Connecting food systems and urban planning
The experience of Portland, Oregon

Nunzia Borrelli

The main aim of this chapter is to analyse how food systems can be integrated into urban and spatial planning in a more efficient way, using the city of Portland in Oregon as a case study.

Portland is often cited as an example of a city with strong land use planning controls. This is largely the result of state-wide land conservation policies adopted in 1973 under Governor Tom McCall which strongly aim to preserve the peri-urban and rural area, as well as food production, around the city.

Over the last few years Portland has been cited for its strong attention to food systems and food planning. The City of Portland has recently updated the city’s 1980 plan and the 1988 Central City Plan in a document called the Comprehensive Portland Plan. In order to develop such a plan, a wide examination of food issues was developed in a document called the Portland Plan Food System. This document aims to stimulate a public debate on food as a planning issue to ‘allow fuller consideration of policy choices and investment priorities’.

Along with the Portland Plan Food System, Multnomah County (the county where Portland is located) has also developed a plan. The Multnomah plan identifies the key issues and aims to ‘reinforce local food by increasing viable local options in the food system; improve healthy eating by making healthy choices an easier option for all; promote social equity by building systemic justice, health, and food security; increase the economic vitality by promoting a thriving local economy’.
Moreover, Portland’s interest in the topic of food is also shown in the Climate Action Plan (CAP) (2015), developed by the city and the county, which contains a chapter on ‘Food and Agriculture’ and states that ‘the total carbon footprint of the food system may be larger than passenger transportation’. The city and the county have developed the CAP together and they have paid good attention to urban–rural linkages.

The main aim of this chapter is to identify how food-related issues were incorporated into the territorial planning of Portland City. A number of official documents were read, statistical data were collected (by census) and 36 semi-structured interviews with professionals and stakeholders were carried out during fieldwork in August–September 2014.

4.1. Portland: a brief introduction

Portland is the largest city in the US state of Oregon and the seat of Multnomah County. The city covers 376 km² and had an estimated population of 619 360 in 2014. According to the 2014 census, 2 348 247 people lived in the larger Portland metropolitan statistical area (MSA), which spans portions of the states of Oregon and Washington (Portland–Vancouver–Hillsboro, OR–WA MSA). The MSA includes Clackamas, Columbia, Multnomah, Washington and Yamhill Counties in Oregon, and Clark and Skamania Counties in Washington.

From an economic and industrial perspective, Portland is focusing its resources on enhancing the competitiveness of businesses in four areas of industry: clean tech and sustainable industries (CTSI), active-wear, software, and advanced manufacturing. At the same time, it is working towards developing a sustainable economy and neighbourhood vitality.

Three elements currently make the city of Portland so appealing. The first is the low price of real estate, which helps to keep down property tax. The second is the city’s interest in environmental policies. Portland is the leading United States city in terms of green buildings and the use of bicycles for transportation. The third is the low cost of living. Portland’s cost of living has an index value of 15.2 compared with 32.3 in Los Angeles and 66.5 in San Francisco. Portland has maintained a relatively low cost of living in spite of the focus on sustainability issues. These elements mean that Portland has advantages over other West Coast American cities.
4.2. The regional context

Portland is located 110 km east of the Pacific Ocean at the northern end of Oregon’s most populated region, the Willamette Valley. Downtown Portland straddles the banks of the Willamette River, which flows north through the centre of the city, thereby creating the east and west neighbourhoods of the city. Less than 16 km from downtown the Willamette River flows into the Columbia River, the fourth-largest river in the United States and part of the boundary between Oregon and Washington.

The climate is characterised by warm, dry summers and cool, rainy winters. The precipitation pattern involves little rainfall during the summer months and more than half of annual precipitation falls between November and February. The presence of volcanoes, the mild climate and the rain in winter make the land very fertile and suitable for various types of cultivation.

The Willamette Valley is characterised by extensive farming. Some of the main products are apples and other fruits, livestock, dairy, potatoes and mint. Oregon is also one of the four major regions in the world for the cultivation of hazelnuts: it grows 95 per cent of total US production. There were approximately 38 600 active farms in 2008, and this number has changed little in recent years. The number of hectares dedicated to cultivation also is stable, about 6.6 million, accounting for 26.7 per cent of the total area of Oregon. The agricultural sector provides work to over 454 000 people in Oregon, but the unemployment rate is higher than in the non-agricultural sector, standing at 12.3 per cent. The average income per capita of those employed in the agricultural sector was US$30 237 in 2008, while the average overall employment earnings stood at US$34 704. Also significant are the data on organic farming (organic agriculture). The total number of hectares devoted to such crops nearly doubled in three years, from 23 323 in 2006 to 52 870 at the end of 2008.

4.3. Controlling urban sprawl and protecting agricultural land: the spatial planning system in Portland

Portland is recognised in literature on spatial planning and urban and regional studies both for having developed an excellent territorial planning system (Seltzer and Carbonell 2011) and for having taken very seriously the laws of Oregon regarding the ‘urban growth boundary’. Such laws define the limits of city development and clearly set the boundaries between urban and rural areas.
Portland’s strong land use planning controls are, in part, derived from land conservation policies adopted in 1973, when the Oregon Governor (Tom McCall) ‘convinced the Oregon Legislature to adopt the nation’s first set of state-wide land use planning laws’.12 With a coalition of farmers and environmentalists, McCall persuaded the Legislature that the ‘state’s natural beauty and easy access to nature would be lost in a rising tide of urban sprawl’.13 In this legislation, urban sprawl was seen as an enemy of the environment, and therefore as a process to be controlled. The law also created the Land Conservation and Development Commission and the Department of Land Conservation and Development.

In 1978, an agency named ‘Metro’ (see Box 4.1) was established to carry out the mandate of the state law in the Portland metropolitan area, which encompasses three Oregon counties: Clackamas, Multnomah and Washington, including the City of Portland. Part of its responsibility was to regulate the existing and future borders of the City of Portland, including the extent of the transport system. To do this the agency established

Box 4.1. Definition of Metro

‘Metro is a public agency that works with communities, businesses and residents in the Portland metropolitan area … Metro serves more than 1.5 million people in Clackamas, Multnomah, and Washington counties. The agency’s boundary encompasses Portland, Oregon and 24 other cities – from the Columbia River in the north to the bend of the Willamette River near Wilsonville, and from the foothills of the Coast Range near Forest Grove to the banks of the Sandy River at Troutdale … The Metro Council consists of a president, elected region-wide, and six councillors who are elected by district every four years in nonpartisan races. The Metro Auditor, elected region-wide, is responsible for oversight of Metro’s annual financial statements and for conducting performance audits. The council appoints a chief operating officer to carry out council policies and manage Metro operations. The chief operating officer oversees a diverse workforce of more than 1,600 employees including park rangers, economists, teachers, scientists, designers, planners, animal keepers, stagehands and cartographers. Hundreds of volunteers lend a hand at Metro’s parks, cemeteries, natural areas, offices and visitor venue … As the only directly-elected regional government in the United States, Metro has helped shape the political, economic, social and built landscape of the Portland metropolitan area since 1979. Working with communities, businesses and leaders across 25 cities and 3 counties, Metro addresses issues related to land use, transportation, garbage and recycling, parks and nature, economic development and cultural amenities.’14
the Urban Growth Boundary (UGB) to define the outer edges of the urbanised area. The state law requires Metro to assess, on a six-yearly basis, the need to expand the boundary to accommodate the next 20 years of anticipated housing and job growth. ‘Since 1979, the Metro Council has expanded it by around 13 000 hectares. In November 2015, the Metro Council unanimously decided for the first time not to expand the growth boundary’ (Metro 2015).

There has been much debate concerning the effects of the UGB in the Portland Metro Region and whether it has actually stopped urban sprawl and preserved farmlands (Jun 2004). Several studies have demonstrated contradictory findings about the effects of UGBs on urban development. For example, some argue that Portland’s UGB has helped to curb urban sprawl (Kline and Alig 1999), whereas others claim that Portland’s processes of suburbanisation are no more preferable than those of other metropolitan areas (Cox 2001).

In any case, the containment of sprawl is extremely relevant to the production of local food, since it helps to preserve rural areas and contributes to the densification of sustainable urban growth. In addition to defining the UGB, new policies were introduced regarding sustainable mobility, environment safeguarding, local community empowerment and the food system.

4.4. Food and spatial planning tools in the City of Portland

The analysis of food planning in Portland needs to be investigated on at least two levels: the first concerns how food gets into the planning tools at an urban, metropolitan and county scale. The second level concerns the urban food policies themselves. Such policies in the City of Portland depend on the Food Sustainable Program and tackle issues relating to the evaluation of local production and access to local food.

With respect to how food is embedded in territorial planning tools, it is interesting to focus attention on four territorial planning instruments: namely, the Portland Plan Food System report, which is preparatory for the Portland Comprehensive Plan, Multnomah Food Action Plan, the CAP and the Portland Peak Oil Task Force final report.

The Portland Plan Food System report was produced by the City of Portland. It aims to inform the Portland Plan process. It includes a summary of what is currently known about Portland’s food system, a review of how other municipalities are approaching food systems and other ideas on the topic of food policy. The main aim of this report is to provide
background research to support the Portland Plan process and the policy choices made. The maps elaborated in the report concern the location of community gardens, restaurants, grocery stores. Figure 4.1 shows an example of such a map.\textsuperscript{15}

The Multnomah Food Action Plan is a strategy that should last 15 years. Such a strategy or vision defines clear goals and collaborative actions that should produce some good results. The main aim is to achieve a healthy local food system. In order to reach such goals the plan underlines the importance of accelerating education, empowerment, planning integration, and investment in the food system. In other words, it affirms the need to nurture a culture that values and is dedicated to sustainable food system outcomes. The need to work on the culture is particularly evident when one seeks to change habits in the consumption of local food or low-carbon food; also evident is the need to improve food access. It is important to clarify that it is fundamental to modify the planning culture so that it places more importance on access in different parts of the city and the county (see Figure 4.2).\textsuperscript{16}

Figure 4.1  Grocery store location in the city of Portland. (Source: Portland Plan Food System. http://www.portlandonline.com/portlandplan/index.cfm?a=346105&c=51427)
The CAP was produced by the City of Portland and Multnomah County. In 1993, Portland was the first city in the United States to create a local action plan for cutting carbon emissions. Since then, the City of Portland and Multnomah County have collaborated to produce updated climate plans that help guide the design and implementation of city and county efforts to reduce carbon emissions. Since 1990, total local carbon emissions have declined by 14 per cent while 75 000 more jobs have been added to the economy and the population has grown by 31 per cent.

In the CAP, the food system is presented as one of the areas in which to invest in order to tackle issues relating to the energy crisis. The main objective is to reduce the consumption of carbon-intensive foods and support a community-based food system. With this in mind, two main aims are defined. The first concerns the reduction of high-carbon food: lifecycle analysis has shown that beef, cheese and pork generate the most carbon emissions per ounce. Residents of Multnomah County can reduce the impact of food choices on climate change – and improve personal,
environmental and economic health – by choosing low-carbon foods (vegetables, fruits, legumes, cereals).

The second aim concerns local food or the community-based food system. Although eating locally produced food has a smaller impact than choosing low-carbon food, the consumption of local food can reduce transportation emissions, strengthen the local economy, help preserve the region’s agricultural land base and support a community-based food system that can reshape people’s relationship with food.\textsuperscript{17}

The last document to be taken into consideration is the Portland Peak Oil Task Force’s final report. This report declares ‘a constrained energy future calls for a less energy-intensive food supply, with crops grown locally, processed less, processed locally and shipped over shorter distances’.\textsuperscript{18} In spatial planning the new low-carbon prospect calls for the reconfiguration of energy and matter flows, especially between urban and rural domains. In this framework, research on food systems has increased considerably in the urban and spatial planning literature. It is becoming clear that planners should begin to take into account questions about food self-reliance, farmland preservation and food distribution. The plans mentioned above, along with the law to control urban sprawl, aim to safeguard rural areas and as consequence to help better manage the activation of local food production.

\subsection*{4.5. Food policies and practices}

Twelve years ago the City of Portland Bureau of Planning and Sustainability started a programme named the Sustainable Food Program. Interest in the development of the Sustainable Food Program is closely interconnected with the fertility of the Willamette Valley. This programme promotes several practices to improve knowledge of food initiatives. One was the development of a Sustainable Food Resource Database. This database contains all the information on initiatives and organisations linked to the production and consumption of sustainable food. Another practice was the development of the Urban Food Zoning code to classify everything about the production and distribution of local food (from community gardens to garden markets and farmers’ markets). The classification aims, on a basic level, to identify the resources available in the territory, but more precisely to provide in-depth information on the production, consumption and distribution of food, which may in turn help to shape future interventions. The overall objective of these practices was to remove barriers to the production of local food and, especially, to define policies to improve local production.\textsuperscript{19}
Another interesting initiative was the Portland FoodHub. The Portland FoodHub lists 500 restaurants, 230 schools and 1400 farmers, ranchers, fishermen and speciality producers. The FoodHub Ecotrust in Portland has received approximately US$250 000 to build an online platform that brings together producers, consumers and distributors of food. The objective of the FoodHub is to create a connection between producers, who in most cases reside in rural areas, and farmers’ markets in the city. It seeks to overcome the urban–rural divide by using new technology.

4.6. Some practices in the fields of food accessibility and local food production

There are many practices connected to food that have impacts on the spatial planning system. Some of them affect the accessibility, affordability and availability of food; others relate to local food production such as urban agriculture, community gardens and the ecoroof.

Affordability ‘indicates the product of a seller’s stated prices and the consumer’s purchasing power’ (Armstrong et al. 2009, 7). An example of an action implemented to deliver affordability is Food Stamps. Food Stamps provide food-purchasing assistance to low- and no-income people in the US. It is a federal aid programme, today known as the Supplemental Nutrition Assistance Program (SNAP). SNAP helps low-income households – who do not need to be destitute to qualify for assistance – to purchase food to meet their nutritional needs (see McClintock 2015; McClintock et al. 2016).

Besides issues of affordability, problems of accessibility and availability are also important. Accessibility refers to the consumer’s ability to physically travel to a food source and return with his or her purchases. Its primary determinants include geographic distance, transportation choices, and variations of urban form such as terrain and the quality of transportation infrastructure (Armstrong et al. 2009, 7). Availability, on the other hand, indicates the presence of an adequate variety of food types to meet the consumer’s dietary requirements and personal preferences (Armstrong et al. 2009, 7).

Food carts offer a solution to problems of accessibility and availability. Food carts are mobile food units. They can be most efficient when coupled with food cart pods (Figure 4.3), ‘which are surface lots with more than a few carts’. Use of food carts can also develop the regional food economy. Multnomah County is working to establish more local food
hubs (e.g. farmers’ markets, food cart pods and an all-year-round major public market) and to increase demand for vendors of regional food. In Portland, over 500 food carts are available at any given time.\(^2\) Another interesting issue relating to the availability, accessibility and affordability of food is the reduction of food deserts. A food desert is an area with little or no physical or economical access to foods needed to maintain a healthy diet (but often served by plenty of fast food restaurants).

Recently, a debate about why food carts are so common in Portland has taken place and many reasons are identified. First, the street ‘vendors are not burdened by excessive bureaucracy or adherence to rules and formalities and business start-up costs are much lower compared to those in other U.S. cities’ (Rogers and Roy 2010, 4). Second, food carts contribute to the development of the regional food economy and to new employment (above all for immigrants with low levels of education). Third, food carts make different kinds of food easily accessible and available at competitive prices. Moreover, the food sold in food carts is quality guaranteed because of the City of Portland regulations requiring the carts to be licensed and to pass a health inspection. Fourth, food carts can help to make a more vibrant neighbourhood. Research by a group of urban planning students from Portland State University (PSU) studied food carts and their role in enlivening public space (Kapell et al. 2008). A conclusion of this study was that ‘food carts [provide] significant community benefits to neighbourhood livability by fostering social interactions, walkability, and by providing interim uses for vacant parcels’ (Kapell et al. 2008, 4). This last point indicates a creative use of empty space, something planners tend to criticise, preferring buildings. Food carts may be considered an interim measure in their creative use of empty space, animating such spaces.

Figure 4.3  Food cart in Portland. (Source: Nunzia Borrelli)
Notwithstanding everything considered above, some critical observations about food carts have been made. The definition of food carts is questioned, even whether in some cases they are really mobile: in many cases ‘vehicles sitting in surface parking are always there and only pay lip service to the idea of mobility’ (Rogers and Roy 2010). This observation is made primarily by restaurants that consider food carts to be ‘unfair competitors’. In particular, local restaurants highlight that food carts are able to keep prices lower because they have less expenses while still enjoying services (electricity, water, etc.) in ways quite comparable to restaurants. Another critical point concerns their real capacity to contribute to the regional economy. Information collected by interviews in Portland demonstrated that, although Multnomah County is working to establish more local food hubs and to increase demand for vendors of regional food, the economy stimulated by these activities is not great. Many of those interviewed said that the presence of food carts was linked more to the need to use the large number of empty spaces in Portland than to making a real impact on the local economy. Also questioned is the capability of food carts to make neighbourhoods more vibrant. Some people interviewed thought Portland has already demonstrated it can activate public space and neighbourhoods, and so food carts don’t make any difference.

Finally, the promotion of local farmers’ markets is another strategy for making healthy, locally produced food more accessible. The intention in promoting them is also to promote the development of the local economy through food production, which is currently still quite weak. In Portland Metro Region there are 50 farmers’ markets, seven of which are located in the City of Portland. Moreover, there are four programmes for collecting surplus food: the Portland Fruit Tree Project; Urban Edibles; Urban Gleaners; and St Vincent de Paul (City of Portland 2009, 40).

The topic of urban agriculture is quite different, but it is also very interesting. Urban agriculture is the production of local food on eco-roofs and in community gardens.

A community garden is a place where a number of people, often neighbours, collectively garden a plot of land together. Community gardens can be a single large plot to which every member contributes and then all share in the harvest, or they can be split into multiple plots used by individuals and families. Activities relating to Portland’s community gardens are managed by the City of Portland Community Garden Program, which is supported by a number of associations, the most notable being the Friends of Portland Community Gardens. According to the coordinator of the Community Garden Program, there are 50 urban...
gardens in Portland, serving about 3000 people. There are other gardens that other organisations operate, but there is no official number of all the community gardens in Portland.

The concept of the ecoroof takes the green roof idea a step further, adding the benefit of providing food as well as potentially creating opportunities for community building. Moreover, ecoroofs can decrease stormwater runoff, save energy and reduce pollution and erosion. In Portland, Ecoroof projects are managed by the City of Portland Environmental Services. There are currently 596 ecoroofs in Portland: 447 are built ecoroofs (extensive greenroofs and rooftop agriculture); 149 are built rooftop gardens (intensive greenroofs) (see Figure 4.4). The office in charge of ecoroof management is Environmental Services of Portland City, which provided these data.

4.7. Conclusions

Portland is a city at the forefront of the development and definition of food policy and food planning. The attention the City of Portland gives to these issues is clearly influenced by the fertility of the Willamette Valley, which calls for the development and implementation of practices that help protect the land, and by the regional growth planning system that aims to control urban sprawl and helps to encourage the development of food policy and food planning.
Portland started to deal with food policies and food planning in 2005, when the food sustainability programme was launched and a new office was opened in the Bureau of Planning and Sustainability. The main aim of the programme was to embed food in all territorial planning tools; in order to fulfil this aim some problems, such as the management of community gardens, began to be regulated at urban level, while other issues, such as ones relating to the management of short supply chains, were managed at metropolitan level. Alongside the development of the food sustainability programme, interest in food policy has been growing; strategies to improve the use of local food products were developed and the quality of local food production was promoted. It is worth underlining that Portland has one of the highest numbers of slow food units among cities in the US.

This case study allows us to draw some conclusions about the challenges and opportunities of connecting food systems and urban planning. There are at least three challenges/opportunities to be met. They relate to efforts to implement a spatial planning model that aims to be cross-sectoral/holistic, multi-level and place based.

Practitioners and academics involved in spatial planning have recognised for years the need to develop inter-sectoral and holistic strategies. Food planning needs, on one hand, to be considered in relation to the practicalities of local resources and climate, and, on the other hand, to recognise and react to other sectors. Food interacts, for instance, with health policies and transport policies. Because of these peculiarities, food planning lends itself to the implementation of inter-sectoral and holistic spatial planning models.

The second challenge/opportunity of food planning concerns efforts to problematise the relationships between the urban and rural environments and to adopt a multi-level approach. The diffusion of concepts such as city region, metropolitan city or metropolitan area highlights the fact that urban land use planning must give more importance to urban–rural relationships. In a territorial policy that is highly focused on the metropolitan scale and on urban–rural relationships, the added value provided by food planning becomes increasingly evident. Food planning can tackle some of the main problems of metropolitan planning: the regeneration of rural areas, the development of urban agriculture, and sustainable strategies for cities.

The last challenge/opportunity concerns the effort to make food planning place based, i.e. it tries to start from knowledge of place and from local actors’ evaluation of local resources. Such an approach is likely to create problems, including the ‘local trap’ (Born and Purcell...
Local food is not always good and healthy. Food planning therefore requires us to recognise that the development of local food resources should not be uncritically celebrated.

Notes

5. On these aspects see also http://billmoyers.com/content/12-cities-leading-the-way-in-sustainability/
7. Burnside Street crosses the city from east to west, forming the five quadrants in which the city is divided. In the south of the city is the downtown area. The oldest parts, Chinatown, Old Town, 23rd Avenue and the Pearl District, are located in northwest.
8. US Department of Agriculture (USDA).
9. USDA.
10. USDA.
11. USDA.
12. On these aspects see http://pdxscholar.library.pdx.edu/oscdl_ugb/#, where you can find information about UBG.
13. On these aspects see also http://www.oregonmetro.gov/urban-growth-boundary, where you can find the UBG map.
16. For other information see Multnomah County (2010).
17. For other information on CAP see https://www.portlandoregon.gov/bps/49989
18. For other information about the Portland Peak Oil Task Force see the final report: http://www.portlandoregon.gov/bps/article/126582
19. For more information about the Sustainable Food Program see https://www.portlandoregon.gov/bps/41480
20. For more information about the food hub see http://www.ecotrust.org/
21. Food banks are a natural partner in SNAP outreach because of their direct connection to food-insecure families in the community. The food bank does not provide SNAP benefits; however, the food bank does help food pantry participants sign up for SNAP through outreach programmes. By connecting eligible families with SNAP, food banks help provide food-insecure households with a consistent and stable means to purchase their own food.
23. For more information see http://www.foodcartsportland.com/
27. In 2002 the Portland/Multnomah Food Policy Council was launched to serve as a citizen-based advisory board for the City of Portland and Multnomah County. It represented a broad spectrum of citizens and addressed policy issues in the regional food system. https://www.portlandoregon.gov/bps/42290
References


