



## Policy Paper

# Towards sustainable food systems in the Mediterranean : the role of metropolitan agriculture



Project co-financed by the European Regional Development Fund



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## 1. PREFACE

Urban and peri-urban agriculture is a key element for the development of sustainable local food systems in Mediterranean metropolitan areas. In spite of its growing recognition, **metropolitan agriculture still suffers from a lack of consideration in public policies**, which prevents it from consolidating successful models, exploring alternative food supply chains and reaching a wider group of consumers.

The importance of this issue is best exemplified by the signature in 2015 of the Milan Urban Food Policy Pact, a commitment to develop sustainable, inclusive, safe and resilient local food systems adopted by more than 100 cities across the globe. The Pact has since become an international benchmark for tackling food-related issues at the urban level, and metropolitan agriculture is one of the key aspects in the recommendations and good practices shared within its community.

In line with this and other reference documents, **this report addresses urban and peri-urban agriculture from a critical, proposal-oriented perspective and with a special focus on Mediterranean metropolitan areas**. Building from existing knowledge and successful practices in the region, the document is aimed at giving a clear and succinct overview of the main challenges and opportunities of this issue. In addition to that, a number of inspiring examples are also presented along with a series of recommendations for public action to pave the road to sustainable metropolitan agriculture.

### **MADRE: A territorial cooperation project to change metropolitan food systems in the Mediterranean**

This report has been developed in the context of MADRE (Metropolitan Agriculture for Developing an innovative, sustainable and Responsible Economy), a European Interreg MED project developed through 2017 and 2018 with the aim to capitalize existing good practices, empower different stakeholders in urban and peri-urban agriculture and initiate a dynamic of transnational cooperation in the Mediterranean region.

MADRE's partnership is composed of a multidisciplinary group of institutions from 6 flagship metropolitan areas:

- Marseille (France): Agency for Sustainable Mediterranean Cities and Territories (AVITEM) and ANIMA Investment Network
- Montpellier (France): Mediterranean Agronomic Institute of Montpellier (CIHEAM IAM)
- Bologna (Italy): Metropolitan City of Bologna
- Barcelona (Spain): MedCities
- Thessaloniki (Greece): Aristotle University of Thessaloniki
- Tirana (Albania): Agricultural University of Tirana

For more information about the project, you can visit: <https://madre.interreg-med.eu/>

## 2. THE IMPORTANCE OF URBAN AND PERI-URBAN AGRICULTURE IN THE MEDITERRANEAN

Urban and peri-urban agriculture (also referred to as metropolitan agriculture) comprises the set of infrastructures and practices that support farming activities located in close proximity to urban settlements, on the urban fringes or inside the city itself. Because of its productive activity, **urban and peri-urban agriculture can be a central element of local food systems** –the assemblage of elements and relations that determine the production, distribution and consumption of food in a specific city or metropolis.

The preservation and development of metropolitan agriculture is more important than ever in the current context of global environmental change and an ever-urbanizing planet –according to the UN, 6.3 billion people are expected to live in urban areas by 2050, 2.5 more than today. Along with rivers, forests and other natural elements, urban and peri-urban agriculture constitutes a **balancing element between urbanized and non-urbanized land** in metropolitan areas. It represents an activity of special importance for the **supply of fresh produce and food security**, but it can also be a **viable economic sector with many side benefits** in terms of employment creation, poverty alleviation, social inclusion, marketing innovation, generation of data for academic research, and others. On top of that, metropolitan agriculture provides a number of non-monetary **social and environmental services**: biodiversity habitats and connections, landscape and aesthetic values, support for leisure activities, mitigation of climate threats, etc.

In spite of all this, metropolitan agriculture is at serious risk of disappearing or becoming irrelevant in many regions. The declining economic importance of the agricultural sector in developed countries and the competition over different land uses has led to a **decrease in the number of farmers**, mostly small landholders, in urban and peri-urban areas. This process echoes the worldwide struggle of small peasants against land and crop concentration and the industrialisation of agriculture. In metropolitan contexts, the diminishing viability of small and medium-sized exploitations is linked to a weak bargaining power of small farmers, even when collectively organised, compared to that of big agricultural enterprises and other economic stakeholders.

**Mediterranean metropolises are embedded in these global dynamics.** The impact of climate change –especially relevant to the use of water and the appearance of new pests, which have led to the experimentation of new agricultural techniques– or the competition over land uses – strongly linked to demographic pressure in coastal areas, where most Mediterranean big cities are– are some of the region's specificities, as is the fact that **peri-urban agriculture still has a significant presence due to a long-established history of economic, environmental and cultural relationships** between the population and the rural world.

Here, as in many other places, it is necessary for metropolitan stakeholders to make informed and determined policies and actions. The preservation of metropolitan agriculture and its multifunctional dimensions depends on the **commitment of the different parties to a model that brings together social agreement and economic viability**. Small farmers and civil society have adopted a leading role in this effort to support local agriculture and address distribution systems that reach a fair price both for producers and consumers. Public authorities should adopt an equally active stance by committing to support urban and peri-urban producers and encourage social and economic innovations in this field.

## 3. HOW TO FOSTER METROPOLITAN AGRICULTURE : KEY ISSUES AND GOOD PRACTICES

### 3.1 Incorporating metropolitan agriculture into legal frameworks

Most of the current legislation in Mediterranean countries lacks specificity and clarity with regard to the different forms of agriculture, failing to distinguish, for example, between urban and rural or professional and non-professional activities. **Existent regulations often have a poor capacity of adaptation to the innovative practices upon which many urban farming projects rely**, such as short supply chains or participative certification methods, a situation that leads to severe constraints in the development of urban and peri-urban agricultural initiatives. Such constraints arise from a diversity of situations, as in land use regulations that do not contemplate the production or processing of food in urban areas or the impossibility for small projects (farms, shops, restaurants and other initiatives) to comply with legal requirements that are designed for much bigger enterprises.

Consequently, the adoption of **appropriate normative environments is essential in order to foster sustainable and resilient local food systems**. Action is needed at all levels: EU common directives, nation-wide or regional laws and local regulations should all take into account the specificities of urban and peri-urban agriculture.

### 3.2 Making food an integral element of strategic planning

The multifunctionality of urban and peri-urban agriculture does not fit well into compartmentalised structures and managing systems. Relegating the issue to agricultural departments, plans and policies –central as they may be– diminishes its potential to transform the whole food system. On the contrary, **more transversal approaches foster the synergies between farming initiatives and other policy areas** like poverty alleviation, waste reduction or social inclusion.

Because of the complexity of food systems, **including metropolitan agriculture in strategic planning** is particularly important to counter this risk of compartmentalisation. The middle to long-term vision of strategic plans fit well into the slow development of most farming projects and gives them a certain degree of security over the rapid-changing public programmes. Successful metropolises are those who acknowledge food as a central element in many of their **strategic sectorial plans** –not only in agriculture, but also in health, education, economic and social sectors, among others– and, perhaps even more importantly, in their strategic territorial planning. The latter type of plans deal with those elements that structure the metropolis and, by doing so, shape the material conditions of local food systems.

Both kinds of strategic planning, sectorial and territorial, face the **challenge of being consistent across different territorial scales**. Since the flows of local agricultural produce often extend further than cities and even metropolitan areas, thinking in terms of food systems is crucial to formulate metropolitan plans and policies that engage with all the relevant stakeholders, both public and private, and fit into broader policy schemes.

### Example 1

#### Territorial Food Project (Marseille, France)

The Territorial Food Project (PAT) of Bouches-du-Rhône was initiated by Aix-Marseille Provence Metropole and Pays d'Arles in the context of a national call for projects launched by the Ministry of Agriculture in 2016. The initiative aims to bring together representatives of the entire agricultural food chain in a continuous, 4-year diagnostic process (2017-2020) in order to promote a large number of public and private activities. The design of the project and its programmes holds a wide perspective of the food chain, covering issues from health and nutrition to food accessibility and cultural heritage, resulting in a very good example of making food an integral element of strategic planning at a regional level.

## 3.3

### Protecting agricultural land and facilitating its access to local initiatives

Arable land is an increasingly scarce resource in urban and peri-urban areas, where competing land uses for residential and industrial growth or infrastructure construction represent one of the main threats to local agriculture. The case is particularly serious on the Mediterranean coastlines, where demographic pressure meets metropolitan areas already heavily developed. To address this issue, there is a **need to develop policies aimed at discouraging speculation over land-use change and to strengthen the protection of agricultural land**. Special taxations on land sales, agricultural parks, protection perimeters and public purchase of land are some of useful measures to that end.

Protecting agricultural land, however, has little effect if the land is not exploited. A major constraint for new farming initiatives, both in urban and peri-urban areas, is the **difficulty to gain access to arable land at affordable prices and adequate conditions**. Public authorities have a range of possibilities to encourage and support the access to land for citizens who plan to start farming-related initiatives in difficult land tenure contexts: land banks, rent of public land under market or subsidized conditions, facilitation of land stewardship contracts, lines of credit for new projects, etc. Each model of public-private agreement may be appropriate for a different set of conditions regarding land structure, cultural factors, and socio-economic context.

A particular opportunity for facilitating new projects while preserving or even increasing agricultural land is the **rehabilitation of unused or abandoned spaces**. Whether they are on public or private land, local authorities can play a fundamental role in the development of food-related initiatives as educational farms, urban gardens, logistic facilities, cultural centres, and so on. These have a high potential to regenerate abandoned areas and foster community-building practices, especially if civil society is involved in the process of definition, installation and management from the beginning.

### Example 2

#### Baix Llobregat Agrarian Park (Barcelona, Spain)

The Baix Llobregat Agrarian Park was created in 1998 to counter the pressure on agricultural land in the River Llobregat Delta resulting from the urban and industrial expansion of Barcelona and its neighbouring cities. It covers a total area of around 3,490 hectares, mostly of private tenure, spread over 14 municipalities of the Metropolitan Area of Barcelona. Thanks to its solid public-private management model and the strong political commitment of local authorities, the Park has successfully fostered local production maintained and protected a significant amount of agricultural land in an area that suffers a continuous pressure for land-use change. Its broad governance structure ensures the correct adaptation of the park's regulations, the development of marketing campaigns for local farmers and the contribution to foster sustainable farming practices.

## Supporting viable and sustainable economic models

The implementation of viable economic models suitable to the needs of farmers and consumers might be the most challenging issue regarding urban and peri-urban agriculture. Small landholders have weak bargaining power when facing large retailers, even if they are organised within producers' unions or cooperatives, which results in a low level of income for farmers. As a result, the amount of small-scale farmers is rapidly diminishing, being replaced by large-scale industrial farming, which has the economic and politic power to overcome these challenges. There is therefore a need to restore small scale agriculture economy in a way that allows to **break power structures and democratize economic relations** between small-scale producers and large retailers. In this sense, it becomes crucial to **support community-led projects**, especially when they start, either financially (grants, tax breaks, etc.) or through other forms. It is also important to **provide economic and legal assessment** for new projects since usually there is a lack of expertise, mostly in the distribution and commercialization systems. Some urban and peri-urban farming initiatives are already being supported by public administrations, but still a lot of them struggle to achieve economic and social sustainability in a mid and long term basis and need support, not only at their start, but at different stages of their development.

One way to improve long-term sustainability is to **recognize**, mostly from an economic perspective, **all non-trade benefits of sustainable agriculture**, since they go far beyond food supply. These include, among others, environmental protection, landscape preservation, food security, rural-urban connectivity, and social empowerment. It is important to integrate these social and environmental benefits in form of added value, be it directly monetary value or through other methods, so sustainable practices can differentiate themselves from conventional systems. Some examples of this are **to create labels that provide information of this added value or use environmental compensation mechanisms** which promote sustainable practices while providing economic viability to productive projects.

An important bottleneck for farmers are logistic systems, since most alternative supply chains are based on informal mechanisms where farmers undertake the majority of these tasks, resulting in a lack of time and resources. There is a need to **professionalize logistics**, provide economic and technical support in these issues and **open public spaces** so farmers and consumers can overcome this bottleneck.

Finally, public procurement regulated under sustainable criteria could make a strong impact on the economic viability of local projects. It can also help stimulate a critical mass of demand for more sustainable goods and services which otherwise would be difficult to get onto the market. In this sense, there is a need to **include clear and verifiable environmental criteria for products and services in the public procurement process** that help accelerate demand for local products and drive the market towards a more sustainable paradigm.

### Example 3

#### Menjadors Ecològics (Catalonia, Spain)

Menjadors Ecològics (Organic Dining Rooms) is a non-profit association created in 2013 as a response to a study conducted in the region of Catalonia which showed that only 40 out of its 2,800 schools had an organic canteen. The organisation has since worked for providing support and training to all the parties that are involved in the process of transforming school canteens into organic (cooks, parents, directive staff, children, etc.). That includes both public and private schools. Its members work in close relation with local farmers from the surroundings of each school, and after some years they succeeded in offering a wide range of training activities, such as workshops, talks and events. The main innovation of this initiative is considering schools as an essential link in the agri-food chain and its role in the transformation of the whole food system.

### Example 4

#### Terracoopa (Montpellier, France)

Terracoopa is a joint initiative between a regional and a local associations from Montpellier that supports job creation related to organic farming and short distribution channels. With the legal form of an entrepreneurial cooperative, its activity is centred on a 10 ha plot of land offered by the Montpellier Metropolitan Authority in which new farmers can start their activity in a responsible and autonomous way, over a limited time period, within a framework that limits risk taking. Farmers can evaluate their project and ability to carry it outside the agricultural test area with the support of an agricultural engineer. In addition, Terracoopa offers specific services to all projects related to organic farming, urban and peri-urban agriculture, local food supply, landscape, water management, environmental protection, etc.

## 3.5

### Localizing food systems

Localizing food systems is one of the top priorities in order to create sustainable links between producers and consumers. **Implementing alternative food production-distribution-consumption configurations** for a better sharing of added value, avoiding high power structures and intermediaries through economically and socially fair relations becomes central to reach that aim. This broad range of configurations regarding short distances or few intermediaries between producers and consumers are mainly referred as short food supply chains.

In the present context where local and organic food is increasing in popularity, there is an important concern regarding the possibility to **scale up these alternative networks**. In other words, the ability to handle a growing amount of demand, or its potential to be enlarged to accommodate that growth. In this sense, there is no clear consensus on which kind of structures and organisational models are more convenient in order to answer to this increasing demand, especially regarding the amount of necessary intermediaries and the specific characteristics of the consumer-producer relation.

Taking into account this lack of consensus, it is important to **study the flow of local food systems** regarding these different models and see which one is more convenient for each situation and which criteria should be followed in order to make it a real alternative. This analysis should pay special attention to which extent these configurations can brake power structures, create socially and environmentally sustainable relations and improve farmers' income while being capable of satisfying high density cities. Local public authorities should **act as facilitators** in this framework, in order to foster this debate, **make easier administrative procedures** and **open spaces** so this kind of models, if it is seen appropriate by producers and consumers, can keep on growing and replicating.



## Improving the governance of food systems

Active engagement from a wide range of stakeholders and community as a whole is a key aspect in good governance of food systems. A substantial step in order to achieve this wide range engagement is to **integrate participation into policy making**. In other words, it is necessary to bring people in, to let them get into the policy making. However this approach encounters a series of difficulties, such as finding appropriate ways to achieve diverse and active participation of non-public stakeholders, coordinating participation in different structures and across different territorial levels or taking into account the diversity of stakeholders when planning participatory processes, among others.

A general approach to overcome some of these difficulties is to **work with the ‘meet in the middle’ approach**, which is a hybrid approach mixing top-down and bottom-up governance. Good implementations of this approach will let policy-makers see tangible and viable results while making room for civic engagement and the emergence of ideas and issues that do not necessarily derive from the framework strategy or master plan. A key part of participatory methods regarding food systems is their ability to **work with a wide range of stakeholders**, due to the huge diversity of actors and topics involved in the food chain (agriculture, education, energy, health, social inclusion, etc.). This approach is useful not only to address food systems properly, but also to create fruitful links with organisations from other departments and areas.

Finally, another way to deal with participation is to **promote forms of food democracy** – ways to take into account the preferences and ideas of citizenship that are different from participatory processes, meetings and consultations. These alternative forms of participation are less linked to talking and discussing and are closer to concrete, practical options, such as the facilitation of community-based initiatives (consumer cooperatives, associations for supporting agriculture, cooperative supermarkets, etc.) or systems that ensure transparency and enhance individual responsibility.

### Example 5

#### AMB Working Tables (Barcelona, Spain)

Barcelona's Metropolitan Authority (AMB) has used working tables for some time (especially in the case of mobility). They put together groups of decision-makers, scientists and researchers, and civil society. They meet regularly to speak about a series of problems (problem-oriented meetings) and this way strong opposition between certain actors about a specific issue is often softened (because they talk about other issues as well, and because there are other more-neutral people there). The outcomes of these meetings can be made public but they are not enforceable (they support the decision-makers).

## Adopting effective communication and awareness raising strategies

A central concern regarding the promotion of local food systems is how to **adopt effective communication strategies**. A proper communication plan can help to engage effectively different stakeholders, generate a feeling of co-responsibility for the issue and thus generate a meaningful social impact. On the contrary, poor or misguided strategies can be a waste of resources and undermine the relevance of information that wants to be disseminated. Without proper budgets, communication campaigns have to be even more well-designed and imaginative, so there is a need to **provide sufficient funds to communication programmes and design strategies accordingly**.

In general terms it is important to **provide relevant and comprehensive information about the nature and characteristics of local food systems** inside cities and its surrounding areas. Little is known about urban and peri-urban agriculture, as it is often regarded only as a space of leisure and entertainment without considering its potential to provide fresh products. Also, undermining its capabilities to generate social cooperation and network around food, build direct relations between consumers and producers, create job opportunities and, as a result, improve social and environmental sustainability of cities.

To communicate information on a project outside its community can be a challenging exercise. It is important to have a clear idea of the type of stakeholders that need to be addressed and consider it in order to **target key audience** and adopt the most effective channels and language. After that, translation work is essential to **present information in an understandable and attractive way**. Disseminating rather difficult or complicated ideas regarding food and food policies can benefit from **using a diversity of methods**. The more traditional ones, such as informative sessions or media campaigns, can be complemented with more innovative ideas as well as the use of different spaces for divulgation events such as farms or gardens.

Finally, it is important to **address these aspects of communication and awareness-raising right from the start** of the projects, even if they are not fully defined. This helps citizens feel a certain responsibility over such dynamics and opens the way for unexpected help and inputs.

#### Example 6

##### Open Food Facts (France - worldwide)

Open Food Facts is a Collaborative Awareness Platform based on a database of food products with ingredients, allergens, nutrition facts and all the tidbits of information available on product labels. It is a non-profit association of volunteers, with over 1,800 contributors who have added more than 75,000 products from 150 countries using a mobile phone app to scan bar codes and upload pictures of products and their labels. The complete database is published as open data and can be reused by anyone. The search form in the web includes dozens of criteria so consumers can find products that match their criteria and see the nutritional evaluation of each product.

#### Example 7

##### Campi Aperti (Bologna, Italy)

Campi Aperti is an association of organic and biodynamic farmers from the metropolis of Bologna that was formed in 2007 to raise awareness of the high quality of their products compared to those of the food industry. The organisation sets up and manages farmers' markets in Bologna to facilitate the direct sale of products from its members. About 82 producers and many citizens attend the 6 markets organised every week in various locations of the city. The association formed a multi-stakeholder network that allows to organise markets easily and shorten marketing channels, thereby reducing logistic costs. It also enabled the adoption of concrete measures for recycling agricultural and food-processing waste. In addition, Campi Aperti is leading a nation-wide communication campaign, 'Genuino Clandestino', to fight the restrictions and constraints imposed to small farmers by the Italian law.

## 4. POLICY RECOMMENDATIONS

- I. **Adapt existing laws and regulations** to create a normative environment that addresses the specificities of metropolitan agriculture and facilitates the development of urban and peri-urban food-related projects.
- II. **Include local food systems** and metropolitan agriculture in particular **as an integral element of territorial and sectorial strategic planning** in order to avoid the compartmentalisation of public actions and promote the synergies between agriculture and other policy areas such as health, social inclusion, education or job creation.
- III. **Ensure the protection of agricultural areas** and avoid land-use changes due to urban growth, industrial development and infrastructure construction –special taxations on land sales, agricultural parks, protection perimeters and public purchase of land can be useful tools to this end.
- IV. Explore different public-private agreements, such as land stewardship contracts, land banks, rent of public land, lines of credit and others, to **facilitate the access to land for new farmers and other food-related projects**, especially in difficult land tenure contexts.
- V. **Encourage viable and sustainable economic models** in metropolitan agriculture by supporting community-led projects, providing economic and legal assessment, professionalizing the logistics sector, supporting collective organization, creating labels that provide information on the added value of local produce and developing environmental compensation mechanisms.
- VI. Develop policies to **localize food systems through short supply chains** and other alternative configurations of food production, distribution and consumption, by supporting local markets and the direct sale by producers and prioritizing them in public procurement.
- VII. **Adopt the 'meet in the middle' approach in the governance of food systems** –a combination of bottom-up and top-down logics– to integrate participation into policy-making, account for a broad diversity of stakeholders and promote forms of food democracy.
- VIII. **Explore innovative communication strategies to promote local food systems**, support private initiatives in their efforts to raise awareness and share the outcomes of research in the field of urban and peri-urban agriculture.

### Additional resources

- link to the 6 White Papers: <https://goo.gl/tRPQUc>
- link to the Best Practice Catalogue: <https://goo.gl/Qs2LFi>
- [www.agri-madre.net](http://www.agri-madre.net): Metropolitan agriculture and food systems in the Mediterranean platform

See the catalogue on-line at the following links:

[goo.gl/Qs2LFi](https://goo.gl/Qs2LFi)

[www.agri-madre.net](http://www.agri-madre.net)



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Project co-financed by the European  
Regional Development Fund