

Farmers' Innovation in Urban and Peri-urban Agriculture in the Mediterranean region

White Paper



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White Paper

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1. Introduction

Farmers' innovation is a central element in the development and consolidation of metropolitan agriculture. This report discusses the role of farmers and other private stakeholders in the development of sustainable urban and peri-urban agricultural projects in the Mediterranean region.

This report has been prepared in the context of **MADRE, a capitalization Interreg Med project that addresses urban and peri-urban agriculture in 6 metropolitan areas** (Barcelona, Montpellier, Marseille, Bologna, Tirana and Thessaloniki) with the objective of sharing good practices and creating a Mediterranean network of cooperation. Building on local participatory diagnoses, a series of transnational meetings were held in order to discuss different aspects of this issue. This report is one of the 6 'white papers' deriving from these meetings. In particular, **the farmers' innovation dimension was addressed in a workshop held in Marseille on 8 and 9 November 2017 with the participation of about 50 participants** from different stakeholder groups of the 6 metropolitan areas: farmers and business sphere (18%), academia and research (39%), civil society (18%) and public authorities (25%). The case studies presented in this document are included in the 'Urban and Peri-Urban Agriculture Best Practice Catalogue', a collection of 36 key initiatives from the 6 MADRE metropolitan areas. The analysis presented here also complements a more succinct policy recommendations report. All these documents can be accessed through MADRE's website.

The review of the topic and recommendations that follow aim to address all Mediterranean metropolises. As they emerge to a great extent from the discussions held in the context of the project's participatory meetings, their relevance and comprehensiveness might be somehow limited by the diversity, expertise and geographic scope of participants. Nevertheless, they pursue a regional dimension of the issue.

The report consists of a general description of farmers' innovation in the context of urban and peri-urban agriculture, after which the main discussions from the project are presented. The last section presents succinct recommendations both for farmers and policy-makers on how to further foster this topic.

2. What is farmers' innovation in metropolitan agriculture?

Farmers' innovation is based on the idea that farmers have the capacity to innovate, experiment and adapt to changes. **The adaptation of local knowledge, the integration of scientific advances and the development of new ways to manage resources and distribute agricultural products** are some of the ways through which such innovations appear.

From a technological perspective, the main aim of farmers' innovation is to **optimize the use of agricultural inputs** such as land, water, energy, fertilizers and seeds. In urban and peri-urban contexts, the first two are the most critical and expensive. The ideas associated with the concept of circular economy (minimize waste and pollution, keep products and materials in use and regenerate natural systems), the organic production techniques and the paradigm of localized, small-scale food systems are some of the approaches that fit well with this broad objective. Other examples of technological innovations in farming are integrated agricultural systems, permaculture, agroecology, biodynamic agriculture, growing on rooftops, in containers and cellars, vertical farming, reuse techniques of wastewater, exploitation of biomass from cultivated areas, etc.

A second relevant aspect of farmers' innovation is marketing. In urban and peri-urban contexts, producers aim to **differentiate and value the high quality of their products and their proximity to the city**. Such characteristics can appeal to consumers for a wide variety of reasons: promoting local economy, contributing to environmentally sound models, making sure that what they eat is healthy, etc. Efforts made along these lines include the development of new marketing channels (such as websites and social networks), the creation of labels and distinctions for local and/or organic producers and the implementation of media campaigns to promote local products.

Finally, farmers' innovation in metropolitan agriculture can also be described from an organisational perspective, which refers to **farmers' involvement in new forms of cooperation to share resources and services** and their participation in networking initiatives. This can take the form of farming cooperatives, farmers' associations or clusters connecting farmers to processors, distributors and consumers. At the same time, the consolidation of mass distribution channels of food produced in industrial agriculture has fostered the exploration of new ways of distributing and trading, such as direct sale from producers, short distribution channels, community supported agriculture (CSA) initiatives, the association of farmers with consumer groups, etc.



3. How to foster farmers' innovation: lessons and challenges

Farmers have a central role in the development of sustainable metropolitan food systems. In the context of MADRE, a participatory analysis with local stakeholders from the metropolitan areas of Thessaloniki, Tirana, Bologna, Marseille, Montpellier and Barcelona highlighted a number of elements that hamper and foster farmers' innovation in urban and peri-urban contexts. The following table presents the **most relevant common factors from each local analysis**, which can be adopted as a first approach to the situation of this issue in the Mediterranean area.

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<h4 data-bbox="135 369 606 403">Strengths and opportunities</h4> <ul data-bbox="103 436 805 1008" style="list-style-type: none"><li data-bbox="103 436 805 560">• Existence of public and private institutions that provide support to farmers through educational programmes on farming techniques, starting loans for the establishment of new farming plots, and other schemes.<li data-bbox="103 582 805 683">• Existence of networks that connect urban and peri-urban farmers to potential customers and facilitate direct sale.<li data-bbox="103 705 805 862">• Growing interest from society to consume locally produced food and organic products, with diverse motivations (health, social responsibility, desire to know the origin of what they eat, sustainability, local economy, etc.).<li data-bbox="103 884 805 1008">• Emergence of a network of shared knowledge and practices around food: 'foodie' events, food markets, food writings, food-related TV programmes, recipe elaboration...	<h4 data-bbox="885 369 1252 403">Weaknesses and risks</h4> <ul data-bbox="853 436 1508 1052" style="list-style-type: none"><li data-bbox="853 436 1508 537">• Lack of recognition of agriculture as a viable economic activity in urban contexts (no available land and inappropriate regulations).<li data-bbox="853 560 1508 683">• Decreasing availability of agricultural land in peri-urban areas because of land speculation and competing interests (city sprawl, infrastructures, expansion of industries, etc.).<li data-bbox="853 705 1508 806">• Lack of infrastructure for the efficient distribution of small farmers' produce to the city, which leads to high costs in the transport and sale.<li data-bbox="853 828 1508 929">• Low incentive for younger populations to get into farming in metropolitan areas, which creates difficulties for generational renewal.<li data-bbox="853 952 1508 1052">• Environmental deterioration (loss of soil quality, vulnerable biodiversity, climate change, water shortage...) and loss of native crops and local knowledge.

The combination of these factors opens up a number of issues that are highly relevant in any effort to support and enhance urban and peri-urban farming projects. In order to further explore these strengths and weaknesses, representatives from the MADRE metropolises developed a transnational analysis which led to more in-depth discussions around 3 main issues: capitalizing the added value of urban and peri-urban farming (3.1), strengthening the collective organisation of farmers (3.2) and developing support services and training for farmers (3.3).

3.1 Capitalizing the added value of urban and peri-urban farming

Many of the practices adopted by metropolitan farmers revert in added value to their products. The proximity between the city and the place where they are grown is the most evident characteristic, but the fact that they are produced in the context of a local economy, or that the farming activity provides several ecosystem services (biodiversity, climate change mitigation, landscape, place for leisure activities...) also contributes to the distinctiveness of these products. **Farmers can recognize and enhance such distinctive qualities by promoting local providers and clients or by making a transition from conventional to organic agriculture.** Smaller changes can be equally useful: the improvement of water and waste management systems, for instance, can foster this dimension while having a direct effect on production costs. With regards to water, which can be expensive or difficult to access in urban areas, the implementation of rainwater harvesting systems can result in huge benefits for producers. Setting appropriate circuits for reusing urban organic waste as fertilizer for farmers is another area that creates relevant win-win solutions. These are only two opportunities that exemplify how small-scale farming in a metropolitan context can adopt economically wise practices that, at the same time, create benefits for society in terms of sustainability and resilience.

Farmers can also increase the value of their products by shining light on their quality, their methods of production or many other characteristics. However, recognizing and enhancing these aspects is not enough. To translate them into a real added value in the market, it is necessary that consumers perceive such differences and are willing to pay for them. Indeed, most farmers are concerned that their products are not appreciated enough by urban citizens. In order for that to change, it is necessary to **promote local products, label them appropriately and raise awareness on the economic, social and environmental dangers of industrial food production** (see examples 1, 2 and 4). This cultural shift can be difficult to achieve, but recent trends show that consumers are increasingly interested in organic and locally-grown food. Setting up collaborations with public administrations, researchers, activist groups and civil society as a whole is a good way for farmers to promote this new purchasing criteria (see example 3).

Example 1

Chez Les Producteurs (Aubagne, France)

Chez Les Producteurs is a collective outlet managed by farmers with the support of 2 employees. It offers a wide range of products, all organic or environmentally friendly: fruits and vegetables, fish and meat, sheep and goat dairy products, wine, beer or bread. They are sold at farm-gate prices by an external employee, with at least one farmer being present there every day. Most producers belong to the 'Jardins du Pays d'Aubagne' brand, which contributes to democratizing the consumption of local, seasonal and quality food through direct contact between consumers and producers as well as awareness campaigns. The outlet also has a social role to strengthen the local community of farmers. To meet the growing demand for processed food and reduce food waste, CETA Pays d'Aubagne, which supports the project from its beginning, and some farmers are working on the development of a collective processing workshop.

More info on MADRE online catalogue (link in the last page)

Example 2

MIA Organic (Tirana, Albania)

Made In Albania Organic is a private enterprise centred on organic farming (vegetables, herbs, liquors, milk and dairy products, meats and eggs, and some processed vegetables) and the sale of organic products from some other 30 Albanian farmers. It started with the objective of bringing the best and healthiest food to the consumers and it is committed to high standards of quality and sustainability. MIA's farm has an integrated irrigation and drainage system and its fields are also used for recreational activities. In addition to a shop in the centre of Tirana, it also has an online sales platform. MIA has achieved to create a network of small organic farmers in Albania who sell their products through MIA's marketing channels and benefit from the strong and effective communication efforts made by the company.

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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.). Its members work in close relation with local farmers from the surroundings of each school and offer a wide range of training activities, such as workshops, talks and events.

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3.2 Strengthening the collective organisation of farmers

Collective farmers' outlets, farmers' markets, community supported agriculture (CSA), farmer cooperatives, web-based trading platforms... all these types of projects require collective organisation among farmers. **The coming together of producers at a metropolitan scale can be a very interesting way to overcome some of the difficulties that hinder the viability of small projects.**

Developing structures of cooperation between farmers can be positive for different reasons. First of all, pooling resources, equipment and services (e.g. machinery, processing spaces, distribution and delivery services...) and sharing the costs can be a relief for small producers and a way to support fragile projects (see example 1). In addition, a number of skills are increasingly needed by farmers (farming techniques -especially for newcomers-, monitoring of consumption trends, communication strategies, product marketing, understanding new forms of distribution, etc.) and can easily be addressed by the dissemination of relevant information, the organisation of specific trainings or the intergenerational transmission of knowledge. Collective organisations and initiatives can also support individual farmers in complying with regulations and procedures, which often represent a major burden for producers. Finally, they can raise their voice more effectively and stand up for small farmers and their demands (see example 4).



Example 4 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.

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However, collective action among farmers also meets with a number of difficulties. Farming activities (both producing and selling) often leave farmers little time for getting together and participating in collective initiatives. This constraint is even bigger in particular moments of the year. Distance between farmers is another important issue, as farms are often located in remote areas, with poor connections to transport networks. On the other hand, collective action often requires a dedicated person to coordinate and facilitate networking and cooperation between individuals, and it is not easy to ensure the resources to support this role. On top of that, relational problems tend to appear, since taking part in this kind of initiatives for the first time demands farmers to change their habits regarding economic procedures or decision-making and to establish relations of mutual trust based on knowing each other, two processes that can be difficult and time-consuming.

Public institutions can play an important role in facilitating this process of collective organisation among farmers.

Some of the actions that contribute to this issue are the development of appropriate regulations and communication channels, the possibility to process food or develop distribution activities in public spaces and buildings when they are not in use or the adaptation of public tenders so that small farmers and farmers' collectives can apply to them.

3.3 Developing support services and training for farmers

The difficulty to access appropriate training and capacity-building services is another major issue that hinders metropolitan agriculture. The development of **innovations in farming activities is linked to social and economic changes that demand new techniques and knowledge, both for current farmers and newcomers**. Specific training needs in the Mediterranean region include the management of soil pollution, new farming techniques and equipment, diversification of food production and processing, contribution of agriculture in terms of ecosystem services, new business opportunities in agricultural land, short circuit distribution channels and understanding the legal frameworks of metropolitan agriculture, among others.

It is therefore important to **ensure a regular offer of training courses and exchanges among farmers** that facilitate the sharing of experiences and new solutions to upcoming challenges. Many farming collectives and related organisations already play that role, and local and regional administrations can also take their part. Food-related events, social media initiatives, agricultural test areas (see example 5), farmers' mentoring schemes and the development of collective pilot projects are other interesting ways to exchange information and knowledge.

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 out 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.

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4. Recommendations

Metropolitan agriculture has multiple dimensions and its development brings together a wide range of stakeholders. The recommendations that follow are some of the actions that can help to preserve and strengthen urban and peri-urban agriculture, with a particular focus on the farmers' innovation dimension and the specific issues discussed in this report.

Farmers and farmers' organisations:

- Explore and enhance the elements that create an added-value to their farming activities. In particular, adopt changes that align with a circular economy perspective, such as reusing rainwater or recycling urban organic waste as fertilizers.
- Foster the participation of small farmers in cooperative groups and networks and other forms of collective action facilitating the sharing of resources, equipment and services as well as the exchange of experience and knowledge.
- Engage with public administrations, researchers and organisations of civil society to develop joint actions for the promotion of local, quality and organic products among consumers.

Public administrations:

- Support the creation, training, and development of sustainable farming initiatives in urban and peri-urban areas.
- Adapt norms and regulations so that they provide a favourable framework for small-scale local producers as well as enable and promote collective initiatives.
- Facilitate the access to appropriate land for new farming projects.
- Develop strategies to promote local products through the population: brands, media campaigns, public tenders, etc.
- Allow the use of vacant or abandoned spaces for the distribution or sale of local agricultural products.
- Simplify procedures for small local farmers and their collective initiatives.



See the catalogue on-line at the following links:

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www.agri-madre.net



m.dieny@avitem.org

ricerca.innovazione@cittametropolitana.bo.it

madre.interreg-med.eu



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