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Sustainable local development and agri-food system in the post Covid crisis: The case of Rome

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ABSTRACT

This paper focuses on the research pathway related to the drafting of a strategic Agri-Food Plan of Rome. The paper highlights the theoretical background and investigates the strategic vision and actions, as well as the role played by the Covid-19 Pandemic by changing priorities. The merging between two strands of study is identified: urban food strategies and sustainability in the debate on post Covid-19 food planning studies and the analysis of local agri-food systems for economic development. This work shows that in the case of urban and metropolitan areas around the Mediterranean, agriculture, the cultural dimension of food, logistics, research and innovation, and tourism marketing can be included within a single planning and policy tool. In the case of Rome, the place-based approach allowed us to consider the specificities of social and spatial contexts with interactions of market drivers with public institutions. This approach may constitute a promising path of research for the future of sustainable planning, particularly in Mediterranean cities. The results have interesting policy implications that should be more explicitly considered in addressing urban agendas, and in particular, the role of food to promote local development by integrating economic, social, and environmental and spatial values at a regional scale.

1. Introduction

The sustainability of food systems has become increasingly relevant in recent years, also at the global scale, in the framework of the UN 2030 Agenda for Sustainable Development, on issues related to hunger and food security, sustainable water management, the adoption of sustainable production models, and consumption. The role of sustainability in urban food systems is a challenge for food governance and policy makers (Moragues-Faus & Morgan, 2015; Morgan, 2009, 2013).

Among the results of Expo 2015, where “Feeding the planet” was placed as a theme for global reflection, is the “Milan Food Policy Pact” which has been signed by over two hundred cities worldwide, including numerous Italian cities and Rome itself. The municipalities that have joined in the process are committed to making their urban food systems more sustainable and equitable.

From this perspective, the impacts of the Covid-19 pandemic have played a prominent role in redefining policy agenda priorities (Millard et al., 2022; Vittuari et al., 2021). Despite the anti-cyclical nature of the agri-food sector, the pandemic has caused significant shocks to agricultural and food systems on a global scale causing the extraordinary disruption of agri-food supply chains (FAO, 2020a, 2020b).

Over the last decade, several Italian cities have developed projects related to issues associated with the relationship between food and regional development, both in urban and peri-urban contexts, as well as in rural areas (Calori et al., 2017; Pettenati & Toldo, 2018). The Italian cases focused mainly on aspects and means of implementation and tools related to social and educational aspects (Dansero et al., 2019), leaving the spatial effects of food policies.

The Italian agri-food system was less affected by the first wave of Covid-19 than other economic sectors (Cesaro et al., 2020; Marino et al., 2020). However, several impacts have been found to affect farms and agri-food processing companies, particularly micro, small, and medium-sized enterprises, from producers, manufacturers, traders, and food processors to transporters and retailers (Blay-Palmer et al., 2021).

In the case of Rome, in addition to the economic impacts linked to the reduction in tourist flows (Agri Food Plan of Rome (AFPR), 2021), restrictions on selling food in public spaces, the use of public transport, and limitations to agricultural operations have caused disruptions in food production and supply, with significant effects on the city’s agri-food system (Pasquinelli et al., 2021; Cannata and Cavallo, 2021).

In early 2020, the Department of Economic Development, Tourism, and Labour of the Municipality of Rome launched an extensive project

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for analysis and strategic planning around four areas considered priorities for the future of Rome: tourism, agri-food, smart city and technology, and culture. The municipality has started the construction of the Strategic Urban Economic Development Plan (SUEPD) as a dynamic tool that will have to be updated annually and has a medium-long-term time horizon of 2030.

In the process of drafting the Agri-Food Plan of Rome (AFPR), the Urban Economic Planning and Innovation Office provided operational development, tourism, and Labour, the Chamber of Commerce of Rome for the development and promotion of the agri-food system, while Universitas Mercatorum was entrusted with the scientific coordination and drafting of the AFPR. In detail, the authors supervised the research design for the construction of the Plan’s cognitive framework and coordinated the participatory process and the data collection and analysis. Furthermore, they conceived and drafted the Plan’s vision and strategic lines. The authors were involved in the SUEPD development process as research consultants of the Municipality of Rome.

The agri-food system constitutes a pivotal sector on the economic level due to its local features as well as for its social and environmental values. The Municipality of Rome has chosen to build a plan that places food and agriculture as themes for the local development of the city. Strategic planning is the most appropriate tool to govern the economic, social, and environmental changes of urban systems. The key topics of the Plan are related to three macro-areas: the features of the Roman agri-food system, the participatory process, and the strategic areas.

The research question of the paper is twofold:

1. How can the agri-food system of Rome be rethought to benefit the local economic development?
2. How can a spatial and relational planning tool of the agri-food system be built for sustainable local economic development in a Mediterranean city?

This contribution aims to enrich the debate on the role of agri-food systems in urban agendas by discussing the case of Rome. The paper stems from the identification of a convergence between two relevant strands of study: urban food strategies and sustainability in the post Covid-19 food studies debate (Blay-Palmer et al., 2021; Bisoffi et al., 2021; Vittuari et al., 2021) and the analysis of local agri-food systems for sustainable economic development in a place-based approach (Arfini et al., 2012; Mantino & Vanni, 2018).

The paper is structured as follows. Section 2 discusses the theoretical framework. The methodological aspects of the research process and the characteristics of the Roman agri-food system are presented in Section 3. The strategic guidelines of the Plan are described in Section 4 and discussed in Section 5. Concluding remarks are then provided in the final section of the paper.

2. Theoretical framework

Cities constitute specific scales of action for food systems in urban food planning (Morgan, 2009, 2013; Pothukuchi & Kaufman, 2000). Urban areas are recognised as key actors in food policies through the planning of local food systems at the urban and metropolitan scales (Moragues-Faus & Morgan, 2015) and from a city's regional perspective (Blay-Palmer et al., 2018).

The most relevant challenges in this framework consider an integrated approach to the relationship between environment, agriculture, and food (Blay-Palmer et al., 2016). According to this approach, food is not only seen as a provider of nutrients, an economic good, or a cultural trait, but as a complex spatial factor that links the environment, society, culture, and economy. These policies, originated and developed in North America and Northern Europe (Dansero et al., 2019) define a heterogeneous scope of action in terms of the objectives, forms of governance, actions, and degrees of civil society empowerment (Sonnino, 2016). As pointed out by Dansero et al. (2017), both the scientific literature and the political and cultural debates on food policies differ in terms and concepts coexisting, also from a semantic point of view, showing the fluidity, complexity, and diversity linked to the geographical origin of the actions. As is well known, these policies were initially developed in cities in the United States, the United Kingdom, and Canada in response to problems related to access to food and health. However, the implementation of such approaches has infrequently sought a Mediterranean perspective that would rewrite the peculiar role of spatial and territorial dimensions in the relationship between food, cities, and agriculture, specific to Southern Europe. These countries are characterised by more localised and specialised agri-food systems, and food policies have been less widespread and are more recent (Dansero et al., 2019).

Agri-food systems in Mediterranean contexts have several dimensions: in addition to their economic and social relevance, they also assume a spatial importance and a historical, cultural, and sustainability value (Martinbo, 2021). This paper attempts to understand how to keep together the strands of investigation related to urban food planning with the literature on agri-food systems in local development in Mediterranean cities. This involves building a conceptual framework to investigate the spatial proximity of the production units of Rome’s agri-food system and their mutual relations.

The strand of studies of agri-food systems in local development is related from a wide perspective to the theme of specialisation looking at the concept of clusters introduced by Porter (1990; Porter & Ketsel, 2009) and the work of Krugman (1995) to analyse the role of spatial proximity and the specialisation of regional systems. Among Italian studies, the main reference is the contribution of Becattini focusing on districts as spatial organisations (Becattini et al., 2009; Viesti, 2019).

The localised production systems proposed by Courlet (Courlet, 2002; Courlet & Pecqueur, 1992) fit into this strand of literature, as a set of firms sufficiently connected and close to each other which produce goods for the same final market. These enterprises are characterised by their geographical and organisational proximity and by their historical and cultural links, which help to explain their reproduction and evolution over time. In this study, the need to analyse the geographical concentrations of specialised agriculture, food processing, and distribution companies in a given place is in the Localised Agri-Food Systems (LAFS) (CIRAD-SAR, 1996). These LAFSs are a conceptualisation of the role of local resource development in policy processes. Three elements characterise the LAFS: place, considered as terroir; social relations concerning trust and cooperation between the involved actors; and public and private institutions with their systems of formal and informal rules (Munchik, 2010).

Munchik (2010) expanded the definition of LAFS by describing them as “models of agri-food development based on the valorisation of local resources, more respectful of the environment, more respectful of the diversity and quality of agri-food products, more respectful of the dynamics of local development and current challenges in the countryside”. As discussed by Giacomini and Mancini (2015) the evolution of the concept of these systems was initially associated with spatial proximity but has more recently been linked to the local characteristics of the products, actors, institutions, and social relations that link food and place.

Torres Salcido and Munchik (2012) defined LAFS as an agri-food system in a specific area where actors seek to establish coordination and collaboration processes in terms of partnership, with internal management and regulation through sustainable actions. Indeed, LAFS aim to foster coordination between actors in the agri-food system by bringing out the interaction between public policies, organisations, and collective action from a sustainable development perspective (Arfini 2019).
et al., 2012; Giacomini & Mancini, 2015; Laminate et al., 2012). Collective action can be carried out by companies or institutions or by public-private partnerships (Bock et al., 2022; OECD, 2013), according to the local socio-economic and institutional settings (Mantino & Vanni, 2018).

3. The agri-food system of Rome

Rome has just under three million inhabitants, 13 % of whom are foreigners, which becomes five million if the metropolitan area is considered. Rome is the fourth largest European urban area after Paris, London, and Rhine-Ruhr, extending over almost one thousand and three hundred square kilometres, of which 45 % represent agricultural areas. Rome is seven times larger than Milan, and its surface area is as large as nine European metropolises put together, including Paris and Vienna (Agri Food Plan of Rome (AFPR), 2021). The city has 2.837.332 residents (Istat, 2021), plus an un-defined number of non-resident inhabitants. The complexity of the social fabric of Rome is distributed over an area undergoing constant transformations and expansion, in which the per capita income is higher in the central districts and tends to be lower in the suburban areas. Rome is a polycentric city, made up of neighbourhoods with a marked identity and numerous initiatives of social solidarity and activism. Due to its role as the capital, Rome hosts the headquarters of the main national bodies, various institutions, a relevant number of private companies, as well as the representatives of some international organisations. This framework determines a considerable flow of people who can be grouped into two macro categories: those who come to Rome for work reasons, and those who come for tourism. As a tourist city, the attractiveness of Rome is linked for the most part to its artistic, historic, and archaeological heritage, which is almost entirely concentrated in the downtown area, where the largest amount of accommodation and catering activities in the municipal area are concentrated. Until 2019, before the health emergency, some twenty-seven million tourists a year arrived in Rome (Agri Food Plan of Rome (AFPR), 2021).

The main sources of information on the Roman agri-food system were the databases of ISTAT and Infocamere and the surveys carried out by CERVED on the Roman agri-food system (Cannata & Cavallo, 2021), more than half are linked to catering, 23 % to the distribution phase, 14 % to commerce, and construction. Table 2 shows among the sectors that the tourism and food industry (c) and food business (d) are the main economic sectors of the city. The role of catering stands out, with a higher percentage impact on the entire sector, accompanied by olive culture in Sabina and viticulture in the Castelli area. The number of Rome-based companies in the last two census intervals has increased by 40 % in the Municipality of Rome, exceeding 2600 units. Data show a clear contrast with the metropolitan context, with the trends recorded at the regional as well as the national level. The average size of farm in Rome is approximately 16 ha, the result of the peculiarities of the Roman land network with the role of large properties, historically played by the families of the aristocracy, and by ecclesiastical properties. However, data in this case is also in clear contrast with the metropolitan, regional, and national levels, which amount to an average of 7–8 ha.

By examining the structural features of the capital’s productive fabric by size class, it is observed that just under 25 % of the Capitoline companies are represented by micro companies. However, this share remains lower than the figure for the metropolitan area where small companies represent about 32 %.

The distribution of farms by surface class is relatively more homogeneous than observed at the metropolitan level. In the capital, in fact, large farms with areas of over 100 ha, while representing less than 2 % of the Roman enterprises, occupy a Utilised Agricultural Area (UAA) of over 40 % of the total.

Table 1 presents the main economic sectors of the city. The role of services prevails in terms of the number of companies, followed by commerce, and construction. Table 2 shows among the sectors that make up the Roman agri-food system, the role of catering stands out, weighing over 50 % of the companies in the total sector, followed by the distribution phase which, as a whole, absorbs over 35 % of the production fabric of the entire agri-food system.

Table 1

| Economic sectors                   | Value | %     |
|-----------------------------------|-------|-------|
| Agriculture                       | 4713  | 1.45  |
| Industry                          | 1826  | 5.63  |
| Construction                      | 40,517| 12.48 |
| Transport                         | 12,748| 3.93  |
| Commerce                          | 96,811| 30.83 |
| Hospitality and restaurants       | 31,116| 9.59  |
| Other services                    | 120,427| 37.10 |
| Total                             | 324,592| 100.00|

Table 2

| Economic sectors                   | Value | %     |
|-----------------------------------|-------|-------|
| Agriculture and animal husbandry  | 4442  | 9.21  |
| Food industry                     | 1805  | 3.74  |
| Intermediation                    | 5763  | 11.95 |
| Distribution and commerce         | 11,182| 23.19 |
| Restaurants                       | 25,024| 51.90 |
| Total                             | 48,216| 100.00|

3 Roma Capitale, Resolution n. 148, 21 July 2020, “Linee di Indirizzo Strategico per il Turismo, FUTUROMA”.
Fig. 1. The agri-food system of Rome, a) districts, b) numbers of farms, c) number of food industries, d) number of business companies. Source: Own elaboration by Agri Food Plan of Rome (AFPR) (2021). Data are expressed in number of enterprises.
therefore, Sabina and the district of PDO oil.

These maps show the fragmentation of the Roman agri-food system and the need for coordination and connection between farming and processing companies, and distribution and catering. Despite the large number of PDO, and PGI should, the farms should qualify the agricultural offer does not meet the demands of the processing and catering sectors.

Between processing laboratories, catering companies, and logistics activities, there are currently 18,723 companies in Rome that operate in the intermediate stages and employ an estimated total of 289,424 people, with functions ranging from those undertaken by cash desk clerks in the organised distribution sector to those of managers and owners of small neighbourhood fruit and vegetable shops (Agri Food Plan of Rome (AFPR), 2021). Food processing and distribution companies and the other intermediate phases, inserting themselves between the production sector and the consumer and dictating the conditions of access for each to the other players in the supply chains, constitute a key factor for the remodelling of the Roman agri-food system in the era of post Covid recovery.

The commerce and catering sectors in a city experiencing over-tourism such as Rome suffer of a highly polarised offer between businesses characterised by low quality and a strong ability to compete on price and higher segment businesses with an offer aimed at wealthier consumer groups. However, in the Roman context, price does not always function as an element of recognition of the quality and local products are not easily recognised by tourists. The impacts of the pandemic have increased these critical issues.

According to the data estimation of the Agri-Food Plan of Rome (Agri Food Plan of Rome (AFPR), 2021) the cost of catering in the period preceding the Covid-19 epidemic constituted about 85% of the food sector.
expenditure of residents, commuters, and tourists and amounted to 12,530 million euros against a total expenditure of 14,721 million euros. Even the working remotely negatively affected the earnings of Roman restaurants, especially in areas with a high density of offices, as well as near schools and public establishments. According to the assessments of the Municipality of Rome, as an effect of the measures applied to contain the pandemic, the catering sector suffered an estimated negative decline of between 39.4 % and 45.3 % of the added value.

4. Results

The research results propose an idea of a city that reconstructs the relationships between spatial issues, market and citizenship, considering work, sustainability (in its threefold social, economic, and environmental dimensions), inclusion, and innovation towards the ecological transition. The AFPR identifies some strategic trajectories and places them within a vision for the future of Rome, alongside an implementation that looks at medium and long-term perspectives of public action. The ninety stakeholders involved within the participatory process assumed the role of collective action in the coordination between companies or local institutions or by public-private partnerships. The actors involved were members of the local production fabric, trade unions, universities, and representatives of the Third Sector.

The work process of the AFPR was structured in three phases, as shown in Fig. 2. The first phase of development of the analytical framework was conducted through the collection and analysis of data and the bibliography. In the second phase, the outcomes of the analytical work guided the organisation of the town meeting which allowed the identification of priorities. Sixteen in-depth study themes were then identified and entrusted to as many experts and scholars who drew up study sheets. The strategic guidelines were discussed with stakeholders.

The participation process started in early 2020 and ended in July 2021. The consultation process was divided into four phases:
1. First meeting: brainstorming and identification of key issues; the first round tables produced diagnostic cards and policy ideas.
2. Thematic tables: to collect and share opinions and proposals useful for the identification of areas of intervention in view of the town meeting.
3. Town meeting: evaluation and participation in the drafting of an instant report containing guidelines.
4. Final meeting: review and approval of the strategic lines of the AFPR.

The strategic orientation of the AFPR has developed an institutional ecosystem and building public-private-community partnerships involving, together with public actors, civic networks of social innovators, citizens, the school and university system, and the entrepreneurial fabric.

The AFPR is divided into seven strategic lines. The objectives, actions, implementing instruments, targets, and indicators for monitoring have been identified for each strategic line, together with the institutional actors involved in the implementation of each instrument and the implementing priority in terms of time, with respect to the short (SP), medium (MP), and long term (LP). In detail, this refers to a period of six months for the short term, between one and two years for the medium term, and more than two years for the long term.

4.1. Agriculture and countryside of Rome

The strategic intervention for Roman agriculture is one of the broadest themes of the Plan. Agriculture is broken down into six objectives and 12 actions articulated in more than 20 instruments. Table 3 summarises the main elements of the Plan. The farms of the Roman countryside are configured as a public infrastructure of productive, environmental, social, and cultural value for the city. Rome can and must be able to rebuild a relationship with its countryside, its products, with producers, and with companies. The landscape of the Roman

| Table 3 | The strategic lines of the Agri-Food Plan of Rome: agriculture and countryside of Rome. |
|---------|-------------------------------------------------------------------------------------|
| **Main targets** | **Main actions** | **Instruments** | **Priority** |
| Developing, diversifying, and protecting Roman agriculture, ensuring the sustainability of the agri-environmental system towards ecological transition | Increasing the supply of local products in collective catering, with particular regard to school canteens | Tenders and procedures for the purchase of school canteens in the township of Rome Capital. | ST |
| Promoting land access | Mapping of public land of Rome Capital | ST |
| Relationship with the Tiber within the Resilience Strategy | Control room for the prevention of hydrogeological instability and the identification of effective strategies for the monitoring, control, management, and protection of urban green area which also include the floodplains of the Tiber | ST |
| Promoting the diversification of agricultural activities and multifunctionality | Involving farmers for land maintenance activities (e.g., maintenance of drains and drainage channels, wells and road edges, snow clearing, minor road and path maintenance) | Promotional catalogue of hospitality facilities in the Roman countryside (under the “Qualità Roma” brand) | ST |
| Promoting sustainability and waste recovery | Strengthening the role of agritourism and rural tourism and as an element of the Roman tourist offer, consolidating their role for the development of experiential tourism as well as congress tourism. | Promotional catalogue of farms (under the Quality Rome brand) | ST |
| Building a rural development policy for Rome | Increasing the quality of services of multifunctional and multi-entrepreneurial agricultural diversification activities | Training programs | MT |
| | Promoting the circular economy | Encouraging the construction of networks | ST |
| | Characterising and mapping the agricultural and rural territory of Rome | Changes to the Master Plan and Land Use Plan of Rome | ST |

(continued on next page)
The strategic lines of the Agri-Food Plan of Rome: food identity and Roman production.

### 4.2. Food identity and Roman production

This theme plays a central role in the Plan and acts as a link to marketing and brand management issues. The products, traditional recipes, and operators constitute a heritage of great value. The AFPR assigns a central role to the reconstitution of the Roman agri-food identity; promoting the recognisability and distinctiveness of typical local products means building a culture based on a solid identity characterisation of Roman food. This goal will be achieved by initiating a significant cultural transformation of the productive fabric through training and business culture. The main actions focus on promoting brand tools that make quality products, shops, restaurants, and trattorias identifiable for citizens and tourists. Table 4 summarises the main elements for reinforcing the Agri-Food identity of Rome.

### 4.3. Roman markets and short food supply chains

The network of 144 district markets in Rome is a central public infrastructure for the city, its inhabitants, and its productive fabric. The markets play a key role in the construction of the Roman agri-food identity linked to strategic line no. 2. The Plan proposed the restructuring of Rome's local markets according to a hierarchical structure that develops two functions: markets as places for social, educational, and cultural initiatives; and markets as logistical hubs for the Roman agri-food system on a district scale. The strategic axis between the network of public markets, the city's Agri-Food Centre, and the municipality of Rome must be strengthened. The system of short supply chains must find new sites through the relaunch of farmer's markets, and support for Solidarity Purchased Groups (SPGs) and companies that practice direct sales of roman farms. This strategic line is articulated in six objectives and a dozen actions summarised in Table 5.

### Table 3 (continued)

| Main targets | Main actions | Instruments | Priority |
|--------------|--------------|-------------|----------|
| Developing a Roman food district | Developing projects, identifying areas and resources for the Food District | ST | |

### Table 4

The strategic lines of the Agri-Food Plan of Rome: food identity and Roman production.

| Main targets | Main actions | Instruments | Priority |
|--------------|--------------|-------------|----------|
| Characterising and guaranteeing the products, producers, and companies of the Roman countryside and supporting internationalisation | Supporting inter-professional agreements for the main Roman agri-food chains | Wine list, bread charter, and vegetable map of the countryside for the companies of the Roman Ho. Re. Ca. | ST |
| Protecting historic Agri-Food shops | Promoting the adoption of the Rome Quality brand for Agri-food production workshops and monitoring their quality level | ST |
| Rearranging the typical and traditional original products | Optimising the management of typical products by offering services and hospitality and to enhance Associations for the management of the symbolic places of the city | Municipal register of typical Roman specialities and the Municipal (Dec.C. O.) or Municipal (D.O.M.) Designation of Origin | MP |
| Adopting widespread tracking systems | Promoting traceability and blockchain systems under the public guarantee | Promotion of the adoption of a public system for tracking services for home delivery | MP |
| Enhancing the Roman countryside, companies, and products | Promoting experiential tourism in the Roman countryside | Revitalising gastronomic itineraries (in coordination with the Rome Quality Brand circuit) for experiential tourism in the farms of the Roman countryside | MP |

| Main targets | Main actions | Instruments | Priority |
|--------------|--------------|-------------|----------|
| Redesigning the function and structure of the network of public markets in Rome | Promoting the markets by extending the opening hours. Opening markets to cultural and social initiatives (concerts, seminars, book presentations, film screenings, meetings, and exhibitions) | Masterplan of the market of Rome | MT |
| Protecting historic Agri-Food shops | Promoting the adoption of the Rome Quality brand for Agri-food production workshops and monitoring their quality level | ST |
| Optimising the management of typical products by offering services and hospitality and to enhance Associations for the management of the symbolic places of the city | Municipal register of typical Roman specialities and the Municipal (Dec.C. O.) or Municipal (D.O.M.) Designation of Origin | MP |
| Adopting widespread tracking systems | Promoting the adoption of a public system for tracking services for home delivery | Promotion of the adoption of a public system for tracking services for home delivery | MP |
| Enhancing the Roman countryside, companies, and products | Promoting experiential tourism in the Roman countryside | Revitalising gastronomic itineraries (in coordination with the Rome Quality Brand circuit) for experiential tourism in the farms of the Roman countryside | MP |

Table 5

The strategic lines of the Agri-Food Plan of Rome: short food supply chain and neighbourhood markets.

| Main targets | Main actions | Instruments | Priority |
|--------------|--------------|-------------|----------|
| Redesigning the function and structure of the network of public markets in Rome | Promoting the markets by extending the opening hours. Opening markets to cultural and social initiatives (concerts, seminars, book presentations, film screenings, meetings, and exhibitions) | Masterplan of the market of Rome | MT |
| Protecting historic Agri-Food shops | Promoting the adoption of the Rome Quality brand for Agri-food production workshops and monitoring their quality level | ST |
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|--------------|--------------|-------------|----------|
| Redesigning the function and structure of the network of public markets in Rome | Promoting the markets by extending the opening hours. Opening markets to cultural and social initiatives (concerts, seminars, book presentations, film screenings, meetings, and exhibitions) | Masterplan of the market of Rome | MT |
| Protecting historic Agri-Food shops | Promoting the adoption of the Rome Quality brand for Agri-food production workshops and monitoring their quality level | ST |
| Optimising the management of typical products by offering services and hospitality and to enhance Associations for the management of the symbolic places of the city | Municipal register of typical Roman specialities and the Municipal (Dec.C. O.) or Municipal (D.O.M.) Designation of Origin | MP |
| Adopting widespread tracking systems | Promoting the adoption of a public system for tracking services for home delivery | Promotion of the adoption of a public system for tracking services for home delivery | MP |
| Enhancing the Roman countryside, companies, and products | Promoting experiential tourism in the Roman countryside | Revitalising gastronomic itineraries (in coordination with the Rome Quality Brand circuit) for experiential tourism in the farms of the Roman countryside | MP |

Table 5

The strategic lines of the Agri-Food Plan of Rome: short food supply chain and neighbourhood markets.

| Main targets | Main actions | Instruments | Priority |
|--------------|--------------|-------------|----------|
| Redesigning the function and structure of the network of public markets in Rome | Promoting the markets by extending the opening hours. Opening markets to cultural and social initiatives (concerts, seminars, book presentations, film screenings, meetings, and exhibitions) | Masterplan of the market of Rome | MT |
| Protecting historic Agri-Food shops | Promoting the adoption of the Rome Quality brand for Agri-food production workshops and monitoring their quality level | ST |
| Optimising the management of typical products by offering services and hospitality and to enhance Associations for the management of the symbolic places of the city | Municipal register of typical Roman specialities and the Municipal (Dec.C. O.) or Municipal (D.O.M.) Designation of Origin | MP |
| Adopting widespread tracking systems | Promoting the adoption of a public system for tracking services for home delivery | Promotion of the adoption of a public system for tracking services for home delivery | MP |
| Enhancing the Roman countryside, companies, and products | Promoting experiential tourism in the Roman countryside | Revitalising gastronomic itineraries (in coordination with the Rome Quality Brand circuit) for experiential tourism in the farms of the Roman countryside | MP |

Table 5

The strategic lines of the Agri-Food Plan of Rome: short food supply chain and neighbourhood markets.
4.4. The future of the restaurant business of Rome

Catering is one of the sectors most affected by the impacts of the Covid-19 health emergency. With reference to the sector of public businesses, the Roman entrepreneurial basin is one of the largest in the country. This strategic line was much discussed in the participation process, not only because of the role that catering plays in Rome's tourist offer, but especially because of the heavy effects of the health emergency on this sector of the Roman Agri-Food system. Over 90% of the entrepreneurial structure comprises micro enterprises which were heavily impacted by the pandemic. The action of the Plan for this sector is concentrated in different directions. In the first place, support for the productive fabric and for work, also accompanying the conversion of companies in crisis, is one of the priority objectives of the Plan. This action must be accompanied by a profound requalification towards innovation and professional as well as managerial training. The integration between the catering sector and territorial productions, together with the enhancement of the local cuisine, constitutes a fundamental lever for the economic recovery of the sector and the relaunch of the entire Roman agri-food system. Obstacles related to the efficiency of the logistics of supply chains must be overcome.

4.5. Innovation, sustainability, and research for the future of the agri-food system of Rome

Universities, international research and cooperation centres, Italian research institutes, start-ups, and incubators dealing with issues related to agri-food represent a large network around which to build and promote research and innovation for the productive fabric and the territory of Rome, with particular regard to the issues of the circular economy and sustainability. These issues require the implementation of a profound cultural transformation by restoring centrality to the role of training and business culture.

4.6. Logistics planning and management, and the food security of Rome

The management of logistics and flows of agri-food products in the Roman area must be profoundly renewed, with particular reference to perishable products. Logistics represents a key factor in competitive advantage for agri-food companies. The costs associated with transport and storage are an important factor in determining the price of agricultural production. The Plan identifies the need for medium to long term infrastructure interventions on the storage capacity and the logistical equipment of the Roman agri-food system. Last mile logistics within metropolitan areas have significant impacts in terms of traffic management and the safety of supplies. The Covid-19 pandemic has highlighted critical issues with particular reference to risk management and the resilience capacity of the Roman food system. The management of surpluses of the agri-food system against food waste is a priority action for the environmental and social sustainability of the city and for the fight against poverty.

4.7. Rome as the agricultural and food capital; communication and territorial marketing

The “Agro romano” countryside, products, farmers, and landscapes play a key role in promoting the image of Rome as the capital of food. The Plan aimed to rediscover, both among citizens, institutions, and operators, and among the international public, the relationship between Rome and its agricultural and food ‘surroundings’, its ancient food and wine culture. A profound paradigm shift is needed to put food and the “Agro” among the key levers of Rome’s tourism promotion actions. There must be a renewed association between food and sustainability in its triple social, economic, and environmental dimensions, building relationships capable of reconstructing and interpreting the vision of a Mediterranean agri-food capital for the city and its international promotion. Based on these elements, the Plan promotes an integrated communication and marketing action for food, wine, and the Roman countryside.

In April 2021, the municipality of Rome approved the resolution that lays the foundations for a Food Policy of Rome. This is an act initiated by the Food Council for the Food Policy of Rome which has already been in place since 2019. The Council gathers a network of over fifty associations, farms, scholars, and expert subjects from an academic context. The AFPR represents the starting point for the city’s most recent government elected in October 2021. The work conducted by the Municipality of Rome, which has introduced agriculture, food, and the environment within the Strategic Urban Economic Development Plan with a medium-long term time horizon of 2030, and which is parallel is leading the construction of a Food Policy, constitutes an example for the Italian context as well as other Mediterranean ones.

5. Discussion

The AFPR has rethought cultural dimensions, placing agriculture and food as the identity dimension and place branding (Amin & Thrift, 2007; Basile & Cavallo, 2020) at the core of the sustainable economic development of Rome. The landscape and the Roman countryside, together with typical products and markets, are read as public goods and placed at the centre of the strategy for enhancing food and local resources. Innovation entrusted to the integration of a local network of universities, research centres, and the third sector, is the key to relaunch the local productive fabric in the post-pandemic period of recovery (Bisoffi et al., 2021). The role assigned to the formation of human capital is central and becomes the key lever to support work and employment (Blay-Palmer et al., 2020).

The same themes surrounding the fight against poverty and waste have entered the plan within actions that not only strengthen the network of already active third sector associations but assign public institutions a role of guidance. Coordination between the third sector, the agri-food system, and institutions to redistribute unsold food and combat waste has been strengthened with the pandemic, leading to virtuous dynamics. Logistics have been assigned a key role as a lever of competitiveness and sustainability of urban development (Paciarotti & Torregiani, 2021).

In the AFPR, the process of the re-localisation and regionalisation of food has been enhanced through the reconciliation of local relations between actors, productions, and urban places of food (i.e., short food supply chains and neighbourhood markets). The main elements (the activation of local resources, human capital, the role of institutional actors and networks) represent the key variables for local development in the strategic vision. The empowerment of stakeholders in the participatory process aims to transform this element from a conjunctural into a structural one. In this way, stakeholders would become part of the collective action in a process of coordination with institutions (Salone, 2005; Bock et al., 2022). The case of Rome allows a critical reflection on the potential of urban food policies to address, in addition to the spatial, socio-economic, and environmental dimensions, aspects related to local development and marketing and enhancing a recognisable city brand. The AFPR has acted on agri-food policies integrating and coordinating objectives, different policies, interests and actors, levels of government, and rebalancing rural urban relationships (Di Donato et al., 2017).

The AFPR's process has revealed a complex relationship between scale and local institutions. Firstly, different approaches have shown the need to identify the “optimal scale” (Kneafsey, 2016; Zasada et al., 2019). The characteristics of the agri-food system show that the borders cannot be identified ex ante. The Rome area depends on the institutional role of the capital, the metropolitan area (former province), and part of the rest of the other neighbouring municipalities. A broad regional system consisting of several systems can be considered (Brogna & Olivieri, 2016; Olivieri, 2021). The second issue refers to the dualism of government and governance: the ability of decision-making centres or...
meta-institutional decision-making centres to act as local development actors.

The Covid-19 pandemic has further shown the fragility of value chains and contributed to worsening food security (Béne, 2020; Laborde et al., 2020). However, it has also introduced an opportunity for transformation (Bisoffi et al., 2021) by building networks between farms, consumers (Lioutasab & Charatsari, 2021), and the private sector (Darnhofer, 2020; Dubbeling et al., 2016), and enhancing urban resilience and sustainable tourism (Haywood, 2020).

6. Conclusions

This paper examined the research pathway related to the drafting of a strategic plan for Rome’s agri-food system. The research proposed a theoretical framework that integrates urban food planning studies with the literature exploring agriculture and food in local development. This approach allowed, in the case of the AFPR, the integration of several spatial and relational issues traditionally linked to different policy areas into a unified strategic design on a regional scale. The path followed by the authors with the AFPR maintained the objectives of improving the competitiveness of the local food system and its economic development, also in its spatial dimension. Spatial and economic planning integrate these issues is particularly important in Mediterranean cities, where the agri-food system requires support for local development; at the same time, planning plays an important role in the urban agenda for the ecological transition. Furthermore, the role of the institutional setting is crucial for competitiveness at metropolitan scales and the sustainable provision of local public goods. This approach overcomes the fragility of food policies based on participatory processes and collaborative mechanisms, which are often ineffective in supporting institutional settings to govern social and cultural economic changes. The analysis of the Roman case allows us to draw some considerations on the future of urban food planning, particularly in the Mediterranean context. The strategic design launched in Rome shows the need for a local approach that considers a rural region with a polycentric urban development where relations between urban and rural can be reciprocal. Experience with the AFPR has shown the centrality of a place-based approach, especially in Mediterranean contexts. This paper also discussed the impacts of the pandemic and its role in accelerating the transition towards sustainable agri-food systems. However, a limitation of this work lies in the difficulty of transferring the results of the Roman experience to other contexts.

Further research efforts could be directed at integrating the economic planning for sustainable food into European policies. In the ‘Farm to Fork Strategy’, the European Commission promotes a comprehensive approach to achieving food sustainability and urges national, regional, and local institutions to enter a broad debate on sustainable food and rural policies. The Commission is committed to formulating a legislative proposal for a sustainable food system by the end of 2023. Likewise, useful efforts can be made to redesign the National Strategic Plans of the Common Agricultural Policy.

Data availability

Data will be made available on request.

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