1. Why do we need urban food policies?

Introduction

In the last decades, cities have come to the fore as new crucial actors in national, regional and global food security. For a long time, urban environments had not been considered important food security players, as food was meant to be produced exclusively outside of them. Urban citizens – either those involved in the distribution or consumption phases – were considered marginal within the entire food supply chain. However, several studies (Deakin et al., 2015; Mendes, 2008) have demonstrated the role that urban food policy governance can play in creating a more sustainable agri-food system. This is particularly true for the Mediterranean region, where social, political and economic factors will inevitably make cities the new frontier in the new geography of food security (Sonnino, 2016). There are several reasons for this. First, the Arab Spring and food riots have dramatically highlighted that if food insecurity is coupled with other grievances such as demographic stress, climate change and existing socioeconomic marginalisation, it can be a trigger of social unrest and political instability, especially in cities. Second, the fragility of the agri-food system makes Mediterranean countries vulnerable to endogenous and exogenous threats (i.e. environmental disasters, food price volatility). Third, the tremendous urbanisation rates on the southern shore of the Mediterranean push mayors and urban planners to rethink their food systems to meet citizens’ demands. Therefore, the region’s agri-food chain will need to change in a wiser and environmentally sustainable way by increasing productivity without threatening ecosystems and biodiversity. These phenomena will involve cities from the two shores of the Mediterranean, although at different scales. One of the dimensions linked to food security that mayors and citizens will need to tackle is food waste management, specifically, reducing the unacceptable amount of food losses and creating food supply chains based on a closer linkage between producers and consumers. This will have an impact both in social and environmental terms, for instance by considering the amount of greenhouse gas (GHG) emissions produced by the agri-food system. This

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Cities inevitably need to start to fill the political vacuum that states have left by using public procurement to shape their policies in a more sustainable way and give citizens the right incentives to start up a true food revolution.

Cities need to evolve to promote a new vision of food supply chains from farm to landfill, which strongly integrates urban, peri-urban and rural environments through a circular approach. In other words, the time is ripe for urban food policies that ensure access to sufficient nutritious and environmentally sustainable food for all and are perfectly integrated with non-urban environments. The aim of this chapter is to offer a critical assessment of the new Waste Management Plan in Rome by focusing on its main food-related policies (e.g. the “zero impact food markets” and the actions taken to tackle food losses and waste). In order to achieve this goal, the chapter is divided into three sections. The first offers a concise review of the efforts taken at the global level that have transformed cities into crucial food security players. The second part describes the new Waste Management Plan in Rome through a critical analysis of its strengths and weaknesses, as well as shedding light on the need for the city to eventually launch an effective food policy. The final section draws some conclusions and introduces a couple of topics future research will need to focus on.

Some initiatives at the international level

Due to the lack of a clear theorisation of what food policy actually means, existing literature has focused so far on different aspects of urban food governance. Some authors (Blay-Palmer, 2009; Sonnino and Spayde, 2014); have analysed food policy councils, whereas others have tackled planning systems (Morgan, 2015) or public procurement policies (Morgan and Sonnino, 2008). Cities have indeed followed different strategies to implement their food-related activities: some have developed comprehensive strategic documents and long-term plans, while others have worked more on sectoral projects (e.g. school meals reforms). Moreover, some mayors have set up new institutional
arrangements (i.e. food councils) to promote coordination at the implementation stage or they have appointed new staff or created new offices working with cross-departmental teams (De Cunto et al., 2016). No matter the approach chosen, cities are undoubtedly recasting themselves as key actors in the food system. All the documents issued have some common denominators: a systemic approach to food; an emphasis on civil society involvement in governance; a flexible approach to re-localisation; a new focus on translocalism (Sonnino, 2017: 1).

The role of cities as new agents of change in the global food system has emerged in four ways. First, they have progressively gained important recognition at the UN level, not only thanks to the Agenda 2030, but also through the so-called New Urban Agenda. Both clearly call for inclusive, safe, resilient and sustainable cities. Second, the Paris Agreement for the first time recognised the role of cities in a universal, legally binding document. Third, at the EU level cities have been identified as key players in the fight for sustainable development and they have gradually started to play a significant role also thanks to several EU-funded projects. The EU is a perfect case study, because most of its citizens live in cities. In addition, a large part of EU policies, legislation and funds (De Cunto et al., 2016: 49–53) are implemented in cities. Cities are also key leading innovation hubs, as well as laboratories where urban, peri-urban and rural food systems can coexist. It is no coincidence that the Pact of Amsterdam in 2016 launched the so-called EU Urban Agenda by identifying three pillars: better regulation, better funding and better knowledge. A recent report issued by the European Commission (European Commission, 2017) highlights the potential of the agenda to serve as a common framework for urban policy initiatives launched by the EU's institutions. Furthermore, the new EU Consensus on Development clearly recognises the role of cities as “hubs for sustainable and inclusive growth and innovation” (European Union, 2017: 31) by promoting sustainable land use planning, equitable management of land markets and resilience to shocks through a low-emission and climate resilient economy. Finally, the growing role of cities in regional and global food security has emerged through the so-called translocalism. In the last years a variety of cities networks have blossomed at the global level. Among them, the most significant are EUROCITIES and the Milan Urban Food Policy Pact, but there are others, such as C-40, the Global Covenant of Mayors for Climate and Energy and the 100 Resilient Cities grouping. All these fora have been working a great deal to share lessons learnt and keep the debate alive on the issues of sustainability, climate change adaptation and resilience. In addition, their role is important, as they create true alliances which do not leave cities alone especially when their managers are not willing to invest in sustainability.

2. The new Waste Management Plan in Rome

Objectives

For years Rome has been considered one of the leaders in the quest for a more sustainable food system, with a series of initiatives launched in this field. One of the most relevant was the school meals reform which allowed the city to become until 2008 a true model of an “economy of quality” (Morgan and Sonnino, 2008). At the beginning of the
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2000s, the city decided to launch an impressive school meals revolution which delivered “environmental, economic and social benefits of sustainable development” in and beyond the food system (Morgan and Sonnino, 2008: 67). This was made possible by using the unique economic advantage that the public sector has: the complete control of the public procurement market. By putting together consumers and producers, city officials and non-profit organisations, Rome set up an innovative public procurement market for catering companies based on seasonality, variety, locality and nutritiousness (Morgan and Sonnino, 2008: 80). Unfortunately, this revolutionary, dynamic, integrated and inclusive system has been dismantled in recent years and the “Roman model” has been negatively affected by corruption, political scandals and bad management of public resources (“Roma ladrona”). Waste management, which is a crucial part of a city’s food system, has not been immune to these dynamics.

At the moment, all actions undertaken by the city on sustainability are linked to the Sustainable Energy and Climate Action Plan (SECAP), to be issued by 2019. The plan integrates several activities, not only the participation in global networks of cities, but also the initiatives taken on mobility (i.e. the Sustainable Mobility Plan), resilience (i.e. the Preliminary Resilience Assessment), smart infrastructures and waste. In this context, in March 2017, Rome launched its new Waste Management Plan. The Plan, called Piano per la riduzione e la gestione dei materiali post consumo (Comune di Roma, 2017b) covers a five-year period and is based on two pillars: prevention and reuse on the one hand, collection and recovery on the other. The plan is probably the first in Italy which theoretically integrates the reduction and disposal dimensions. For instance, it does not refer to waste but rather to “post-consumption materials”. In order to highlight its circular rationale, the plan envisages 12 kinds of actions,2 which are expected to produce a decrease of around 200,000 tons of urban waste, leading to a significant reduction from the current 599 kg to 522 kg per capita of waste generated by each citizen every year. This result will align Rome with the levels registered at the national (486 kg per capita in 2016) and EU levels (476 kg per capita in 2015) (ISPRA, 2017). All these actions will be accompanied by a significant increase in the percentage of separate collection of waste, with the aim to shift from the current 44% to 70% in 2021, mainly through an extension of the door-to-door collection system, which will involve 1.2 million inhabitants in the next months. The infographic below summarises the main targets set by the Waste Management Plan.

The new plan foresees the intervention of several actors. The main ones are the Environmental Sustainability Assessorship and the Environmental Department. In addition, due to the complexity of the topics and actions envisaged, these two actors will be supported by other players, such as the Finance Assessorship, trade associations (Confartigianato, Confesercenti, Confindustria, etc.), the 15 city districts (municipi) and the public waste company (AMA). While the Environmental Sustainability Assessorship has indicated the political priorities, the Environmental Department is working to issue the necessary administrative actions and procedures to enforce such political guidance. The two main projects dealing with food policy in the plan are “zero impact food markets” and the actions to tackle food losses and waste.

2. Green card; reduction of packaging; increasing use of the deposit scheme; fight versus food losses and waste; household and community composting; reusable nappies; creation of “Reuse Hubs”; green public procurement; eco-events; waste tax reform; reuse of garden waste; management of waste from the building sector.
“Zero impact food markets” and the fight against food losses and waste

Rome is a very unique city in Europe as, despite its huge territory, there are several local food markets on its area. Now the goal is to reduce their environmental impact in terms of waste production and redistribution of surplus food. Already in 2015, the city extended separate waste collection to local food markets with the aim of collecting organic waste, paper boxes, cardboard and all plastic needed for packaging. The new plan envisages a nine-month pilot project to started in April costing around €400,000, which will involve 15 local food markets, one for each district. The goal is to have the lowest possible level of residual waste, by recycling and reusing all kinds of materials and redistributing surplus edible food. In this sense, in 2017, a first test was conducted in the Montagnola food market (in the southern part of the city). Working tables have been activated with trade associations, charities and non-profit actors to extend this test to other local markets. The pilot project will be led by Roma Sociale Foundation who will train a total of 20 people for nine months. The 2018 pilot project will be key not only as it will involve a plethora of public and private actors but most of all because it will help to collect significant data to eventually launch the reduction of waste taxes (TARI), which should be replaced by a new system. These data will allow how much waste (including food) is saved by reducing costs for disposing of it to be calculated. City officials estimate that around 1,000 tons of food will be saved, with significant savings for the city's budget.

Another sector which is likely to reshape the landscape of the Roman food system for the positive regards the broader initiatives to fight against food losses and waste, in line with the new national law (the so-called Gadda Law). To start with, they will involve food which is not consumed, targeting restaurants and offering them some alternatives, such as the so-called “family bag”. Second, the plan will focus on food which is not served by activating a system which enables it to be stored and transported to charities. Finally, the projects will deal with food which is close to its expiry date or which has packaging defects. The main targets in this sense will be big, small and medium shops and supermarkets. To be effective the system should first of all map all businesses which are willing to take part in this project. Then, it will be essential to organise the collection by also involving charities which have canteens and storage rooms. For this reason, Rome will sign memoranda...
of understanding with all non-profit stakeholders which can fulfil these activities. Other solutions may be offered by digitalisation, as there are many apps already available on the market which are successfully tackling these phenomena (e.g. LastMinuteSottoCasa or My Foodie). This new sustainable approach to catering services may be extended to others, such as company canteens, with initiatives aiming to reduce waste (i.e. by banning the use of plastic cutlery), increase the use of dispensers for drinks or tap water in public places (e.g. bars, restaurants, pubs, pizzerias, etc.) and even by testing deposit systems.

The two projects present however some big challenges. The main one regards the incentives for shops and trade associations to support this initiative. The waste tax reduction is definitely a good one, but some administrative work is still needed for instance to revise the city regulation on waste tax. The review of the regulation will be accompanied by an accurate mapping of the real demand for surplus food and then a data certification process, which will be undertaken jointly by the Environmental Sustainability and Finance Departments. A successful solution would be to launch a Phase 1 with a fixed cap of requests for tax deductions. This would help prevent an excessive number of requests and give time to successfully map the real demand for food which could be donated, before extending it through a Phase 2. Another solution would be to launch these initiatives in a specific district to work as a pilot for the others. At the moment, the city has established a working table with charities and non-profit organisations which have dealt with food donation for decades (e.g. Banco Alimentare). The tax reduction, which may generate up to 30% savings for subjects supporting the initiative, will obviously be proportional to food donated, and should be operational between 2019 and 2020.

**Critical aspects**

The actions envisaged in the plan are very ambitious and if successful Rome may actually (again) become a model and a leader in the sustainability sector. However, many challenges can be identified. The first is the current chronic fragility of the Roman waste system. At the moment, Rome can count only on four plants for its residual waste, which are not enough to process the 4,600 tons of waste generated every day. Hence, most of waste sorted is sent to third plants for processing, which represents a further cost for the city. Such fragility means that whenever one of the city plants is not working at its maximum capacity (for instance due to maintenance works), the cycle gets paralysed. The Mayor of Rome Virginia Raggi has explained that this weakness stems from the decision taken in 2013 to shut down the Malagrotta landfill, back then the biggest in Europe. Unfortunately, this decision was not accompanied by the complementary creation of new infrastructure that AMA could use. In other words, since 2002 the city has done very little to set up a modern waste infrastructure, thus falling into a chronic, relentless “trash crisis”. Therefore, the City Council has identified two locations for creating composting plants and one for plastics recycling. The new waste infrastructure will help Rome not only to be more autonomous in managing organic waste, but also to save the money (up to 30%) needed today to transport it to other plants outside the region. Yet, this process will take years, not only due to bureaucratic reasons (i.e. authorisations) but most of all due to the inevitable
opposition of citizens who live close by these plants. Such mistrust is probably the biggest challenge to be faced by any political authority. The scandals linked to the infiltration of criminal organisations in waste management is still very strong in the population. In this sense, the city is trying to identify the best technologies in terms of environmental impact, while also working with local communities on other aspects such as household composting, prevention of waste and community composting, to show the population the benefits of recycling and composting waste. Citizens’ participation and empowerment is essential to allow the city to overcome this crisis until new plants are established.

In the meanwhile, it is clear that only by increasing the separate collection of waste will Rome manage to reach the target of 65% to get out of this emergency situation and to plan future steps in a more effective way. Despite all these obstacles, Rome is in the top-10 of biggest EU cities in terms of percentage of separate collection of waste, a result which is even more significant as the city also collects organic waste. The graph below clearly explains the current infrastructural weakness of the city.

The second main problem regards the lack of proper intra-institutional cooperation. Waste management is a complex topic, which involves many actors such as cities, regions and the central government. To be effective, all these three levels need to work in a synergic way. In the case of Rome, the main challenge is to create a proper waste industrial management, which involves not only the city and its region, but the entire country. Like all huge European metropolises, Rome will never be able to deal autonomously with its waste without a national system supporting it.

Rome is huge and very highly populated and therefore needs to be properly supported by the other regions.

Third, there is a problem of citizens’ education. It will not be possible to achieve any of the goals set in the plan if the Roman population is not fully involved and committed to these activities. Education towards a more circular and sustainable lifestyle and food system needs to start in schools and involve families and local communities. The legacy of the “school meals revolution” and the SEPAC could be an important

3. The region will finance the creation of 80-ton machines able to collect organic waste. These machines will also be installed in the urban gardens (orti urbani).
starting point. Yet, in order to make it more effective, there is the need for stronger leadership and protection at the officials’ level as well as the clear commitment of political authorities. This has been very apparent in the case of the door-to-door collection system, which has paradoxically triggered the so-called “waste migration” phenomenon. In some districts (such as V and IX) this system has been organised in a hasty and fragmented way, with only a part of the population covered by it. Therefore, citizens have literally started to move waste to those parts covered by the traditional collection system, creating serious management problems for AMA. In addition, such a hasty process has produced an unbalanced distribution of human resources, as most of the personnel have been shifted from street sweeping to door-to-door collection. Now a reorganisation is needed in order to have more effective waste collection. This work is being done in the X and VI districts, where the new system was launched in 2018 with a mapping and then a distribution of new kits to the citizens. A good signal is the new memorandum of understanding signed with the National Consortium for Packaging (Consorzio Nazionale Imballaggi – CONAI), which will support the city in these activities.

Is the time ripe to launch a Rome food policy?

The new Waste Management Plan and particularly its food-related activities offer Roman policymakers the chance to reflect upon the possibility to launch a comprehensive Roman food policy. Rome has some unique features which make it a very suitable place to set up this policy. Rome has a long history of sustainable food systems, with several activities launched in the past years such as the “farmers’ markets” (Marino, 2016) and the above-mentioned “school meals revolution”. Now the time is ripe to recover that spirit and to integrate these initiatives into a common framework. Rome has a peculiar urban fabric, which integrates city and countryside, and several local food markets. A food policy would help to overcome the current fragmentation of plans and activities by avoiding the risk of a silos approach. A systemic approach which includes all these plans within a comprehensive strategy would bring more clarity and make it easier to understand who does what. This is even more important as, due to the complexity of the topics, several actors are inevitably involved in the implementation phase. Finally, Rome has a vibrant civil society which is ready to embrace radical change and to fight to set up a more nutritious and environmentally sustainable food system. Rome thus provides the best soil to create a solid linkage between urban, peri-urban and rural ecosystems by linking producers and consumers.

However, there are some obstacles which make it harder to reach this goal. First, the feeling of coping with a constant “trash crisis” overshadows other initiatives and makes it apparently impossible to think about some more innovative activities. In addition, the school meals reform highlights how city officials need to be put in the best conditions to do their work, and to be protected by decision-makers. Second, there is a problem of education. The city needs to invest more in educating citizens about the need to start a revolution for a better and more sustainable food system. Finally, policymakers have to adopt food policy as a clear political priority. This is the necessary precondition to make possible a long-term vision of alternative, shorter and sustainable food chains.
3. Conclusions and future areas of research

The sections above have highlighted that there are several elements which now allow cities to be considered crucial actors in the global food system. Cities inevitably need to start to fill the political vacuum that states have left by using public procurement to shape their policies in a more sustainable way. The time is ripe for them to launch effective food policies based on a holistic approach in which food is embedded with several other dynamics, such as waste management, public procurement, urban planning and climate change adaptation. This implies an institutional change, as food charters and strategies need to be accompanied by new institutional settings (i.e. food policy councils, new departments), which gather several stakeholders at all decision-making levels. This also implies empowering those people at the bureaucratic level who are willing to adopt innovative and more sustainable solutions. EU-funded projects could play an important role as they can facilitate the creation of specific departments, hence the appointment of skilled people who are motivated to work on these topics.

Against this backdrop, the Roman model can offer several lessons learnt to other Mediterranean cities. To start with, Rome is a perfect example of a city which strongly integrates urban, peri-urban and rural agriculture. Rome is one of the biggest cities in Europe by area dedicated to agricultural activities. In addition, Rome has started to successfully manage alternative food systems in several city districts, such as urban gardens or farmers’ markets (Marino, 2016). Moreover, the school meals revolution has shown how public procurement can shape market choices in a sustainable way, with important positive implications for the local, regional and national agri-food chain. Unfortunately, the Roman case also highlights that without a strong vision and alignment between sectoral food policies and political priorities all initiatives are doomed to fail. In this case, international cities networks can be important to protect these policies from sudden political changes, as these alliances can help develop mechanisms which protect food policies from electoral cycles. Furthermore, Rome shows that only through education can mayors contribute to giving citizens the right (not just economic) incentives to start up a true food revolution based on a short supply chain, seasonality and a closer linkage between urban, peri-urban and rural food systems. Finally, the Roman example demonstrates that the best recipe for making cities more sustainable is to set up participatory approaches. Citizens need to be involved both in the design as well as the implementation phase of these policies. In other words, they have to feel part of a common struggle for a more durable and healthier food system.

Research can definitely complement this quest for sustainability. There are two main topics future work will need to focus on. The first is a true theorisation of what a food policy really means. This will help not only to identify indicators to monitor performances in a longitudinal way, but also to measure the real impact of cities in changing food systems. The second topic regards the need to better grasp the urban-rural linkages and the reconnection of cities with the countryside. No food revolution will be ultimately successful if it does not interlink all actors involved in national, regional and global food systems.
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