



UFIL REPORT - YEAR 1

**THE DAM (DISTRETTO AGRICOLO MILANESE) AND
THE METROPOLITAN SYSTEM OF AGRICULTURAL DISTRICTS**

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1. Introduction

According to the Italian legislation, agricultural districts are groups of farmers that gather together in order to empower their activity in terms of economic outcomes (economies of scale, public fundraising), communications (visibility), political influence (advocacy for sound policies).

The Italian government started developing the “district strategy” about 30 years ago, firstly in the industrial sector, with the 317/91 law “*Interventions for innovation and small enterprises development*”, and later in agriculture, with the legislative decree 228/01 “*Orientation and modernization of the agricultural sector*”. Further legislative acts (289/02; 80/05) created specific forms of public support for agricultural districts and this form of aid was finally approved by the European Commission in 2008 (C 2008 7843).

The Council of the Lombardy Region developed this strategy with a specific law in January 2007 and disciplined the issue with the deliberation 8/10085 (August 2009).

Thus, even if this topic has a long history in the Italian development strategy, the instrument of the rural district is something relatively new that has been fully implemented only in the last 10 years.

Theoretical background

From a theoretical point of view, the topic of the agricultural districts is part of a more general branch of research on local development that stresses the strategic role played by local networks and localized resources in promoting local development processes (Becattini, 1987; Porter, 1998; Dematteis, Governa, 2007). More specifically, in the agri-food sector, the local system analysis produced a group of researches that highlighted the peculiarity of agricultural and food networks, theorizing the development of Localized Agri-Food Systems (SYAL, Muchnik, 2008).

At the urban scale, Kevin Morgan (2015) has highlighted how the agro-food networks rely upon a socio-spatial pattern that integrates rural and urban areas: in this perspective the agricultural districts presented in this document represent a strategic instrument for the development of sustainable urban food systems. More specifically, in the case of Milan, the agricultural districts were developed in order to become a crucial partner in the process of urban food policy making lead by the municipality.

2. Geographical context

The research context is the area of the Metropolitan City of Milan (MCM), the local body that has replaced the Province after the law 56/14. The MCM is divided into eight *homogeneous areas* with specific characteristics: Milano, Alto Milanese, Magentino-Abbiatense, Sud Ovest, Sud Est, Adda Martesana, Nord Milano, Nord Ovest (see Fig. 1). The research covers seven of these areas, but it is mostly focused in the central and southern part of the metropolitan city, where agriculture historically prevails.

Fig. 1 – Metropolitan City of Milan, homogeneous areas (source: MCM)

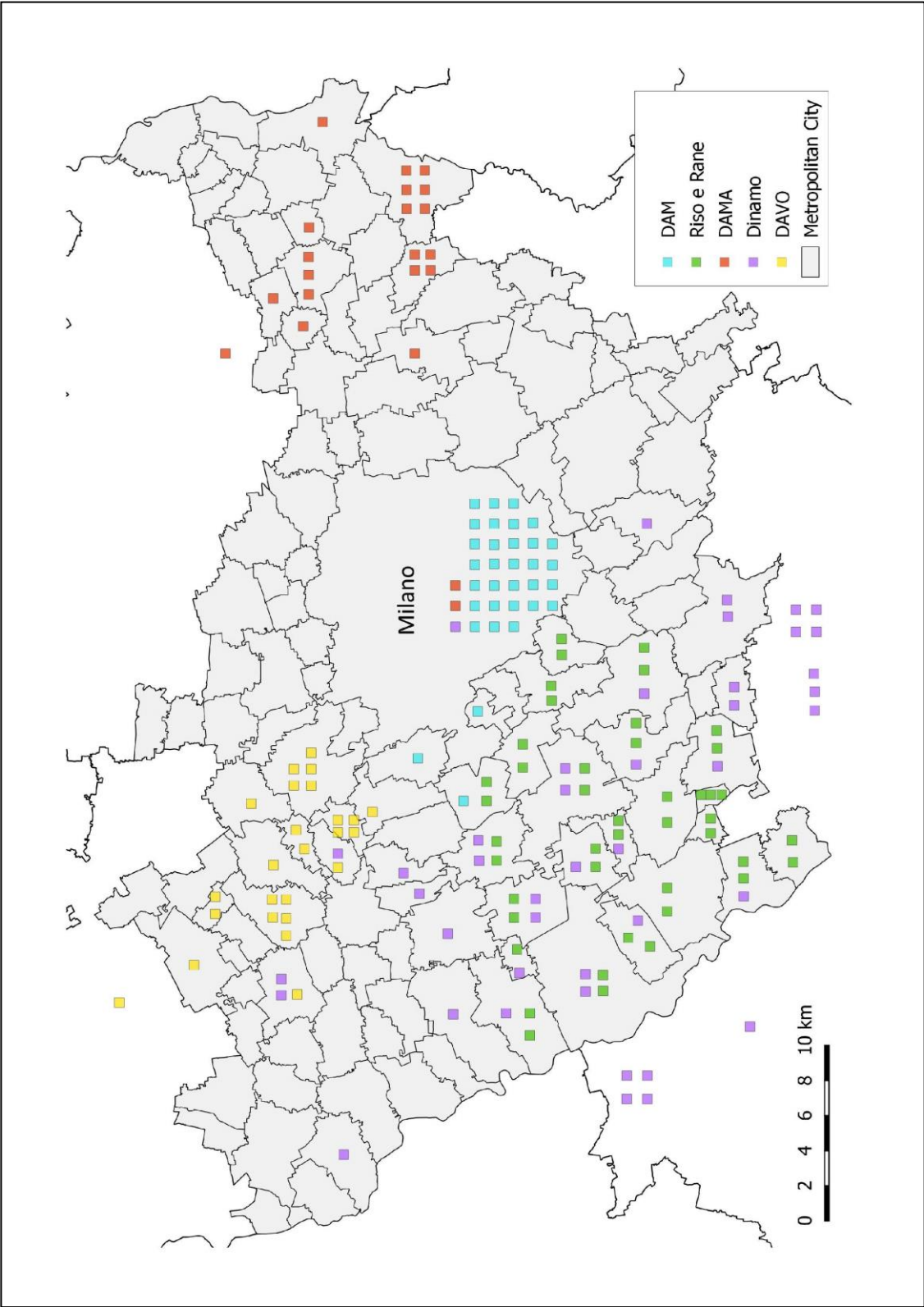


In the MCM area, five agricultural districts are operative: The Milan Agricultural District (DAM), The Adda Martesana District (DAMA), the Olona Valley District (DAVO), the Three rivers district (Dinamo), the Rice and Frogs District (fig. 2).

The MCM area is characterized by the presence of relevant protected areas that surround the city. The first and most important for the project is the South Milan Agricultural Park (SMAP), an innovative park created in 1990 in order to integrate environmental protection and agriculture.

Three parks cover the sides of the two rivers that limit the MCM: on the West side the Ticino Valley Regional Park; on the East side, the Adda Parks (divided into Adda North and Adda South). Other parks cover smaller portions of the peri-urban area, mostly out of our research domain (North Milan Park, Groane Park).

Fig. 2 – MCM, agricultural districts (source: Bini, Zanolin ,2020)



3. Institutional context

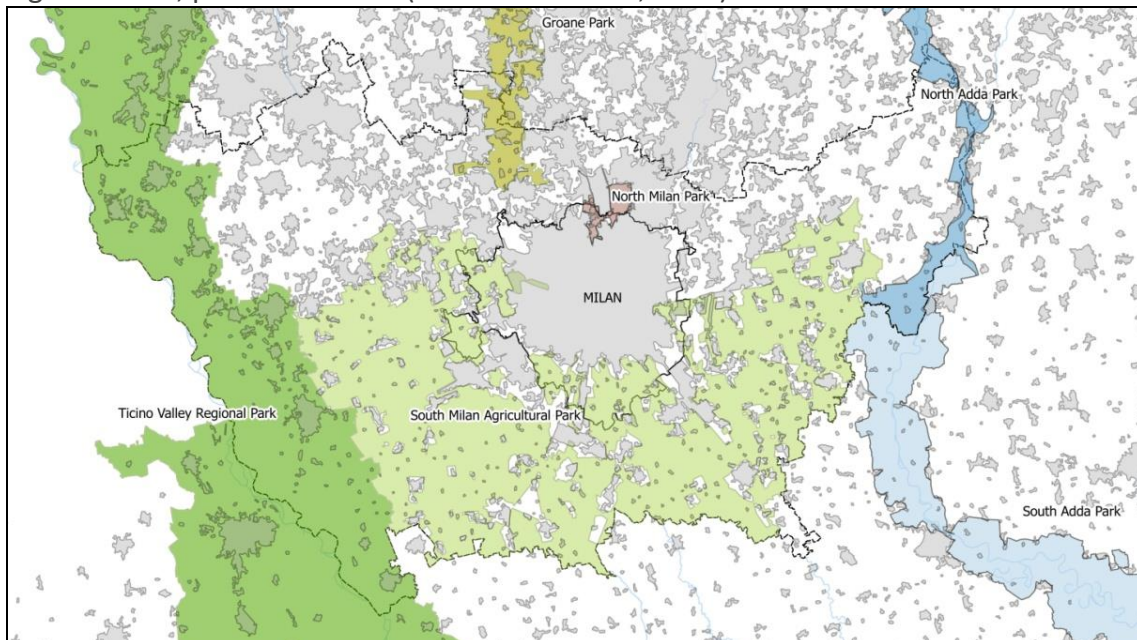
On the governance side, two aspects have to be highlighted. The first one is the Milan Urban Food Policy (MUFP) which aims at addressing, in a systemic way, all the aspects related to food that are usually under the jurisdiction of separate administrative bodies.

In particular, the MUFP Guidelines have highlighted five priorities:

1. Providing healthy food for everybody
2. Promoting the sustainability of the food system
3. Understanding food
4. Fighting against waste
5. Supporting and promoting scientific research in the agri-food sector.

All the priorities are interconnected, but priority n.2 is particularly related to the topic discussed in this document.

Fig. 3 – MCM, protected areas (source: Bini et al., 2018)



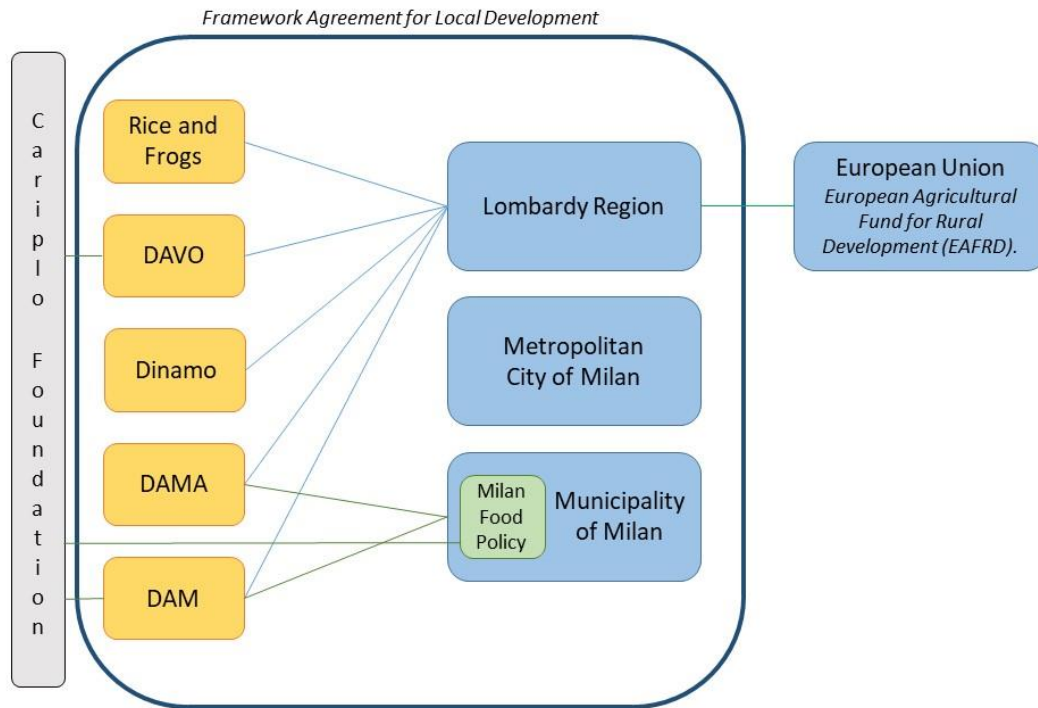
The guidelines of the MUFP, together with the international Milan Urban Food Policy Pact (MUFPP) were approved in 2015, the year of the World Expo “*Feeding the planet, energy for life*”, but the Food Policy Office became operative only in 2017.

The second topic that concerns directly the governance of the urban food system is the *Framework Agreement for Local Development* (Accordo Quadro di Sviluppo Territoriale - AQST), created in the period 2013-15, that brought together the agricultural districts, the Municipality of Milan, the Metropolitan City of Milan and Lombardy regional government¹.

¹ In 2016 two more institutions signed the agreement: the East Ticino-Villoresi Consortium and the Olona River consortium.

The aim of the AQST is to enhance the rural characteristics of the Milan metropolitan area by promoting a sustainable development that integrates local economic activities and environmental restoration. In order to understand this framework agreement and the projects that have been implemented under its strategy we have to shed a light on the different districts.

Fig. 3 – Map of the main stakeholders involved (Bini, 2020)



4. The districts

4.1. Milan Agricultural District (DAM)

Created in 2011, the Milan Agricultural District (DAM) now gathers 31 farms operating within the municipal boundaries of the city. The development plan of the district identifies its first objective in the protection of the commons, particularly water and soil, and in the rehabilitation of landscape and peri-urban environment.

The most important element of the district, in terms of opportunity and threats is the location of the farms. On the one hand, the area is characterized by a strong pressure from urban activities – in terms of real estate speculation and social and environmental externalities – that have eroded the quantity and the quality of rural spaces, especially in the period 1950-1990. On the other hand, the city represents an opportunity to enhance the production and distribution of food, in a new synergic relation between rural and urban actors.

In this direction, the strategy of the district aims at activating local agro-food networks in order to empower the farmers and defend peri-urban spaces from the pressure of urban activities. Coherently with this strategy, the DAM, in partnership with the Milan Food Policy Office, is developing projects aimed at supplying urban school canteens with products coming from peri-urban farms.

Two actors are at the core of this strategy: the Milan Agriculture District (DAM) and the food service company “Milano Ristorazione”, whose capital is 99% owned by the Municipality. This action started in 2016 when the DAM members were asked to supply the rice needs for the local school canteens (180 tons/year for a value of €300,000). Now the municipality is extending this model to other products (particularly legumes, vegetables and cereals) with the double purposes of enhancing the local basis of the urban food service system and stimulating a transition in peri-urban agriculture from cereal monoculture to a more diversified production. In order to support local farmers in this transition, the Food Policy Office has backed up the DAM in the presentation of a project (“Mater Alimentata Urbes”) for the EU-Rural Development Program (Measure 16 “Cooperation”, action 16.10.02 “Integrated Area Projects”). The project, approved in 2019, represents an innovative form of collaboration between local bodies (6 municipalities of the MCM are directly involved in the project), farmers (21 farms) and agricultural districts (DAM and DAMA).

Finally, the district has developed a partnership with Esselunga, one of the largest mass retailers in Northern Italy, allowing the sale of products (rice, dairies) with the label of the district.

4.2. Adda Martesana Agricultural District (DAMA)

The DAMA has been established in 2017 and it involves 20 farms located in 11 municipalities in the eastern part of the MCM. The area covered by the district is specifically menaced by urban sprawl and externalities, particularly two highways that have been built in the last 10 years (A35; A58), further fragmenting the already limited rural space. In this case, agriculture is weaker than in the DAM area and the district was specifically thought in order to defend these residual spaces from the erosion produced by urban dynamics.

The district is partner with the DAM in the RDP project. More specifically, 5 farms and 2 municipalities that are involved in the district participate in the project: the farms are mostly engaged in the development of a local food supply-chain (diversification of products, local food network activities), while the action of the municipalities is primarily directed to landscape restoration activities (hedges and tree rows rehabilitation) and to the improvement of slow mobility infrastructures (signage and cycle lanes).

4.3. Olona Valley Agricultural District (DAVO)

The DAVO has a peculiar origin as it was promoted in 2012 by the Olona River Consortium, one of the oldest institutions dealing with river management in Italy (founded in 1606). Presently the district involves 45 farms located in three homogeneous areas (*Nord Ovest, Alto Milanese, Magentino-Abbiatense*) of the MCM and in the Province of Varese.

Given this specific nature, this district has a specific vocation to environmental actions, especially for what concerns water issues and the environmental restoration is the first strategic axis of the district. At the same time, like all the other districts, the DAVO has also developed more conventional activities such as the support to local farmers and the promotion of local products.

The largest project implemented by the district was the restoration of an ecological corridor in the peri-urban area of Milan (Rho, Pregnana Milanese, North-West area). The project was funded by Cariplo Foundation and Expo 2015 SpA, the company in charge of the organization and management of the World's fair.

4.4. Rice and Frogs

The "Riso e Rane" (Rice and Frogs) agricultural district was founded in 2011 in the south-western portion of the MCM, between the city of Milan and the Ticino river, an area marked by the presence of two parks: the South Milan Agricultural Park and the Ticino Valley Regional Park. The 23 municipalities involved cover an area of 30,513 hectares (19.37% of the Metropolitan City of Milan) that is specialized in intensive rice cultivation: 80% of the area is occupied by productive agricultural soil and 60% of the rice growing area of the MCM lies in the municipalities involved in the district.

The *Rice and Frogs* district was created with the aim to build a network between local farmers in order to qualify their presence on the market. For this purpose, the district has developed a marketing strategy focused on the high quality of its agricultural products and created a specific label for its rice. Moreover, in order to promote the image of the area, the district has developed actions to protect the quality of the environment and to promote cultural and natural heritage. A specific focus is on the protection of the agro-ecosystems and of the irrigation grid, useful for agricultural production but also fundamental for the rural landscape.

In 2016, the district launched an important project: the "DNA controlled brand" project. The aim of the project is to certify the quality of the local rice with genetic analysis identifying the specific characteristic of the different varieties produced by the farmers (Carnaroli, Arborio, Volano, Baldo, S. Andrea, Vialone nano).

The district distributes part of its rice through an agreement with Esselunga.

4.5. Neorural District of the Three Waters of Milan (Dinamo)

The Dinamo was founded in 2012 by 53 farmers (36 in the MCM, 17 in the Province of Pavia) in an area delimited by three watercourses: the Ticino River, the Villoresi Canal and the Naviglio Pavese Canal. The district now covers 69 municipalities localized in four protected areas: two large parks (South Milan Agricultural Park, Ticino Valley Regional Park) and two smaller intercommunal parks (Gelso Park, Roccolo Park).

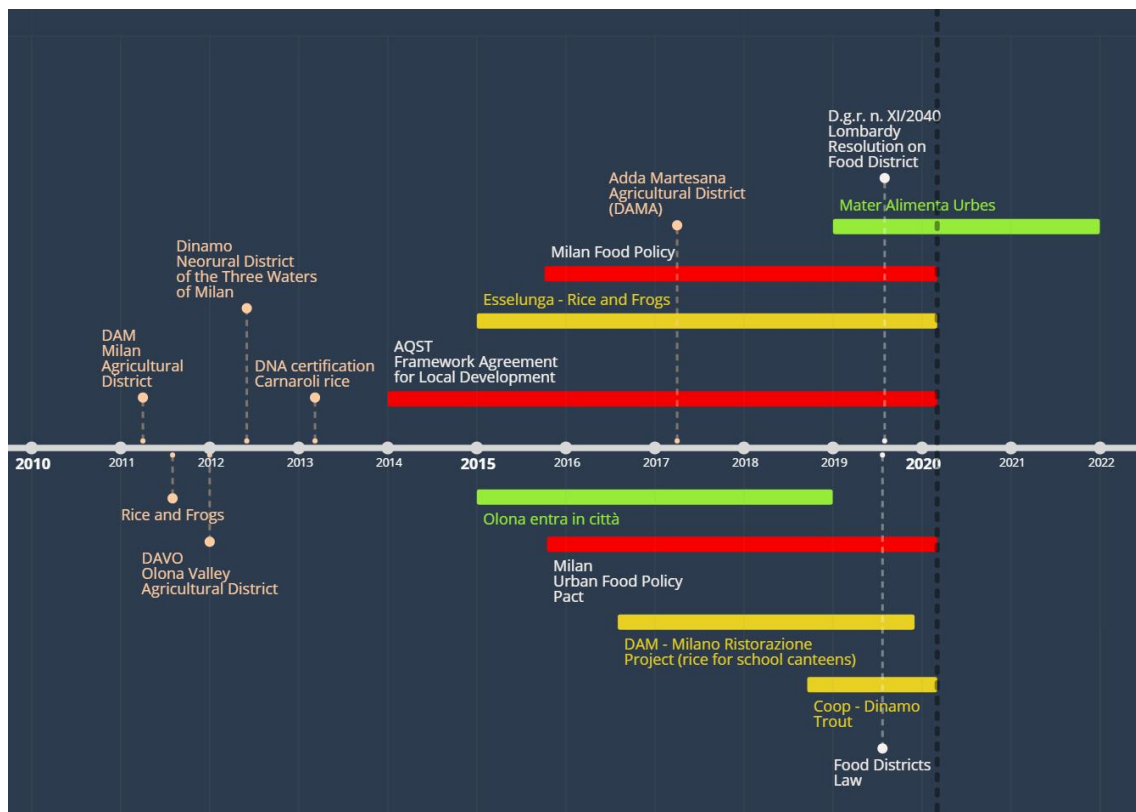
The area partially overlaps with the *Rice and Frog* district, so the main cultivation remains rice, but in this case the district strategy is less focused on a single product and more oriented to a diversified pattern of agricultural activities.

The district aims at combining high quality agriculture and environmental restoration, with a specific focus on rural tourism. In fact, the “neorurality” and multifunctionality of the farmers is a distinctive point of the district: 13 among them lead agritourism activities, 22 have shops for direct sell, 29 transform their products, 10 are promoting projects of environmental education.

Through the “Neorural” district, many innovative farmers can build a network to increase the power of their projects. In a nutshell, the district aims at converting the risk of being farmers in the peri-urban area of a big city into an opportunity in terms of markets for products and services.

In the commercial sector, the district has developed an important partnership with Coop, one of the largest mass retailers in Italy. Through this agreement the district distributes rice, fish and beer produced by its farmers.

Fig. 4 – Timeline of the rural districts’ evolution (main projects: green; Institutional agreements: red; private agreements: yellow; Bini, 2020)



5. Activities

The research has followed two paths: first, through two focus group meetings, we have examined the retail system, highlighting the potential role of the rural districts in the development of a short food supply chain; secondly, with a number of in-depth interviews with relevant actors of the rural districts system we have analyzed the issue of governance.

5.1. Focus groups

Two focus group meetings have been organized, in collaboration with the Milan Food Policy Office.

The first one occurred on 10/30/2019 and was aimed at understanding the opportunities for the rural districts in the development of a short supply chain within the mass retail system. For this purpose, three representatives of mass retailers were invited to participate (LIDL, Carrefour, Coop).

Several projects in this direction are already operative, mostly for rice commercialization, but also concerning dairies, fish, and vegetables.

The major problems highlighted by the retailers concerned the volume and the logistical aspects of the distribution of goods.

Fig. 5 – The focus group with the representatives of the mass retail system (Milan Food Policy, 2019)



The second focus group was held on 12/2/2019 and focused on the commercial network of the rural districts.

Representatives of all the five districts were present and they filled up a form aimed at understanding the structural characteristics of each district and their commercial ties.

The retail systems were grouped in eight categories: on-farm sale, local shops, municipal markets, farmer's markets, Community-supported agriculture, mass retailers, on-line selling, public canteens. The participants were asked to assess their present and potential interest for each category: 1 (low) to 5 (high) points.

Fig. 6 – The focus group with the representative of the rural districts (Milan Food Policy, 2019)



The answers are summarized in the following table (Fig. 7): presently the most important commercial strategies are the on-farm sale and the farmer's markets, although the mass retail system has been identified as a relevant commercial channel by four districts.

Looking at the strategies for the future, the districts have highlighted the on-farm sale, the public canteens system, and the mass retail system as the main drivers. The sectors with the large increase between the present and the future – the ones where an investment by the Food Policy Office could have the largest impact – are the online selling, the public canteens and the local shops.

SWOT Analysis

The 27 participants were asked to judge the importance (from 1 to 5) of 33 elements connected to the development of short supply chains in the Metropolitan City of Milan, in terms of Strengths, Weaknesses, Opportunities and Threats.

Here are the main outcomes of the SWOT matrix.

Strengths

The presence of a strong institutional will and a dynamic framework of public and private actors: the city of Milan expresses an innovative demand for short supply chains.

The presence of innovative poles (public companies, innovative mass retailers) that can express new interest for local supply chains. The presence of new generations of farmers and of a large agricultural land in the MCM area.

Weaknesses

The individualistic working methods of many farmers highlight the need for an external support from aggregators such as the rural districts.

The consolidated structure of agricultural activities in the MCM area can generate difficulties in productive changes.

Fig. 7 – The table summarizing the answers of the rural districts about their commercial strategies (Milan Food Policy, 2019)

	Produzioni principali	Vendita Diretta	Negozi Locali	Mercati Comunali	Mercati Agricoli	Gruppi Acquisto	Grande Distribuzione	Vendita Online	Ristorazione Collettiva	
DAM incontri annuali 4 coesione percepita 2	34 aziende Riso 10.000 T Latte 2.000 T Mais 5.000 T Orticole	3 3	1 2	2	2 2	1 3	2 3	3	1 2	
DAMA incontri annuali 3 coesione percepita 2	25 aziende Cereali Latte Carne	2 2		2			2		2 2	
DINAMO incontri annuali 5 coesione percepita 2	45 aziende Riso 12.000 T Cereali 3.000 T Carne 2.500 T Orticole 1.000 T	3 4	2 3	1 3	2 3	2 2	1 4	1 3	1 4	
DAVO incontri annuali 12 coesione percepita 3	39 aziende Cereali Latte Orticole Uova Miele	4 3	1 2	2 3	3 3	1 2	1 1	1 1		
RISO E RANE incontri annuali 4 coesione percepita 3	45 aziende Riso 20.000 T	2	2		1		2	1	2	
Valutazione percepita dei canali distributivi		Totale	14 12	4 9	5 8	8 8	4 7	6 10	3 7	4 10
Attuale Futuro			n/4 n/4	percezione futura positiva/negativa						
			-17%	+56%	+38%	0%	+43%	+40%	+57%	+60%

The lack of infrastructure for the processing of agricultural commodities hinders the development of structured activities by the rural districts.

The fragmentation of properties and the fact that often land ownership is not associated with agricultural activities hinders access to credit, which is essential for the investments for innovation.

Opportunities

On the institutional side, the main opportunities are: the availability of public funding for pilot trials and for the scalability of the innovations (CAP, RDP) and the clear legislative framework for local supplies for public catering companies.

On the economic side, the participants have highlighted: the interest of the mass retailers towards the short supply chains; the international projection of the municipal system; the potential increase in the demand and supply of agricultural products (eg. ethnic catering).

The availability of many studies developed in the last 10 years on the relationship between the city and the countryside is also considered a key opportunity.

Risks

The uncertainty about the future programming of rural development funds (RDP and CAP), the volatility of food prices and the possibility of unpredictable environmental events are highlighted as the main threats to the development of a local supply chain in the MCM area.

5.2 In-depth interviews

The first interview was conducted with the Official of the Lombardy Region in charge with the Rural Districts System (September 2019). The interview outlined the institutional framework of the districts and the recent evolution in the legislation (D.g.r. 31 July 2019 - n. XI/2040).

The other interviews involved the leading figures of the rural districts (Andrea Falappi, November 2019; Marco Pezzetta, February 2020; Marco Magni, February 2020) and were aimed at understanding the characteristics and the strategies of the districts.

Specific questions were directed at highlighting three dimensions of the potential benefit of rural districts for the farmers: the empowerment of the farmers in the relationship with the institutions; the support in the access to public funds; the enhancement of commercial networks.

The results of the interviews and the focus group meetings in terms of development of a sustainable urban food system are summarized in par. 6.

6. Sustainability

6.1. Environment

All the district development plans foresee a number of actions in the environmental sector, at different scales.

On a punctual level, all the districts promote actions of environmental restoration, but in this sector we can highlight the action of the DAVO that pays a specific attention to the preservation of the Olona river, coherently with the origin of the district.

On a local scale, some districts have emphasized environmental and landscape restoration as instruments for territorial marketing, especially for those districts where the rural matrix is more evident (Rice and Frogs, Dinamo).

On a larger dimension, the building of a renovated linkage between rural and urban areas which is part of the strategy of these peri-urban districts has important environmental consequences, particularly in terms of land use policies. The districts that have better developed this topic are the Dinamo, the DAMA and above all, given its structural link with the city, the DAM.

A critical issue, from an environmental perspective, is the limited number of products cultivated by the members of the districts. In this direction, the RDP project developed by the DAM and the DAMA has planned specific actions in order to diversify the production of the farmers.

6.2. Food security and nutrition

The production of food is the core business of all the farmers involved in the districts, but we can highlight two different lines of action in their strategies.

The first one stresses the high quality of the products and the best example in this direction is the Rice and Frogs district. This strategy aims at developing a competitive advantage for the local farmers based on the specific characteristic of the product, thus benefiting from the “quality turn” that has been emerging in the MCM, like in many other high-income regions.

The second strategy is still based on high quality food, but it stresses the local dimension of the products. Districts such as the DAM and the DAMA, especially with the RDP project, pursue a strategy of integration with the Milan food policy in order to develop an urban food network. This perspective overtakes the conventional food security approach, moving towards a food sovereignty perspective (La via campesina, 1996).

6.3. Economic sustainability

In the Italian legislation, agricultural districts are mainly conceived as instruments to enhance the economic activities of the farmers. Consequently, all the districts have planned actions in this direction, especially in terms of marketing.

The MCM is a critical region for agriculture, the farmers suffering both from the pressure of the city and from the competition of the international market. In many cases, especially in the most urbanized areas, the district can be read as an answer to a structural crisis, developed in order to avoid the decline of agriculture.

In the southern part of the MCM, agricultural activities are better placed, but they have to qualify their production in order to remain competitive on the market. The Rice and Frogs district has developed the most structured actions in this direction, for instance with the “DNA controlled brand” project.

6.4. Socio-cultural sustainability

The research area is characterized by a relevant cultural heritage, both in terms of punctual assets and in terms of a specific landscape shaped by a centuries-old agriculture, especially in the Southern part of the MCM.

All the districts are engaged in the defense and restoration of this heritage: the RDP project has developed a specific focus on this topic aimed at the rehabilitation of significant places of identity for the local community.

Another element that should be stressed is the multifunctional strategy developed by some districts: the farmers of the Dinamo, in particular, seem to have found in tourism and environmental education two strategic lines of action for the future.

6.5. Governance

The agricultural districts can represent a useful instrument to face some structural problems of contemporary agriculture, gathering farmers that otherwise would be too weak to act or to have an impact on political decisions. For instance, agricultural districts could play a role in the negotiation on land use policies at the local scale. This political dimension is present in the district development plans but some districts have specifically emphasized this dimension: the “neorural” matrix of the Dinamo, for instance, is connected to an innovative spatial paradigm that integrates urban and rural areas, while districts operating in the most urbanized area of the MCM (DAM, DAMA) explicitly intend their role in contrast to the massive land use conversion that has characterized this region up to now.

7. Conclusion

The agricultural districts are innovative actors with a high potentiality for the development of urban food systems fostering all the different dimensions of sustainability.

The five districts presented here have different characteristics and different levels of development.

Their strategy has followed three paths: the enhancement of the commercial networks, mainly through marketing initiatives (eg. labels) or agreements with large mass retailers (DAM and Rice and Frogs with Esselunga, Dinamo with Coop). In this sense the presence of different districts selling the same product (rice) in similar conditions can undermine the efforts towards the creation of a short supply chain, creating competition instead of synergies on a local scale. The creation of a single label for the rice of the five districts could stimulate economies of scale and strengthening the visibility of local products in the mass retail system.

The political dimension of the district, aimed at influencing the planning of urban and peri-urban areas has been mostly developed by the DAM (in partnership with the municipality), the DAVO (with the “Olona entra in città” project) and the Dinamo.

All the districts have tried to support the farmers in the access to public funds, especially those coming from the European Agricultural Fund for Rural Development. The most interesting initiative in this sense is the “Mater alimenta Urbes” project developed by the DAM and the DAMA in partnership with the municipality of Milan.

Until now, the districts have privileged a local action based on micro-interventions and the main challenge for the future is to scale up their action in order to have a bigger impact on the socio-spatial dynamics of the region. In this direction, the RDP project developed by the DAM and the DAMA could represent a crucial passage for the development of these actors, showing the potential role of the districts as instruments in the interaction with bigger players with larger budgets. The project has just been approved but its implementation will be a decisive element of analysis for our research.

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