and environmental development (Santo et al., 2016). There is also an increasing interest in the significant contribution that connecting with nature can make to our mental health and well-being, improving population health, lowering food costs and building sustainable cities, highlighting the need to recognize the multifaceted role of implementing urban agricultural practices in fostering a more sustainable lifestyle and reinforcing local communities and engagement (Boukharta et al., 2024). This article presents two case studies of the involvement of urban practices with an economic vocation in the French capital Paris, in order to evaluate, besides the social and environmental effects that these practices bring, their economic effects on the project owners and their effects on the government. This was achieved by carrying out interviews with various stakeholders, including project managers, officials from city halls, municipalities etc., in order to gain a more in-depth analysis of their effect on the population and the city, as well as to assess their mode of governance. The results obtained show that these urban agriculture projects are becoming more widespread throughout the city, helping to secure purchasing economies and increase the number of people employed, and where the French government supports and encourages their development within the city, as the interviews also show that they have good relations with the local and national authorities, helping them to achieve their aims, through the provision of subsidies and other assistance.

Keywords: Urban Agriculture; Sustainable development, food security, Paris, France

I- Introduction

The United Nations Human Settlements Program has estimated that 60% of the population will live in urban areas by 2030 (UN-Habitat, 2011). For this reason, urban Agriculture in cities has attracted growing interest due to its potential benefits in terms of socio-cultural development, public health, environment, and the economy (Santo et al., 2016). Furthermore, Urban Agriculture is also increasingly seen as an essential component of food security, and is regarded as a highly promising pillar of food supply, which ensures a reconnection to nature (Paganini and Lemke, 2020).

The objective of this research article is to analyse the alignment between governance structures, stakeholder involvement and the benefits of Urban Agricultural Projects, through the evaluation of decision-making, the cost and benefit that such projects require, as well as the distribution of the value created, together with the benefits this brings to the population and the city itself.

two urban agricultural practices with an economic vocation in Paris, namely “la Caverne” and “Veni-Verdi”. The first is an urban farm growing organic mushrooms in an underground garage and where production is sold entirely, and the second is a for-profit association that creates urban spaces within schools to enrich students’ knowledge and selling production.

This research paper is first establishing an analytical framework to facilitate understanding of the various concepts that will be used in the remainder of the paper. Then the methodology, which consists of conducting interviews with a numerous stakeholder, along with fieldwork, and which is leading to the results section. Finally, the discussion will be based on a critical evaluation of the results, contrasting with other researchers work, followed by a series of conclusions

II- Concepts and analysis

Understanding this document requires prior knowledge of a number of key concepts and fundamentals, since understanding them is essential to correctly analyzing and evaluating the results obtained. Urban Agriculture is the cultivation, processing and distribution of food products by growing plants in and around cities (Poggi et al., 2021). Indeed, it is considered as an important component of practices aimed at food sovereignty and the protection of urban ecosystems (Opitz et al., 2016), providing a variety of social, economic and environmental services within urban territories (Chalmin-Pui et al., 2021; Scott et al., 2020), as the requalification of abandoned areas such as urban and industrial spaces is a process that can make the cities more resilient (Gros-Balthazard, 2018), leading to the creation of new green and public spaces, and the development of new economic and cultural projects and activities (Childers et al., 2000). Regarding the governance, it can be seen as the system of strategic processes and inputs, as well as appropriate institutions, regulations, and interactions, that enable effective policymaking (OECD, 2015), implication in a multilevel approach. Indeed, assessing urban agricultural practices requires an

analysis of the governance of Urban Agriculture and its stakeholders to better understand the appropriate governance processes. For this, it is necessary to consider three levels of complexity that have an impact on governance processes, such as the public policies power and capacity to act etc. (Prové et al., 2015).

Regarding the analysis, the present research paper focuses and analyses, for each case study, the results for the three dimensions of environment, economy and human/social aspects, in order to better understand the distribution of the value created and the resulting benefits, together with the proper understanding of the alignment between governance mechanisms and stakeholder involvement.

III- Methodology:

For the purpose of this work, two economic case urban agricultural cases were selected: "la Caverne: urban farm" and the "Veni Verdi association", both located in the center of Paris, as shown in Figure 1:

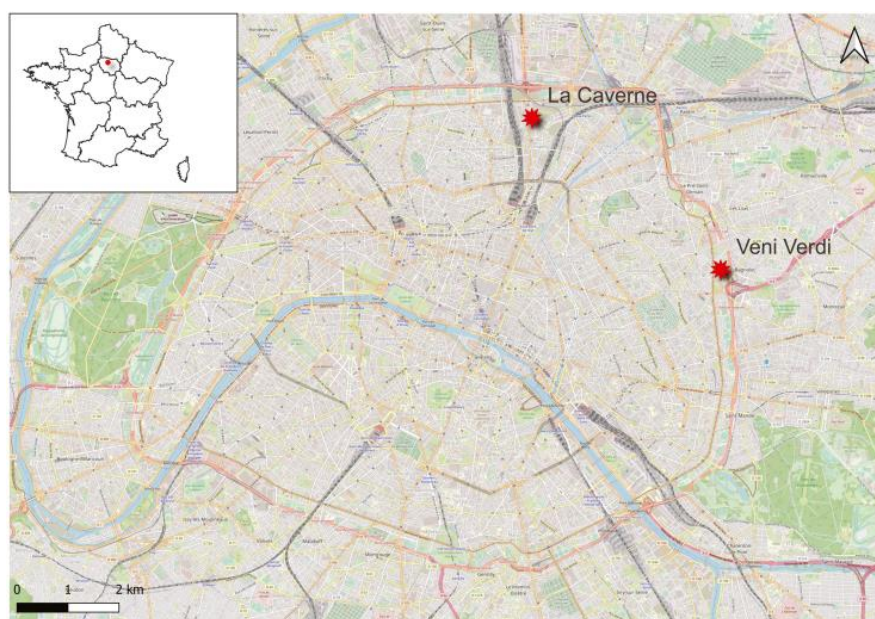


Figure 1: Location of the initiatives evaluated in Paris. Made using QGIS Software (Source : Boukharta et al., 2024)

Each case has been carefully and precisely chosen to address and apply the aspects most relevant to our research. With regard to both analysis and data collection, in-depth interviews were conducted with a wide range of stakeholders, including project managers, employees, farmers, participants, etc., to gain a better understanding of the structure and objectives of each project, which would enable better analysis and interpretation of the results. All interviews were recorded vocally (with the interviewees' permission) and transcribed for further analysis. The resulting data were processed using NVIVO software, widely recognized today as an effective

tool for processing data related to qualitative and mixed methods (NVivo, 2019; Zamawe, 2015).

IV- Results and Discussion:

The Cavern is a private urban farm located in Paris, dedicated to the transformation of abandoned underground parking lots into redeveloped spaces, focusing on mushroom production. It was launched following its acceptance of the *Paris-Culteurs* call for projects in 2007, aimed at introducing agriculture into the city (Table1):

Table 1: Activities and urban practices employed within Urban Agricultural cases analyzed.

Governance structure		Paris "La Caverne"	Value chain and governance structure		Paris "Veni Verdi"
Type of structure	Enterprise	x	Type of structure	Enterprise	
	Profit-making association			Profit-making association	x
	Non-profit-making association			Non-profit-making association	
Financial support	State	x*	Financial support	State	x
	Metropolis			Metropolis	
	Town hall/City			Town hall/ City	x*
	Private			Private	x
	Membership/volunteers			Membership/ volunteers	
Cost management	Deputy Treasurer/Finance	x	Cost management	Deputy Treasurer/ Finance	x
	Director			Director	
	Town hall/City			Town hall/ City	
Stakeholders/ administrative office	President and Director	x	Stakeholders/ administrative office	President and Director	x
	Management office	x		Management office	x
	Salaried employees	x		Salaried employees	x
	Interns	x		Interns	x
	Trainees			Trainees	x
	Members with plot			Members with plot	
	Members without plot			Members without plot	

* Financial entity. Source: Boukharta et al., 2024

* Financial entity. Source: Boukharta et al., 2024

The "Veni Verdi association" was set up in 2010 in the 20th arrondissement of Paris by the French Metropolis, with the main aim of establishing gardens on school rooftops or in the open ground, to raise awareness among young people.

The main objective is to provide sustainable food, while building a territorial network to ensure a circular economy and short supply chains (Table1).

Several aspects of governance were assessed during the interview. Firstly, the type of governance structure is not the same for the selected case studies, where the Cavern is a 100% economic enterprise, while Veni Verdi is half economic and half social. In financial terms, the Cavern is fully supported and funded by the state and claims that these subsidies are "sufficient", while "Veni Verdi" claims to receive numerous grants, which have to be renewed each time the association is taken over to ensure its sustainability. In terms of cost management, there is much in common between the various entities, namely that they all have a treasurer who

handles cost management, as well as the town council in some cases.

In both cases, the structure of governance mechanisms is well defined and respected, enabling these stakeholders to identify their needs, both in administrative terms and in terms of task implementation and project progress.

The results obtained clearly show that local and national authorities support the development of urban agriculture, as well as the involvement of communities at local level in the provision and conservation of space for urban agriculture, and access to this land to provide numerous benefits such as the supply of fresh food and vegetables.

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