TASCABILI DELL'AMBIENTE

EStà – Economia e Sostenibilità

FOOD AND THE CITIES

Food Policies for Sustainable Cities

by Andrea Calori and Andrea Magarini

Edizioni Ambiente

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INTRODUCTION

By Giuliano Pisapia, Mayor of Milan

Today, over half the world's population lives in a city. In 2050, forecasts estimate this figure will include 70% of the Earth's inhabitants. Starting now, the great metropolises of the future face critical challenges: How to encourage sustainable, equitable development? How to guarantee decent homes and efficient public services? But above all, how to ensure everyone has sufficient access to food without despoiling our planet's finite resources? The answers can only come from metropolitan areas themselves. In a globalized world of increasingly networked mega-cities, great revolutions begin at the local level. Urban governments can bring together and guide the other actors in play, bringing together engaged citizens and nonprofits, businesses, and other institutions. Cities must take the lead to enact concrete policy, particularly with regard to food systems, given the fundamental role that food plays in the life of a municipality, as this book demonstrates.

With these considerations in mind, in this year of Expo 2015 dedicated to the theme "Feeding the Planet, Energy for Life," the City of Milan has challenged other major cities around the world to join us in the Urban Food Policy Pact, an international protocol to be signed in October 2015 as one of the greatest legacies of the Universal Exposition.

For months, Milan has worked with dozens of other cities from the global North and South, together with experts, foundations, and international organizations, to draft a document including policy recommendations and concrete commitments. The goal is to create a network of smart cities that pledge to work to transform their approach to food issues through the exchange of best practices, ideas, suggestions, and solutions.

For its part, Milan, in conjunction with the Fondazione Cariplo, has begun a process to compose its own new Food Policy, a strategic document that will guide the city on food-related issues for the next several years. This project has been refined though a participatory process that has collected the opinions and ideas of NGOs, businesses, start-ups, experts, and a great many residents on how to tackle issues such as the fight to minimize waste, increase accessibility to food, and improve food education. Yet another ideal, but also concrete, legacy of Expo 2015.

PREFACE
By Giuseppe Guzzetti, President of the Fondazione Cariplo

For 25 years, Fondazione Cariplo has pursued philanthropic ventures with great passion. Today, it concentrates its efforts on initiatives that address issues affecting youth, the community, and individual wellness.

Food cuts across all these themes. In this volume, you will find the story of just one part of the research that has been conducted as part of a much larger project by the Fondazione Cariplo and the City of Milan to create a Milan Food Policy. The basic idea is that we can feed people not just in the material sense (wherever necessary, with poverty increasingly widespread, both in Italy and throughout the world), but rather nourish them with care for the growth of the whole person, and thus with a particular focus on wellness, on their well being. This means thinking of others – by reducing waste, for example. It also means thinking of ourselves, by paying attention to what we eat.

Philanthropic organizations, and the Fondazione Cariplo in particular, are committed to supporting initiatives and projects that address these themes. A recent study presented in Milan by the Global Alliance for Food (which includes 20 foundations from around the world, including Cariplo) shows that every year, philanthropic organizations provide $655 million worldwide for projects in this sector. This is a commitment that the scientific community cannot do without.

But philanthropy today makes a difference not simply by distributing economic resources, but also and especially by fostering innovation; the attention paid in recent months to food-related issues also provides an opportunity to demonstrate foundations' contributions to changing agro-food systems in the direction of greater sustainability, security, and equity.

Fondazione Cariplo is committed to support for scientific research as a driver of the innovation required to transform agro-food systems toward greater sustainability. Our commitment in this realm is significant, and also includes promoting collaboration with other philanthropic ventures nationally and internationally, through its various partnerships with the Fondation Agropolis, offering grants for research on the farming of rice and cereals.

In Italy, Fondazione Cariplo began the Progetto Ager in 2007, coordinating a partnership of 13 Italian foundations to support research in sectors that represent the best of Italian food and agriculture: from the farming of grains to the growing of fruit and vegetables, from viticulture to animal husbandry. Ager has allocated more than €25 million in resources to 16 projects that involve more than 46 universities and research institutes across the country. The second edition of the project was just launched in collaboration with another 9 Italian foundations, making available €7 million for research in 4 new areas: aquaculture, mountain agriculture, olives and oils, and dairy products. Ager 2 will further privilege themes of food security and environmental sustainability.

For all of us, philanthropy means supporting a project with passion. Helping it grow strong, until it can bear its fruits for the benefit of all. For when it comes to food and agriculture, picturing fruit ready for the harvest simply comes naturally...

1. FOOD: KEYSTONE OF CITIES' SUSTAINABILITY AND RESILIENCY

By Andrea Calori

PROLOGUE: CITIES AND AN URBANIZING WORLD

Since 2007, the world's urban population has numerically surpassed those who live in rural areas: a symbolic watershed that calls attention to processes of urbanization that, though assuming different forms and dynamics in different geographical regions, are accelerating with ever-increasing speed. But beyond this symbolic aspect, which in recent years has spurred renewed interest and discussion, these processes represent only the most recent phase of a much longer trend that characterizes all of modernity. In fact, the very idea of modernity itself is "urban," because it is based upon a culture that tends to transform "non urban" societies and modes of production in order to serve the needs of cities – or rather, to serve the needs of the urbanized world.

World urbanization is founded upon an expansion of urban systems that is as much cultural and symbolic as it is physical, and that pervades every aspect of society and the economy as well as their relationship with the environment. The current situation weighs heavily upon the many delicate balances underlying the

30 MEGACITIES IN THE WORLD
(> **10** million inhabitants)

20 Buenos Aires, Argentina
population 14.500.000

7 Mexico City, Mexico
population 23.800.000

14 Los Angeles, United States of America
population 17.200.000

13 Beijing, China
population 19.300.000

30 Tianjin, China
population 10.600.000

28 Moscow, Russia
population 11.510.000

1 Tokyo, Japan
population 33.800.000

15 Osaka, Japan
population 16.800.000

3 Shanghai, China
population 28.900.000

2 Guangzhou, China
population 31.700.000

9 Manila, Philippines
population 22.200.000

25 Rio de Janeiro, Brazil
population 12.900.000

10 New York, USA
population 21.600.000

11 Sao Paolo, Brazil
population 21.600.000

19 London, United Kingdom
population 15.500.000

4 Jakarta, Indonesia
population 26.400.000

21 Bangkok, Thailand
population 14.500.000

27 Shenzhen, China
population 11.700.000

5 Seoul, South Corea
population 25.800.000

16 Dhaka, Bangladesh
population 16.300.000

18 Kolkata, India
population 16.000.000

12 Mumbai, India
population 21.100.000

6 Dehli, India
population 24.000.000

26 Lahore, Packistan
population 12.500.000

8 Karachi, Packistan
population 23.500.000

24 Tehran, Iran
population 13.200.000

17 Cairo, Egypt
population 16.100.000

22 Istambul, Turkey
population 14.160.000

29 Paris, France
population 10.700.000

23 Lagos, Nigeria
population 13.200.000

City	GDP
Moscow	270
Beijing	277
São Paulo	284
Mexico City	286
Boston	289
San Francisco	303
Philadelphia	322
Dallas	362
Randstand	366
Milan	**367**
Houston	375
Washington	380
Osaka	398
Reno	483
Chicago	511
Los Angeles	700
Paris	736
London	925
New York	1,210
Tokyo	1,460

Comparison of the GDP (billion $) of cities and nations

Distribution of GDP (billion $) within cities

62%

38%

11%

13%

18%

19%

| 23 megacities (+ 10 mln) | 45 large cities (5-10 mln) | 143 midsize (2-5 mln) | 389 small (200,000-2 mln) | Other cities and rural areas |
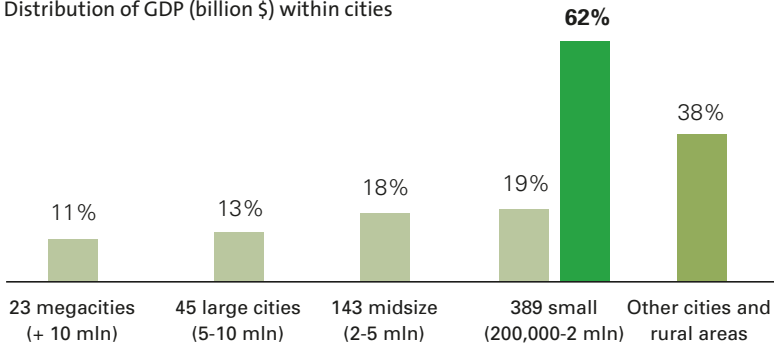
Tokyo 1,460 billion $
Canada 1,573 billion $

Washington 380 billion $
South Africa 384 billion $

London 925 billion $
Indonesia 878 billion$

Milan 367 billion $
Colombia 368 billion $

development model that characterizes both the West and the nations most greatly influenced by it. The fate of nations rests in large measure on our ability to govern the social, economic, and ecosystemic equilibria of urban areas.

A city is an ecosystem that, by its very nature, depends on other areas to acquire what it needs (energy, water, soil, food, etc.) and to get rid of what it has not fully metabolized (waste, scrap, emissions, etc.). The more that a city's dependence on external resources grows, the more difficult it is to manage this balance; and this dynamic only grows more complex as the physical distance between these resources and the city itself grows wider, or as the urban area itself becomes more vast and complex.

In its most recent incarnation, world urbanization has become intertwined with the paradigms of globalization, giving rise to forms of economic organization on a planetary scale. As many have noted, the novelty of the last few decades lies not in the fact that goods are being moved from one continent to another – something that has always taken place, since antiquity – but in the trend toward a single, uniform organization of the economic system, and the primary importance assumed by finance capital in terms of production and the real economy.

In an apparent paradox, the dematerialization of the economy associated with the triumph of the financial over the productive has been accompanied by a hypertrophy of the structures necessary for the perpetuation and growth of this way of thinking about the economy and development. In an urbanizing world, vast areas of the planet are dedicated to the production of goods that are consumed exclusively elsewhere – typically in urban areas, where a greater proportion of global wealth is concentrated. In the same way, a significant amount of capital, energy, and space is spent on logistics, infrastructure, and everything else re-

quired to guarantee the smooth functioning of this system, based on the rapid exchange of goods on a global scale.

This complex form of organization works to ensure the input and output of materials and energy, especially in those parts of the planet where the majority of its population is gathered: its most densely populated regions, tremendous metropolitan areas that hold 10 or 20 million people, including several huge and rapidly growing Chinese agglomerations that have surpassed 30 million inhabitants. Shanghai has more than 20 million residents, while Chongqing, also in China, is a conurbation that will soon reach 40 million.

Settlements like these are living organisms that cannot entirely be reduced to the traditional definition of the term city, and they certainly require different instruments and forms of study compared to what might suffice for Milan, Paris, or San Francisco, for example. Nevertheless, they lay at one extreme of an ongoing trend toward urban concentration that has spread around the world, and that clearly – and dramatically, in many cases – raises difficult question about balancing resources as well as the future of the city. In fact, settlements of this type demonstrate in the most extreme way imaginable the dependence of urbanized areas on resources that frequently reside very, very far away from them, spread out all around the world.

This is, then, a question of a general model of development, and not just one of urban planning or governance.

World urbanization also shapes the imbalances between global wealth production as measured in GDP and the many facets of well-being, sustainability, and the resilience of social and environmental systems against external shocks.

According to the United Nations, cities generate more than 80% of global GDP; the great urban areas clustered in the most de-

veloped areas of the world truly are economic giants. The economy of Tokyo is comparable to that of Canada, London to Indonesia, Milan to Colombia, Washington DC to South Africa. Faced with these undeniable facts, in recent years there have been multiple studies on the resiliency of large urban areas in connection with the increase in social tensions produced by mass migrations, the imbalance between social conditions and economic trends, or natural disasters. The most interesting thing about these studies is that the ever increasing growth of the great urban agglomerations brings with it many unknowns in terms of our ability to govern or shape the dynamics associated with this kind of growth. In recent decades, in fact, there have been an increasing number of critical situations generated by a combination of social, economic, and environmental factors that, while not completely and directly attributable to individual cities, nevertheless demonstrate the fragility of urban systems and everything connected to them.

Among the many different cases involving this contrast between the wealth and fragility of cities associated with the complex relationship of global development models and specific local contexts, we might cite the 2010 bread riots that unleashed the so-called Arab Spring in the cities of Mediterranean Africa. Or the waves of migration between city and country generated by the "tortilla crisis" that struck Mexico in 2007. Even more shocking is the decline of a city like Detroit, which for a whole century stood as the capital and global symbol of a car culture that conquered the world, only to implode following paradigm shifts in production and organization within the international automobile industry. Finally, the growing number and intensity of natural disasters that have struck an increasing number of urban areas in the North and the global South – from Hurricane

Katrina to Fukushima, Haiti to the flooding throughout South Asia in recent years – has placed heightened focus on the issue of urban systems' fragility or resiliency in the face of external environmental shocks.

Urban areas, then, are both the primary drivers of wealth and increasingly critical sites in debates over the sustainability of the dominant development model in the urbanized and globalized world, confronted with a series of dynamics that are changing at ever-increasing speed. For this reason, many of the equilibria upon which this development model currently rests, and the fate of nations, depend in large measure on our ability to managed social, economic, and ecosystemic balances in which urban areas constitute a critical element.

The perspective offered here, then, is not simply how to imagine cities that can be more sustainable in and of themselves, but how to think about urban settlements and their metabolism to construct systemic responses to world urbanization.

FOOD AS KEYSTONE TO THE SUSTAINABILITY OF DEVELOPMENT

From this perspective, agro-food cycles represent a crucial element in the sustainability of cities and the urbanizing world. Agro-food cycles include a large number of variables that run from daily consumption and individual lifestyles to the long-term, structural elements of socio-economic organization: production, processing, transportation, sales, recycling or re-use of excesses, and the disposal of waste. Interpreting cities "from the perspective of food" in this broader sense allows us to examine in depth all the social, economic, and environmental fac-

tors in the urban metabolism: for this reason, thinking about the relationship between food and the city means understanding the relationship between food and our model of development more generally.

Increasing urban concentration and the spread of habits associated with urban living means that the basic alimentary needs that develop within an ecosystem – like a city – are increasingly unsatisfied, particularly in terms of the availability of natural resources, and are thus dependent on an increasingly artificial and deterritorialized agro-industrial system that is energy inefficient and difficult to manage for all its complexity. As we know, food supply systems are often extremely complex, and kitchens are full of foods from around the world that depend on cultural practices, environmental factors, normative structures, and economic systems that are incredibly diverse.

In this view, to talk of food clearly does not mean simply looking at agriculture or rural production chains, but rather adopting an "urban gaze" on the world, in which the many different aspects of the urban development model are considered from the perspective of the relationship they have to food. In her book *Hungry Cities*, Carolyn Steel writes that "cities are what they eat," deploying this phrase to express a number of questions intimately connected with the right to food, to understand all the organizational and regulatory factors that make access to food possible: people, cultures, practices, institutions, politics, democracy, the economy and its relationship with the environment, resources, and ecosystemic cycles.

THE GLOBAL FOOD ECONOMY AND THE RESILIENCY
OF LOCAL URBAN ECOSYSTEMS

The issue of sustainable development with respect to food is usually framed in terms of the need to feed a growing population with a limited amount of land and resources. The need to balance resources and consumption is certainly real, but it cannot be resolved merely by increasing production, when global agricultural yields are already significantly overabundant in comparison to basic nutritional needs. Rather, we must keep in mind that more than one third of world food production is lost between the areas where it is produced and the places it is consumed; this loss, distributed to varying degrees across the different phases of the food system and different regions of the planet, is high even in light of the complexity of the globalized food industry.

In the poorest regions of the world, this loss includes food that, once produced, is thrown away due to a lack of adequate mechanisms for preservation, processing, and transportation. In addition to these losses, which are primarily linked to technological shortcomings, there are many other phenomena primarily associated with overproduction, either directly or indirectly in connection with the wealthiest nations. In fact, enormous quantities of agricultural products are produced in surplus to serve the needs of an economic-financial system that is increasingly devoid of any criteria for sustainability, and less and less oriented toward cultivation designed to actually feed people. Enormous quantities of certain agricultural products are stored in warehouses for use over time, in order to fuel speculation on prices in the financial markets, and an ever-increasing amount of land is being converted away from food production in favor of

biofuels, creating significant alterations in social structures and large-scale environmental impacts, and exacerbating price volatility with respect to both food and land.

A major change of perspective toward the entire system could open new and radically different horizons compared with the emphasis on intensifying production and the excessive influence of financial considerations on the real economy. Once again, a crucial challenge for future decades is linked to our ability to comprehend and rethink a model of development that is socially, economically, and environmentally sustainable, that acts upon the causes of these imbalances and does not merely serve as a dyke against their effects.

This sustainable perspective is of necessity bound territorially, regardless of whether its actions against these root causes are oriented in terms of a *strong* sustainability or a transitory, *weak* sustainability, to borrow the well-known distinction suggested by Herman Daly. Sustainability has a more general and global dimension as a worldview, but it must be local and specific in how it marries approach and action. In a fully sustainable perspective, the relationship between production and consumption is closely connected with a balancing among regions, in which every place constructs its own specific contribution to sustainability, making a difference both locally and in concert with other places.

This approach encourages the interpretation of imbalances within urban ecosystems as a structural trait of these areas, one that makes them more heavily dependent on complex systems that span ever greater distances geographically and in terms of decision-making, where it becomes increasingly difficult to manage sustainability.

Cities possess the greatest concentration of resource consump-

tion, while they tend to dissipate awareness of their relationship with all the other components of the ecosystem. The fact that the majority of citizens ignore the provenance and production methods behind their food, and in particular the dimensions, causes, and fate of surpluses and waste from the agro-food cycle, is one effect of cultural processes that have become entrenched in modernity and that have created systems that seem too complex and distant to be modified or even managed.

THE GREEN REVOLUTION: THE AGRICULTURAL SIDE OF WORLD URBANIZATION

The period of greatest acceleration in this process that detaches cities from agro-food systems and reduces cities to mere sites of consumption has coincided with the Green Revolution, which, from the mid-twentieth century on, has witnessed the widespread use of chemicals in agriculture on a massive scale throughout the world. The Green Revolution has, in fact, transformed the earth into a site for the production of commodities for agribusiness with the aim of maximizing extractive capacity, definitively sealing the bond between industry and agriculture, and integrating the latter into financial, industrial, and logistical systems of great complexity.

With the widespread industrialization of agriculture, the earth itself has been transformed into an object for consumption, ready to be discarded the moment it is no longer economically and financially competitive with its other potential uses – whether traditionally linked to urbanization (buildings, infrastructure, etc.) or the production of commodities (biofuels, extraction of raw materials, etc.). Or, worse still, ready to be treated like mer-

chandise, directly or indirectly tradable on the financial market, or subject to more or less blatant land grabbing.

The integration of agriculture in the industrial system that has occurred as part of modern development has also proceeded hand in hand with the opposite yet complementary process of the repression of the rural in modern culture. Our use of the word repression is deliberate, because the culture of modernity has progressively diminished the intrinsically multifunctional role of agricultural activities that, throughout thousands of historical and cultural evolutions, has always guaranteed the maintenance and reproduction of a heritage that cannot be completely monetized: the ecosystem, first and foremost, as well as forms of sociability that cannot be accommodated by social organization in an urbanizing world.

This repression of the rural is deeply rooted in the techniques adopted to confront the problems of urban planning in Western culture. Until the last few years, in fact, the majority of city plans largely ignored the fate of agricultural lands within their purview. Furthermore, in the field of urban planning these areas were considered "spaces not yet urbanized" – and not land specifically recognized for its rural characteristics. The discipline itself thus contributed to the piece by piece dismantling of the equilibrium between open and inhabited space, city and country.

This progressive repression has left its mark on the entire world, particularly in the wake of the Green Revolution, as can be seen in the equation of the rural with the agricultural, the agricultural with mere production, and the absorption of production within the broader industrial productive system.

As a result, despite the fact that the agricultural world still makes up a substantial part of many nations' GDP through the various

facets of agribusiness, the modern imaginary assigns agriculture and the land given over to it a marginal role, while the agricultural land on the urban periphery is subject to the negative effects of this misrepresentation of the characteristics, functions, and impact of rural worlds.

The accelerating deruralization of agro-food cycles has produced some of its worst effects precisely in those areas situated between city and country (city here understood to mean, in a general, simplified sense, the most densely inhabited settlements, and country less densely populated or open spaces).

Modernity sees the spaces between city and country as peripheries or outskirts not yet fully assimilated into the urban world: land that is no longer country, but not yet city. Land without an identity, a place to shunt activities that aid productivity or serve the city but exact a high environmental toll and, frequently, a preferred location for warehouses and other logistical operations that do not require a large labor force. It is precisely in these areas that the contraction of entire agricultural production chains takes place, first under the pressure of urbanization, and later the enormous expansion of infrastructure, logistical services, and environmentally harmful activities generated by the need to rapidly move huge quantities of merchandise great distances on a daily basis.

THE CONNECTION BETWEEN URBAN AND RURAL: A CRITICAL JUNCTURE FOR SUSTAINABILITY

In discussing the role played by the Green Revolution in the world urbanization, it's worth retracing a few steps from the last few decades that signaled a growing interest in the relationship

between urban and rural as a problem with development, and not just as a topic for urban planning or the treatment of various concrete manifestations of this relationship. Indeed, this relationship is important as a part of our narrative surrounding development, culturally and symbolically, even more than as a pertinent issue regarding the form and organization of the places in which we live.

Throughout the first half of the twentieth century, the rural was a clear part of the Western city, and could even be found in many newer neighborhoods that sprung up halfway through the previous century, where certain functions of the rural were incorporated into cities' urban expansion. Many urban centers have maintained their open fields, tended to their gardens and urban plots, including the many variants of the "garden city" or greenbelt; several of them have been developed by deliberately integrating buildings or public spaces with arable land for the production of food. The endurance of the rural within the urban can also be seen in the many forms of rural economy that peoples who have immigrated to cities from the countryside have tenaciously held onto for decades in the vast majority of Western cities. One example can be seen in the persistence of various forms of cultivation for home consumption in many industrial cities, where workers preserved the habit of tending and maintaining agricultural micro-economies with roots in family habits that preceded their immigration to the city. Even well into the 1980s, Yugoslavian manufacturers' business hours (6am – 2pm) were set so that workers could continue to work in urban gardens after their shift at the factory.

With the progress of world urbanization, techniques of analysis and management of cities have become more specialized in their approach, decidedly privileging the urban side of develop-

ment over the rural, and contributing in a significant way to the repression of the rural in cities. From urban sociology to urban planning, every field seems to dismiss these practices as social forms belonging to a past that needs to be overcome in favor of progress: a narrative that argues decisively for the symbolic and physical repression of the rural in the city.

In recent years, however, the study of the relationship between rural and urban has become the subject of great interest in different corners of the world, and from very different parties, whose deeper motives can be traced back to longer term debates over development.

Reevaluation of the role of the rural within the city began in the latter half of the 1950s, after decolonization had called into question the motives and phenomenology behind the concept of development, which was tightly connected with the primacy of the urban over the pastoral. It was in this context that the term "Third World" was coined to emphasize the contrast between countries in the process of decolonization and the two "developed" worlds under the aegis of the United States, on one side, and the Soviet Union, on the other: radically different spheres, in many respects, that nevertheless shared essentially the same urbanized view of the world in which progress, development, and unlimited growth were virtually synonymous.

In the vast realm of studies devoted to the "Third World," many focused on those cities in Asia, Africa, and South America that demonstrated distinct traits and variations that could not be traced back solely to models of growth in urban development. What these examples reveal is the great variety of combinations marrying urban and rural that developed in the so-called global South. Their unique dynamics have generated social aggregations, economies, and types of cities that are very different from

those that characterize Western metropolitan regions, and observing them has stimulated a wide-ranging debate on the proper techniques to study them, as well as the instruments and methods for planning and governing them.

But in the 1960s this diversity was largely perceived to be specific to the Third World, and did not engage in any significant way with the debates and politics surrounding Western cities. Indeed, in that era it was much more common to examine the South by deploying techniques and approaches developed and used in the North.

It would take almost twenty years for observation of these dynamics in the global South to lead to a real debate that forced the whole world to question the reasons for this diversity in patterns of global development. The 1970s and 1980s would witness debates over the limits of development, the work of Eugene Odum and Barry Commoner, Herman Daly's "ecological economics," and the famous Brundtland Report for the World Commission on Development and the Environment, which would furnish the intellectual and institutional foundation for the Conference on Environment and Development convened by the United Nations in Rio de Janeiro in 1992.

At the same time, parallel debates on Third World cities systematically investigated the role of the rural world in the evolution of cities and the general dynamics of development on a local and global scale. The merger of these debates over development, and the shape and fate of cities, led to a broad series of studies, guidelines, and reports discussed and ratified by international organizations that today constitute the primary analytical and normative standard on the subject of the meeting between urban and rural.

These debates often return to the subject of urban and periurban

agriculture, which is only one part of a larger conversation on the rural dimension of world urbanization, but which in some respects represents one of its most salient topics.

URBAN AGRICULTURE: GLOBAL IDEA, LOCAL EXAMPLES

In 1996 the United Nations' Development Programme estimated that around 800 million people were directly involved in activities connected with urban agriculture, of which 200 million were employed full-time in the production of food, with a particular concentration in cities throughout Asia. The same Programme showed that urban agriculture produced between 15-20% of food worldwide, radically disproving the common perception that associates urban agriculture with residual practices of limited economic and social importance. In fact, since the 1990s studies on urban and periurban agriculture have focused on a set of policies aimed at addressing the problem of governance in large cities that is beginning to impact policy agendas and the evolution of urban disciplines in a meaningful way.

The structural basis for this increasing interest is tied to the growth in the size of cities – which in the global South frequently takes place with scant or ineffective tools for planning – and the resulting need to confront problems of nutrition among the population and environmental balances (access to water, healthiness of the urban environment, etc.) in the face of agro-food systems that are inadequate to satisfy urban demand. In places where it is more difficult to feed cities because of their growth – particularly in cases where the municipal government is weak – we can see the growth of social and productive structures rep-

resenting pre-existing forms of urban agriculture, giving rise to new modes of organization, productive specialization, and unique cultures.

It is in these places, in particular, that there is a growing awareness of the importance of the intrinsic multifunctionality of urban and periurban agriculture, and of the need for public policy that is distinct from mainstream agricultural policy to account for the specificities and manifold nature of urban agriculture.

In 1980, the United States census revealed that metropolitan areas accounted for 30% of the monetary value of the nation's agricultural production. This would seem to represent a paradox, but only on the surface, because the great agricultural expanses of the Corn Belt in the Midwest commonly associated with North American agriculture are largely dedicated to the production of a few specific commodities with a lower value added than agricultural production from more highly urbanized areas. It is also interesting to note that, by 1990, this figure had risen to 40%.

If these figures refer in large part to the monetary value of urban and metropolitan agriculture, which is organized within substantial production chains, we should remember that there are also a number of examples from the dense urban areas of the West that demonstrate the existence of a quantitatively significant social as well as economic base that frequently escapes analyses generally focused on mainstream production. Just taking public land into account, in Berlin there are currently some 80,000 community gardeners, with a waiting list that includes an additional 16,000 names; in Moscow, 65% of families are now involved in some way in the production and processing of food for their own consumption or that of the community, up from 20% in 1970; while in Vancouver, one of the global cap-

itals of urban agriculture, 40% of residents practice some form of agriculture in the city.

These forms of urban economy are also socially organized on a regional and national scale, and in many places have made inroads into their respective public institutions: in Great Britain and France, for example, there are associations of urban growers that have been around for more than a century; by itself, the National Society of Allotment and Leisure Gardeners, founded in England in 1930, unites some 2,000 local associations of gardeners, joining the much wider world of community supported agriculture that in Great Britain alone can count thousands of groups and organizations spread out across the production chain.

FROM PRACTICE TO POLICY

The transition from the 1990s to the 2000s witnessed a quantitative and qualitative transformation in such examples and the way in which they are organized. Groups of the aforementioned type, which largely reflected traditional forms of association, have been replaced by social processes explicitly aimed at organizing local economic systems and, at the same time, representing manifold food-related needs in the public arena.

During this same period, social networks began to develop throughout Latin America linking urban agriculture to other dimensions of social and economic life. After decades of dictatorships, South American societies started experimenting with new social dynamics merging new forms of social aggregation, distinctly local economies, and needs for political representation. The many examples of participatory budgeting devised in Peru and popularized in Brazil – and, subsequently, through-

out the world – have been accompanied by the increasing abili-
ty of those developing forms of social and solidarity economies
to organize, and the spread of more robust examples of rural
economies in urban contexts: urban agriculture tied to farmers
markets, mutual-aid and welfare networks associated with local
circuits of food production and consumption, complementary
currencies and other economic forms giving a new inflection to
the rural dimension of a city.

In many cities in Argentina the strong growth of these networks
is a response to the 2001 financial crisis and many families' sub-
sequent need to invent new jobs for themselves in order to sur-
vive. In cities like Rosario (with one million residents) thousand
of families have turned to urban agriculture and horticulture to
withstand the devastating effects of the crisis. These activities
have generated parallel economies that allow a significant por-
tion of the population to continue to have access to food at low
cost or without spending money, insulating the prices of prima-
ry production from unchecked inflation. These are true paral-
lel markets that provide alternatives to a state and market that,
in Argentina, were at the root of the failure of an entire nation.
In reality such examples demonstrate an ability to create value
that goes well beyond the simple production of food for the city
or the control of prices: the Argentine experience, like many oth-
er forms of social and solidarity economies that took root at the
same time throughout Latin America, bases the generation of
economic value on relationships between people, creating local-
ized services and new enterprises that do not fit into the stand-
ard categories of state and market.

The combination of these elements, together with the emer-
gence of new demand for political representation, led to the first
civic policies on urban agriculture: the Urban Agriculture Pro-

gram (*Programa de Agricultura Urbana*, or PAU) supports the cultivation of vacant urban land by adopting productive models geared toward agroecology and social as well as environmental sustainability. Urban food production thus becomes part of a municipal strategy that brings together urban planning, the fight against poverty, personalized services, and environmental policy, as well as commerce and business development.

The case of Rosario is emblematic of an evolution underway in cities across South America, which is becoming the cradle of a wide range of policies linked to cities' food security adopted since the early 2000s by local governments throughout Latin America, with the encouragement of international organizations and numerous projects developed on the ground in partnership with NGOs and others engaged in international cooperation.

During this same transitional period between the 1990s and 2000s, in many cities throughout North America and Europe a wide variety of new food-related social practices began to emerge that are not the product of any single cultural tradition, but rather take many distinct shapes and forms. These trends include the search for more sustainable lifestyles, for example, or the increasing size of urban immigrant communities, the transformation of urban poverty, the rise of critical or conscious forms of consumption, and the need for many younger people to create jobs for themselves out of these new urban ways of living: from the sharing economy and splitting of services to the many forms of flexible and part-time employment on a hyperlocal level that have become popular, particularly in Northern Europe.

These practices may have different names and take different forms depending on their various linguistic and cultural contexts, but the majority of them include urban plots and gardens, community cultivation, markets for local products, ba-

sic food awareness, shared kitchens, redistribution of food sur-
pluses, complementary currencies for local circulation, or other
micro-economies that are emerging in all phases of the food cy-
cle, from production to re-use and recycling of organic waste
and discarded food. These initiatives are often microscopic and
grow by word of mouth, and in many cases they develop out-
side institutions' field of vision. Just as the many social food
practices emerging in cities are born of different cultural im-
pulses, this distance between the practical and the political is al-
so the product of distinct influences, ranging from institutions'
scant interest in social practices and local economies outside the
mainstream, to the challenges of fostering innovation and add-
ing new responsibilities and technical knowledge in an institu-
tional context. On the non governmental side, meanwhile, this
distance stems from the desire to establish spaces for autono-
mous organization outside the institutional framework, social
networks' inability to assume the mantle of formal representa-
tion, or the difficulties of building relationships with more de-
veloped social and economic actors who might be able to help
construct more robust social and productive ecosystems and give
these practices greater solidity.

This separation between the practical and the political is less evi-
dent in places where the ability of social networks and an organ-
ized citizenry to become recognized stakeholders in the public
sphere is combined with governmental actors ability to think in-
novatively in dialogue with citizens. Such forms of collaboration
between social experiments and institutions have taken place pri-
marily in North American cities, in the hope of strengthening and
innovating both the practical and the political. As described in
greater detail elsewhere in this volume, in many North American
cities the junction between social practices and innovative econo-

mies and local institutions can also take the form of Food Councils, representative citizen bodies that channel, discuss, and shape urban policies directly and indirectly linked to food.

Actually, Food Councils were established in North America as early as the 1980s, to respond to the growing awareness surrounding the issue of obesity and related health issues connected with poor nutrition, and to coordinate actions to fight these problems by facilitating access to healthier food at more reasonable prices throughout urban areas. The novelty that became evident around the turn of the millennium, however, was the rapid multiplication of these representative bodies – which, currently, number in the several hundreds in the United States and Canada alone – and the development of tools for coordination of the many activities associated with local and sustainable food in cities. The United States Department of Agriculture (USDA) has registered more than 7,000 farmers markets, with a growth rate that, since the mid-1990s, has oscillated between 15-20% annually; a similar dynamic is clearly visible in the diverse forms of urban agriculture and horticulture, as well as in the multiple service activities that have sprouted up on a community by community basis in connection with food.

THE TURN OF THE MILLENNIUM: CITIES TAKE CHARGE

As these trends gathered steam during the 1980s, then, food gradually made its way on to the urban political agenda, articulated in issues far more complex than the mere need to "feed the city" – touching upon questions of social and economic innovation, welfare politics, the governance of urban areas, and even the mechanisms of representative democracy.

The birth, spread, and articulation of these urban politics was not, however, due solely to the many forces pushing from below to encourage the rise of new urban food cultures: they also revived attention to rural issues in urban areas. In each individual context, the elaboration of specific municipal policies on food related issues depends upon many elements that draw upon local factors and opportunities that resist facile syntheses. Alongside these unique civic experiences, another symbolic turning point in the creation of urban food policies was heralded by debates over the definition of the Millennium Development Goals. These debates refocused global attention on the nexus joining the need to improve the sustainability of urban areas with the management of agro-environmental and food cycles on both an urban and regional level.

With respect to the Millennium Development Goals, two particularly significant moments on a cultural and institutional level were marked by the report titled *Food for the Cities* released by the FAO in 2000, and the subsequent conference on agriculture and the city co-sponsored by UN-Habitat in 2001. It is interesting to note that the two United Nations agencies that worked in parallel to help further the debate were the FAO and UN-Habitat, agencies representing the rural and urban faces of the UN.

The policy targets agreed upon with the Millennium Development Goals require the involvement of both local activists and technical specialists. This is the case, for instance, with the *Millennium Ecosystem Assessment*, which indicated the types of services that each local ecosystem should strive to guarantee in order to increase the overall sustainability of the planet. Among these ecosystemic services, the assessment explicitly referred to the goal of improving the relationship between urban and ru-

ral habitats. More recently, in this dialectic between local policy and international institutional recommendations, the WHO's Healthy Cities programme identified its primary objective for the 2009-2013 period as health equality, to be achieved in part through the inclusion of food policies in urban planning.

If the activities of the WHO in this regard were oriented more toward the promotion of best practices on a voluntary basis, other UN agencies have built frameworks for higher level policy and standard recommendations. One of these, proposed and negotiated in the FAO, is aimed at regulating land access in ecologically sensitive regions and environments subject to major transformations, like urbanized areas (*Voluntary Guidelines on Responsible Governance of Land Tenure and other Natural Resources*).

Finally, the strategic importance of rural policy in urban environments has been codified on a global scale in the *Report of the Special Rapporteur on the Right to Food*, adopted in August 2010 with a special resolution by the General Assembly of the United Nations to guide the efforts of UN agencies.

In the wake of these international institutional initiatives, the process of defining the Global Agenda Post 2015 has profited from the worldwide experience of the Millennium Development Goals. The Agenda Post 2015 is set in a perspective that views cities as integral parts of regional territorial systems that must be governed as a whole so that the movements of people, goods, and services that take place in each of these regions can contribute to more balanced and lasting development.

The centrality of cities and urban policy thus assumes an unprecedented priority compared to the "by nation" approach that characterized previous decades. The exchange of knowledge and development of common policies among the major cities of the

world also thus assumes greater weight, as does the importance of food and agro-food systems as one of the priorities on the global urban agenda.

At an international level, then, the relationship between food and the city is increasingly situated in an intellectual framework that sees the strengthening of food systems in cities and metropolitan areas as a key contribution to moving an increasingly urbanized world in a sustainable, equitable, healthy, and resilient direction. In the evolution of institutional culture, it is worth pointing out the inclusion of food-related topics in reports that lay out visions and future plans for various cities and metropolitan areas in both Europe and North America. Such is the case, for example, in London, the Randstadt – the conurbation including the chain of cities that forms the heart of the Netherlands – as well as the Ile de France region, the conurbation along the East Coast of the United States, and the central coast of California.

URBAN FOOD POLICIES AND STRATEGIES

The convergence of all these institutional and non-institutional trends, both locally and internationally, has created a sphere of urban policy that may go by various names depending on the specific linguistic context, but that is focused on the definition of urban food policies and, in more complex cases, urban food strategies.

As we have seen in the preceding pages, this policy arena has distant origins and a longstanding heritage. On the other hand, one cannot help but note how, in recent years, various scholarly disciplines have also developed an interest in this area, contrib-

uting, as often happens in other fields subject to international scientific debate, to the widespread use of Anglophone expressions like *food policy*, *food planning*, and *food strategy*.

These terms, used both to define the scope of such policies as well as identify the technical instruments that might be deployed to construct and implement them, possess various inflections depending on their context. There are as yet no uniform classifications or standardized procedures. In general, they refer primarily to the tools of governance that help connect stakeholders and issues related to food, defining spheres of action, objectives, and the procedures necessary to define, implement, and measure policy.

In keeping with their origins, many North American urban food policies possess the primary goal of combating the explosion in the number of people who are obese or are affected with cardiovascular illnesses, as well as the fight against urban poverty. These goals are almost always linked to the identification of alternatives to the seemingly bizarre lack of fresh, healthy food across broad swaths of many cities and regions because of growing polarization in the food industry that revolves around large commercial structures serving wealthier neighborhoods and areas.

In Europe, urban food policies are based in different preconceptions and have been given different names, as well as different tools that, frequently, can be traced back to local programs rooted in Agenda 21, highlighting, once again, the strong ties between urban food policy and the scale of urban sustainability. Finally, in several cities, these policies are explicitly promoted in connection with regional marketing initiatives aimed at increasing the attractiveness of urban areas through the improvement of green spaces, the diffusion of localized services, and trade policies that facilitate the distribution of high-quality local products.

As we have noted, and as we will see again further ahead, together these trends go well beyond the need to feed cities, calling into question our perspectives on how to think about cities as a whole. This conceptual leap is made explicit in several more mature cases, which do not limit themselves to promoting a number of projects within a single framework, but instead outline clear objectives for changing the shape of their cities, these cities' relationship with their surrounding areas, and their role in the economic system. Urban food policies are already, and increasingly, a crucial key for increasing the sustainability and resilience of cities, their neighboring areas, and their entire bioregions.

We can thus identify several developments of great importance both in terms of the changing priorities of the urban agenda with respect to sustainability, as well as the prospects for a different role for cities in an urbanizing world.

2. AN OVERVIEW OF URBAN FOOD POLICIES
By Andrea Calori, Andrea Magarini

THE PARADOXES AND URBAN CULTURES
AT THE ROOT OF POLICY

Public efforts to address food systems at the metropolitan level developed with greater seriousness in the 1980s and 1990s. The region that contributed the most to its emergence as a policy issue was North America, where food systems began to be treated not only as the subject of policy on a sectorial or general economic level (in terms of production, agribusiness, commerce, etc.), but also and above all as instruments for development of citizens' quality of life, a strategic approach that emerged primarily in the United States and Canada and in other places heavily influenced by Anglophone culture.

At first, these North American cases evolved largely as a response to certain inefficiencies in the organization of food chains (transportation, regulation, changes in the commercial marketplace, etc.) and growing concerns about the negative effects of many Americans' lifestyle and eating habits. As an example, we might cite the increasing rates of childhood and adult obesity in the United States in recent years, the emergence in many parts of the US of so-called "food deserts," parts of a city

where existing systems of production and distribution make finding nutritious food at reasonable prices virtually impossible. Obesity and the lack of adequate food may stand at opposite ends of the spectrum between opulence and indigence, but they also co-exist side by side and share common roots in the unsustainability of the current food system that is in part a function of world urbanization, which has reached its apex in many North American cities.

In the American context, two additional significant factors concerned the widespread practice by which local governments construct policies through public participation and negotiation, and an institutional culture in which the management of public spaces and initiatives is often delegated to actors from the private sector. These kinds of approaches encourage the raising of new issues at the intersection of societal demand, market innovation, and institutional mediation, as well as the inclusion of these issues as subjects for the public sphere: including food, in its broadest and most complex sense.

This debate also gradually emerged in Europe, initially as an outgrowth of civic experiences with autonomous organization (collective management of spaces, solidarity economies, mutual-aid societies, etc.) or awareness-raising activities and campaigns led by actors in civil society (associations, NGOs, etc.), only more recently entering the institutional arena and joining technical-scientific debates. Unlike North America, where the issue was initially associated largely with the struggle to combat the harmful effects of distribution systems or illnesses linked to poor nutrition and lack of access to healthy food, in Europe the common threat generating attention and the first steps toward action concerned the sustainability of food cycles, and the relationship between producer and consumer, with a

marked tendency toward approaches drawn from social and solidarity economies.

In this book the global South will remain set against the backdrop of the general questions outlined in the first chapter, but it is worth remembering how in many African, Asian, and Latin American contexts, the relationship between food and the city is viewed primarily in terms of food security in connection with poverty and local economic development. Over the years these themes have also been integrated into North American and European perspectives, framed primarily in terms of equality of access to healthy food, urban poverty, and the inclusion of various forms of social and informal economies.

Since the early 2000s, the general trend in this area has shifted toward an increasing integration of debates over sustainability, the role of agro-food systems, and urban development, thus encompassing a wide array of policies and services. This renewed awareness has taken more concrete shape in views of agro-food systems as a part of urban life that requires a specific set of policies focused on the city – that is, the urban side of societies and their economies.

This trend has repositioned the relationship between food and city as an issue that extends far beyond the mere question of nutrition, or the efficiency of a city's commercial marketplace and distribution systems, an issue that increasingly requires systematic analysis and assessment of all its many aspects, and policies that are equally comprehensive.

Relationship between food and cities in the different regions
(red markers indicate the city later analysed)

North America
Contrast to diseases
associated with food (obesity)
Access to food
in food desert areas

Public debate
local institutions
government agencies
scientific community

Europa
Food as equity in the markets
Relationship producer-consumer
Community Supported Economy

From experiences
of the civil society
and the local institutions

Food as infrastructure
for urban development

Africa and Asia
Food security
and sovereignty
empowerment

NGO
international
cooperation

Latin America
Food security and sovereignty
Local economic development

NGO
South-South cooperation

THE SUBJECT AND CONTENT OF URBAN FOOD POLICIES

The differences in culture and context outlined above that lay at the roots of today's urban food policies have led to a great number of cases that, despite their wide variety, demonstrate several constants and commonalities, particularly in the most mature examples.

Urban food policies go by several different names depending upon the place where they were created: the very definition of food policy – the term most widely used in the existing litera-ture and in the media more generally – only truly refers to ex-amples from English-language countries and international or-ganizations that commonly use English.

However, this is not the term used in Francophone countries, Latin America, or Asia, and it is generally little used outside of academic circles or in places where local actors are not en-gaged with the international community. Beyond presuming the use of English, the words *food* and, especially, *policy* each can assume very different shades of meaning depending up-on the context.

The semantic implications contained in the use of the English phrase are beyond the scope of this volume, but it is worth re-membering that it makes sense to speak of interests and inno-vation in urban food policies only when they refer to process-es and instances that make food a priority on the urban agen-da and use food as a key to stimulate innovation on other levels (cultural, institutional, in the economic system, etc.). Reiterat-ing the premises of this book is a valuable reminder to avoid falling into useless nominalism, potentially attributing an air of innovation to practices and policies that, on their own, are al-ready widely established in every corner of the globe (like the

existence of agricultural markets, urban gardens, food education programs, or other individual initiatives).

Instead, what is significant about the Anglophone approach to policy is its potentially *strategic* character, to employ a term shared by various fields from political science to planning. It is an approach that brings together different aspects that are critical for realizing the potential inherent in a wide-ranging food discourse that can serve as a driving factor in a more livable and sustainable city. What might be defined as a "strategic approach" adopts a thorough description of a vision, encourages the integration of multiple themes and various instruments, promotes multi-actor processes, facilitates these actors' assumption of joint responsibility, and, to this end, tends to employ mechanisms to verify the effects of its actions with respect to its initial vision. In Anglophone examples the distinction between *policy* and *strategy* is not always so clearly defined, precisely because of the fact that, in recent decades, the strategic approach has become in some respects implicit in many policies, or at least constitutes a underlying rationale for institutional action and, sometimes, the very goal of action itself.

Again, this text aims to draw attention to the connections between food systems and urban systems as a whole: more *strategy* than *policy*, to adopt the English terms. Policy by the city for the city, then, and as a broader cultural goal, a food policy for an urbanizing world.

COMMONLY RECURRING THEMES

The following pages will summarize several actions deployed by cities that possess more fully developed urban food strategies,

addressing multiple thematic areas. These are not intended to be "case studies" or in-depth analyses of the mechanisms that led to an individual city's choices, or their implementation, on which there is already a very large literature. In some cases these summaries do not even describe best practices from around the world; that would require a value system that does not exist and in all probability is unnecessary.

Instead, what this section seeks to do is provide a series of prompts to give an overview of what it means to enact food policies in an urban area, demonstrating their practical "do-ability" through reference to specific examples and the impacts generated by these choices. These syntheses draw primarily upon cases from North America and Europe, in the belief that the readers of this volume will generally be geographically or culturally familiar with these regions.

These summaries have been organized in ten sections, for two primary reasons. First, because we wished the shape of the text to reflect our choice not to describe each case in full, but rather to explain certain interpretive keys that emerge again and again in each of the cases mentioned. Second, because we wish to use the keys defined in our experience with the development of a food policy for the city of Milan, hoping to connect that experience with its counterparts elsewhere to advance certain hypotheses about methods for organizing knowledge and policy by theme related to urban food.

In the deliberations leading to Milan's Food Policy, EStà [*Economia e Sostenibilità*, the authors of this volume] have helped devise a new approach in the draft document *Le Dieci Questioni della Food Policy di Milano* [*Ten Issues for Milan's Food Policy*], capturing the complexity of the city's food world, facilitating analysis of its many components and the articulation of a gen-

eral vision laid out in ten broad spheres bringing together objectives, actions, and criteria for measuring their effectiveness. These Ten Issues are intertwined with the competencies distinguishing the majority of local bodies, but they do not necessarily correspond to technical or governmental responsibilities in the sector. Each of the Ten Issues should be seen primarily as a point of view from which to consider all the others. Each of them concerns the city as a whole; including issues dealt with by a plurality of actors that operate according to different logics and organizational imperatives, including those outside the jurisdiction of local authorities. The Ten Issues are as follows.

GOVERNANCE

Supporting innovative forms of urban governance represents a fundamental element for the development of food policies as well as their implementation: the manifold nature of the issues surrounding food in fact requires the integration of themes, actors, and instruments that provide particular attention to the methods by which these subjects are addressed. Governance can be articulated in many ways: from active support for autonomous organizing efforts, all the way to the constitution of special technical-governmental steering committees to guarantee the broad oversight that characterizes the most complex policies and an active connection between the many types of actors involved.

With respect to governance, one key element that can be seen in numerous cases is the constitution of special forms of citizen representation for various food-related social needs and competencies. As described in the first chapter, existing forms of institutional representation (such as town councils, sectorial bodies, etc.) often add councils specifically dedicated to food-related themes, charged with listening, directing, consulting, or

deliberating, sometimes in conjunction with other formal representative bodies.

Governance also includes the measurement of policies' impact and communicating their goals, through the definition of the necessary metrics and the publication of regular reports as part of the broader process of public accountability.

EDUCATION

The theme of education is another component that can be found across almost all our cases: in fact, even more than as the subject of individual initiatives, education is an omnipresent element in other initiatives and policies to foster the change in perspective necessary to move from a view of food as a sector to one more capable of grasping its full complexity.

A great many cities boast educational programs, cultural initiatives, and publicity or awareness raising campaigns on food issues to increase citizens' knowledge of the choices available to them. More interesting are those cases where media and educational initiatives are linked to policies that have specific objectives, with the goal of explaining and popularizing such policies, thus contributing to their efficacy.

The Belgian city of Ghent, for instance, has promoted awareness of sustainable food alternatives by providing a weekly vegetarian option in public dining facilities, while Vancouver supports the diffusion of community kitchens as part of a broader social policy in which education about food options also plays a role in preventive health care for the less fortunate (please see the figures concerning the cities of Ghent and Bristol).

WASTE

Waste refers to the many impacts generated both by lifestyle and consumption as well as the organization of the food cycle in all its phases. In this context, the definition of waste includes primarily those aspects that can be considered to be within a city's interest and jurisdiction. It tends, then, to refer to the treatment of scraps, surpluses, and garbage that move through processing and distribution circuits, as well as the commercial marketplace and individual or collective consumption. As an example, the City of London (please see the figure concerning the city of London) has enacted a program to reduce food waste in cooperation with local stakeholders, supporting and advising businesses on how they can manage waste and excess more efficiently. In their own food policies, the cities of Malmö, Vancouver, Melbourne, Shanghai, and several other metropolitan areas have publicly stated their goal to reduce waste from consumption, and their intention to transform organic waste into compost or energy through the production of biogas.

ACCESS

The theme of access encapsulates all the ways in which needs and rights to food are articulated by or on behalf of various social groups: children, adults, the poor, immigrant communities, refugees, etc. Access does not concern only economic questions, but also cultural and nutritional issues, and the practical organization of ways to make food available: for example, the largest American cities have for many years had policies in place to combat food deserts, those broad swaths of metropolitan regions where changes in distribution chains and the commercial marketplace have left behind a lack of retail establishments stocking healthy, low-cost food. To reverse this phenomenon, Toronto

(please see the figure concerning the city of Toronto) and several U.S. cities have provided support to retail outlets offering reasonably priced, healthy food, businesses often managed by nonprofit groups or citizens' networks in direct contact with local producers; elsewhere, governments help coordinate networks of vendors to distribute price-controlled products donated by the large supermarket chains.

In Bristol, Curitiba, and many other cities around the world, the expansion of programs to provide nutritional support for critically needy segments of the population has been associated with complementary currency networks and local financial or fiscal initiatives that encourage the circulation of goods and services on a town or neighborhood scale.

WELLNESS

The definition of wellness brings together material, cultural, and symbolic aspects that possess great relevance in terms of citizens' quality of life as well as social cohesion and the general objectives of policy.

To cite one example: the employees who serve students in dining halls across London attend a training module for all those who work in public establishments designed to educate them about nutritional issues, so that they may better assist their young charges with their food choices. Similarly, as part of a program to combat chronic conditions like obesity, diabetes, and cardiovascular disease, New York (please see the figure concerning the city of New York) has adopted nutritional standards for food procured, distributed, and served in public dining facilities throughout the city, including hospitals, soup kitchens, jails, and public offices.

ENVIRONMENT

The urban food cycle has several implications for the environment that interact directly with the constituent components of the environment itself (air, water, soil, energy) or with its surroundings more generally.

Many examples of urban food policies are promulgated with a very full awareness of the interactions between food, humans, and the environment, and with the intention of reducing the impact of food cycles: for this reason, especially in Northern Europe, urban food policies develop under Local Agenda 21 or as part of comprehensive urban strategies that also outline objectives for environmental sustainability.

AGRICULTURAL ECOSYSTEMS

This theme can take different shapes in different cultural and institutional contexts, including initiatives linked to cultivation methods in urban and periurban environments, criteria for the planning of settlements around rural and agricultural activities, or broader ideas about how to manage biodiversity in the urban environment.

New York (please see the figure concerning the city of New York), anticipating an additional one million residents by 2030, has developed a integrated sustainability program that includes criteria for maintaining the agro-ecosystem during this expansion, while the Dutch city of Almere has elaborated similar criteria as a basis for the government of its entire urban core. In the region of Frisia, again in Holland, cooperatives that operated on agro-ecological principles are building up the economic base for a sustainable approach to managing the environment and countryside on the periphery of some of the most densely populated areas of the Low Countries.

PRODUCTION

For the sustainable management of food cycles, production cannot be considered solely in terms of the urban and periurban, and when it comes to the largest metropolitan regions, in particular, the idea of feeding cities with food produced in the immediate vicinity cannot be viewed as a viable, permanent solution. That said, the existence of urban agriculture as an integral part of metropolitan regions has a much greater role, value, and potential than might be commonly thought.

Given the many types of value or the impacts that can be created by the proper management of agriculture in the urban environment, the theme of production constitutes one of the principal drivers of urban food policy. From an urban perspective, the role of agriculture is intertwined with the many varieties of urban or community garden, shared fields, or the communal farms and other production facilities that sprout up in and around cities. The value-added of each of these types of production nourish a social biodiversity composed of criteria for production, modes of organization, and communities focused on finding new forms of meaning in urban farming.

Vancouver, Montreal, and Shanghai have accumulated a great deal of experience in developing programs for horticulture in public open space or areas on the urban fringe; several other cities have programs to support urban horticulture, including educational initiatives, services for growers, agro-ecological standards, or support for the creation of new economic activities. Many cities have municipal projects to encourage cultivation, addressed to immigrant communities and designed to encourage culturally appropriate urban agriculture.

BUSINESS AND FINANCE

Financial implications are frequently overlooked in discussing food as a subject of urban policy; this is probably due to the fact that local initiatives are commonly perceived to be entrusted to autonomous social organizations that do not possess access to the financial or fiscal levers of power or, frequently, are treated like marginal activities that do not require the use of fiscal tools devoted or set aside especially for them.

Nevertheless, many cities have transformed social experiments into broader policy by manipulating these fiscal levers and supporting various forms of innovation in their own food systems with specific financial instruments.

In addition to the array of complementary currencies mentioned in the section on *access*, for example, Berkeley, San Francisco, and New York (please see the figures concerning the cities of Berkeley, San Francisco and New York) have each promoted the application of a local tax on carbonated beverages to combat the spread of sugary drinks that can lead to obesity. The proceeds from these initiatives are supposed to be used to support initiatives combating this condition and its effects.

TRADE

The commercial policies discussed in this book will be examined not so much for their regulatory aspects, typical of any local entity, but as an element for change in food systems. From this perspective, trade policies include a number of different tools that can serve this objective.

Activities that should be viewed from this perspective range from tax breaks for the opening of farmers markets or retail sales of quality local produce, to the combination of informational and educational initiatives available at this type of retail location, to

the creation of ecosystems of enterprises that make it possible to create distributive and retail systems with low environmental impacts (zero-emission shipping, waste reduction, distribution of unpackaged foods, recycling, etc.).

Brazil has promulgated a national policy to facilitate the distribution of organic foods produced by family-run agriculture in cities and public dining facilities, while Toronto has channeled city food procurement toward local purveyors and introduced certification for local businesses. New York has altered the procurement practices for all its public offices to encourage local production and thus stimulate the state economy, while Bristol (UK) has promoted the spread of fair trade for years, as part of a wide-ranging program for sustainable consumption (please see the figures concerning the cities of London and Bristol).

EXAMPLES FROM AROUND THE WORLD

The following pages describe examples of urban food policies that form a significant part of broader strategies created by cities at the forefront of contemporary trends. These examples are organized according to the thematic scheme laid out above. Descriptions of these examples are meant to be synthetic overviews to demonstrate certain distinct features of each case in order to offer an overview of potential prompts for action.

GOVERNANCE

Toronto Food Policy Council

The city of Toronto (please see the figure concerning the city of Toronto) was one of the first cities to work on a food strategy,

starting with the integration of decisions by the public and by activists associated with access to healthy food and local economies. The Toronto Food Policy Council (TPFC) was established in 1991 as a subcommittee of the Health Council of Canada to support the city on issues related to food and nutrition. This experience inspired the TPFC to foster dialogue among different stakeholders to develop policies and innovative projects that have contributed to improving the city's food system. The members of the TPFC identify and prioritize major issues, and promote advocacy and networking among stakeholders that can translate these priorities into action as well as various sectors of public administration.

The TPFC is extremely active, with a vast array of initiatives on local food policy.

- Toronto Food Strategy: The TPFC works in close contact with the Toronto Public Health food strategy team, representing a reference point for the community.
- Urban Agriculture: The TPFC participated in the elaboration of the urban agriculture action plan GrowTo, approved unanimously by the Toronto city council in 2012.
- Greater Toronto Area (GTA): The TPFC is an active participant in the GTA agriculture committee, providing coordination for the GTA on agricultural issues, sharing information and resources to raise awareness on various issues, serving as a liaison with various levels of government, encouraging innovation and diversification in the agricultural sector, and bringing together resources and energy to make its initiatives more sustainable.
- Greater Golden Horseshoe Farm: In collaboration with the GTA and many other groups, the TPFC participated in the development of the plan of action for the creation of a public farming alliance.

- Toronto Youth Food Policy Council: The TPFC supported the creation of the first youth council on food issues, which seeks to mobilize and engage young people to promote change toward greater sustainability.
- Local Food Act: The state of Ontario, acting in part on the advice of the Toronto Food Policy Council, approved a local food bill (Bill 36) on 5 November 2013 that includes a local food investment fund of $30 million Canadian to create jobs and support local food projects for the following three years. Thanks to this law, Ontario became the first region in Canada to adopt legislation aimed at increasing awareness, access, and demand for local food, promoting the provision of local food to institutions in the public sector (schools, public offices, hospitals, and food kitchens).
- Ontario Food and Nutrition Strategy: The Toronto Food Policy Council actively collaborates with a vast coalition of local groups to encourage a comprehensive food strategy for the entire province of Ontario.

Cape Town: Food Dialogues

As part of World Food Day in 2014, Cape Town co-sponsored a series of 10 meetings called Food Dialogues. These events were a platform for the sharing of ideas and opinions to fuel debate on the need for a more healthy and conscientious food system. Various experts were brought in to share different perspectives on food, in order to allow producers, academics, activists, writers, nutritionists, and anyone else interested in a more sustainable approach to food with an opportunity to engage more deeply in the debate on these topics with respect to Cape Town. The Dialogues were then gathered in a report available online, which contained numerous recommendations for local measures

to work on. The Dialogues were organized around the following themes: hunger in the city, food flows, urban agriculture, the edible environment, public space and food, indigenous food, ecosystems and agriculture, living well, transforming waste into resource, and the growth of food growing sites.

Melbourne: Public Consultation

The city of Melbourne (please see the figure concerning the city of Melbourne) has developed its own food policy based upon five themes established after a process of community-based consultation and participation: a strong, food secure community; healthy food choices for all; a sustainable and resilient food system; a thriving local food economy; and a city that celebrates food. In August 2011 it undertook a large-scale community survey on food issues to make the planning of this food policy as participatory as possible.

The whole process unfolded around interaction with residents: first, a group of experts produced a discussion paper in non-technical language on the state of food at the local, national, and global level. This document was then used to guide the first phase of the survey, distributed online and sent directly to the primary actors in the sector to solicit their observations.

A second, more detailed document explaining the rationale for a food policy was also made available for free in public offices and mailed to key stakeholders. Then the city led a drive to raise awareness, sending postcards out to various associations, schools, local businesses and public offices that asked children to talk about food with their parents. Meanwhile, a parallel advertising campaign used billboards throughout the city to draw attention to food-related issues.

Following this media barrage, three citizen forums were held

involving representatives and key stakeholders in Melbourne's food sector. Finally, a group of experts processed all the resulting input and compiled a draft food policy that was taken before a vote by a part of the city council. This text was made available to the public for further consultation and submitted to a public approval survey.

An additional public meeting gathered final comments before the policy was definitively approved by the city council on 5 June 2012.

London: Social Oversight of Programs in the Boroughs

This citywide initiative was sponsored by public interest groups with the support of the municipal authorities (please see the figure concerning the city of London). Its name is Good Food for London, and it is based upon an annual report compiled with the participation of each of London's 32 boroughs. It was not developed by public policymakers but rather by a broad alliance of social activists from the London food scene called London Food Link. After its creation the city, recognizing the importance of the initiative, extended its support through the London Food Board, the city's advisory body for such issues.

The first report was released in 2011, and since then has been updated annually in a publication that describes the progress of various initiatives monitored during the preceding year. The report is produced independently, and includes a classification of all 32 boroughs to provide a clear indication of the commitment made by each part of the city to supporting healthy food practices, with a particular focus on the most vulnerable members of society, including children, the elderly, and the ill or disabled. The report also serves to monitor progress toward goals set out by borough councils.

The report, initially organized around six principal themes, was broadened in 2014 to include nine priority areas articulated through a series of city maps that visually highlight the activities of each borough in these spheres. These areas are titled: "Baby Friendly," "Food Growing," "Living Wage," "Fairtrade Food," "Food for Life in Schools," "Good Fish," "Animal Welfare," "Healthier Catering," and "Food Partnerships." The report identifies the most active boroughs in each sphere, and describes the initiatives they have undertaken in order to encourage their emulation by other social and institutional actors. Yearly monitoring fosters regular debate in borough councils and keeps policymakers accountable through the publication of the results they achieve.

New York: Monitoring the Food System

With Local Law 52 in 2011 the city of New York (please see the figure concerning the city of New York) enacted a systematic monitoring process for its entire food system, gathering and comparing the data already collected by other public agencies as part of a joint effort. The law calls for the production of an annual report titled *Food Metrics for New York City*, which outlines and describes the city's progress in 19 thematic areas through a correlated set of indicators. The report is produced by the Office of Long-Term Planning and Sustainability, and discussed by the New York city council every September.

The case of New York is interesting because it represents the will of a city to undertake systematic oversight of its own food system, fostering knowledge and communication that is the basis for more concerted and structured governmental intervention in the arena of food.

To make New York's program more streamlined and efficient, a

Mayoral Office for Food Policy was established to facilitate collaboration between city hall, the various public agencies at work throughout the city, and their non-governmental partners in order to reach their goals and create synergies between live programs in the food field. The office also supervises the drafting of the annual report and contributes to the yearly addition of new indicators, increasing the quantity of information available to public officials, stakeholders in society, and private citizens. The spheres that collect the most data and indicators are concentrated under the following themes: the quality of city food procurement, access to healthy food, the promotion of awareness of healthy food, food security, the sustainability of the food system, and economic development.

The report is organized into a two sections, the first descriptive and interpretive, illustrating the context in which each metric was created, and the second in which all the data are presented in table form.

San Francisco: Analysis and Assessment of the Food System

The city of San Francisco ((please see the figure concerning the city of San Farncisco) completed its food system assessment in conjunction with the San Francisco Food Alliance. The Alliance was formally established in 2003 during a citywide conference on food, with the aim of creating a large-scale, dynamic and sustainable food movement for the city and county. The assessment report was realized by acquiring data to define a series of indicators for monitoring of the city's food system, using already existing sources. The goal of the assessment was to pool and correlate data from several sources in a single document, creating a resource to help guide decision makers in the developing of food policies through an analysis of their actual state.

The food system assessment concluded with a series of recommendations including specific prescriptions for economic, educational, social, and institutional actors to improve public health through healthy food.

While the Food Alliance produced the report, the management of the project was entrusted to the San Francisco Department of Public Health. Upon the creation of the assessment, the mayor's office proclaimed an executive order that represents the de facto food policy for San Francisco. The order contains a series of directives for all sectors of public administration so that all are responsible for the part of the strategy under their jurisdiction.

Bristol Food Council

The Bristol city council commissioned the report *Who Feeds Bristol?* The report was created with the help of the National Health Service (NHS), and is focused on the city and its regional context within the West of England. The report detailed a full analysis of the food system, highlighting urgent priorities and opportunities, particularly in relation to the local economy and the program to transform Bristol into a "green capital" (please see the figure concerning the city of Bristol).

Following upon the release of the report, several public discussions were held to increase the awareness of public agencies, socio-economic stakeholders, and local residents with respect to the notion of healthy food. This participatory process led to the drafting of a Charter containing principles of "good food for people, places, and the planet." The Charter also included text, diagrams, and images to communicate the critical needs and future potential for the food system, and to lead the city and region toward a sustainable transition, encouraging a local economy based on the production of high-quality food.

This process of active public participation and discussion helped create the Bristol City Food Council (please see the figure concerning the city of Bristol), charged with defining the actions necessary for the creation of a sustainable local food system, and engaging interested public agencies and the various private stakeholders necessary to achieve this goal. The Council is composed of representatives from public agencies, local associations, producers, distributors, logistics, and universities.

Milan: Municipal Support for Growers' Associations

The City of Milan has thrown its support behind the creation of the *Consorzio DAM* [*Distretto Agricolo Milanese*, or the Milanese Agricultural District Consortium]: a society formed by 33 urban farms operating within the city limits. The Consorzio operates according to a District Plan agreed upon by the farms, which outlines a series of guidelines for action regarding land and the environment (the cleaning of waterways, protection of the shoreline, maintenance of the countryside, etc.), and other activities of a more social or instructional nature (environmental education, cooperation with schools, etc.), as well as economic initiatives (direct sales to consumers, communal sharing of farm services, etc.). More recently the Consorzio DAM has signed a Regional Development Framework Agreement with three other Agricultural Districts in the area (*Davo*, *Riso e Rane*, *Dinamo*) as well as the City of Milan, the Metropolitan City of Milan (the provincial authority), and the Region of Lombardy. This agreement, titled *Milano metropoli rurale* ["Milan: A Rural Metropolis"] indicates a series of objectives for sustainable urban and rural development throughout the metropolitan area, integrating government actions with those promoted and managed by farms and agricultural enterprises.

EDUCATION

London: Public Media
London's food policy (please see the figure concerning the city of London) prioritizes increasing awareness to encourage Londoners to understand the importance of food issues. To do this, the city promotes a media campaign designed to spread the word about healthy food with the goal of protecting the health of its residents. This campaign particularly emphasizes the consumption of fruit and vegetables to reduce childhood obesity, and is coordinated with other campaigns managed by other actors already engaged throughout the city on similar themes.

Toronto: Prenatal Information and Scholastic Education
Toronto (please see the figure concerning the city of Toronto) links programs sponsoring food education in the schools with initiatives offering prenatal education for expectant mothers, providing advice on childhood nutrition, clinics with nurses and dieticians, free counseling over the telephone, and public clinics specifically for breast-feeding. After the child is born, the city encourages new mothers to breast feed for the first six months of the child's life, recommending to continue providing breast milk for the first two years.

To help parents and health workers, the Peer Nutrition program has also developed a series of culturally appropriate guides to nutrition for the city's largest ethnic immigrant communities, translated into their native languages. After the weaning period there are also programs to support pre-scholastic nutrition.

With regard to the schools, Toronto provides some 160,000 students with its Student Nutrition Program, that includes a series

of subprograms to provide breakfast, lunch, and a snack, each of which is conceived with an eye toward classroom learning as well as the prevention of obesity and other diseases linked to poor childhood nutrition. These programs are above all a tool to promote good health and learning to the students and, to that end, the city has sponsored a series of surveys to demonstrate the increase in school test results associated with healthy nutrition. As for the funding assigned by the city to schools to offer meals and snacks, these cover only a small part of the cost of such services, which continue to be born largely by local sponsors and families themselves.

In 2008, the city began a biannual program to provide a healthy morning meal to approximately 6,000 students in four middle and secondary schools. The program was assessed using both quantitative and qualitative methods to evaluate the relationship between a morning meal and scholastic results, perceived wellness, and quality of life. In the first year, school administrators and teachers reported that the benefits associated with a morning meal included improved student behavior, a reduction in tardy attendance, fewer incidents of disciplinary problems, increased attention span, and generally better results. At the end of the second year the results derived from approximately 4,000 students demonstrated a positive correlation between a morning meal and school test results compared to students who did not take part. The differences were particularly evident in several areas: independent work (70% vs. 56%), independent initiative (65% vs. 51%), problem solving (66% vs. 53%), classroom participation (72% vs. 60%), and reading (61% vs. 50%). The majority of students also reported that the program had satisfied their basic needs and improved their sense of wellness.

Ghent: Vegetarian Thursdays

The city of Ghent (please see the figure concerning the city of Ghent) is proposing to make itself the European capital of vegetarianism: to that end, it has begun a series of initiatives to promote this way of life and to reach the ever growing population of vegetarians, who every Thursday can find a number of restaurants in the city that provide menus based solely on grains, greens, and vegetables.

The *Donderdag Veggiedag* initiative was inaugurated in 2009 with 13 participating restaurants and subsequently it has grown, involving an ever-larger number of public and private establishments and an increasing percentage of its citizens. Today there are 35 schools with 3,000 students who can choose a vegetarian dish every Thursday, while family participation, which is entirely voluntary, has reached levels upwards of 90%.

Vancouver: Community Kitchens

Within the city there are several community kitchens, situated in social spaces like churches, neighborhood centers, and recreation facilities, where people can meet and prepare food together. The community kitchens are an initiative for food education founded on the transmission of knowledge through hands-on experience.

The community kitchen is a laboratory, where people who possess common interests and hobbies can come together to share the preparation of a meal, thus linking the recreation of leisure time activities with the daily act of eating.

Currently in the city of Vancouver (please see the figure concerning the city of Vancouver) there are at least 50 community kitchens, which are in large part promoted by local groups or associations and are not managed by the city. The local author-

ities, meanwhile, give make their contribution through food ed-
ucation programs aimed at adults.

Milan: Collaborative Networks for Education

Milan has the highest concentration of institutions devoted to
instruction, education, and research on food-related issues in Ita-
ly. Many of these, particularly nonprofit associations and NGOs,
work in conjunction with schools and administrators to handle
a significant proportion of food education and to provide ser-
vices that run from basic nutritional information to help under-
standing ethical issues, teaching about sustainable development
to school field trips to farms. The municipality, through a spe-
cial city agency, directly manages the provision of meals for day-
care, preschools, and primary schools, as well as some secondary
schools and rest homes for the elderly, a total of some 85,000
meals daily. These everyday activities are also a vehicle for initi-
atives designed to educate, inform, and provide hands-on expe-
rience for children, including test kitchens and school gardens.
Every year Milan holds the *Fa' la cosa giusta* ["Do the Right
Thing"] fair, the largest Italian festival dedicated to solidarity
economies, which brings together approximately 80,000 peo-
ple annually over the course of an entire weekend. The fair in-
cludes a large section dedicated to food, and constitutes a key
site for education on sustainable nutrition and lifestyles through
the various events that take place during the festival, as well as
the many other activities it puts on throughout the year, its as-
sociated publishing house, and many other initiatives involving
festival participants.

WASTE

London: Reducing Waste at the Source

The Food Save program brings together more than 200 small and mid-sized businesses in the London food sector to avoid food waste and put surplus inventory to economically advantageous use by redirecting it for human consumption wherever possible, or for animals, composting, and the production of energy, depending on its potential for re-use. The ultimate goal is to avoid sending any food waste to landfills.

The initiative is financed by the European Fund for Regional Development, the London Waste and Recycling Board, and the office of the Mayor of London.

The program works by bringing together experts to help businesses identify the best strategy for them to re-use, and engages shopkeepers, food carts, farmers' markets, food producers, wholesalers, and growers. The program aims to re-use 1,000 tons of food waste that regularly ends up in landfill and to reduce by 150 tons the amount of food waste tied to food packaging.

Malmö: Recycling

It is estimated that in Sweden somewhere between 10-25% of all food goes to waste: that's why the city of Malmö, in its food policy approved in 2014, has declared its intention to reduce food waste locally and at the source through an awareness campaign to promote the proper use of food and also to make use of non-eliminable waste through the production of biogas.

Some 98% of waste in the Swedish city is recycled to produce materials or energy. As of 2014, all residents of Malmö have been provided with waste grinders to recycle organic waste, which is then gathered and destined for the production of bio-

fuels, in turn used throughout the city to run its buses, garbage trucks, taxis, and cars.

The entire bus fleet has been designed to run on gaseous forms of energy and, currently, the city disposes of roughly 200 buses that use biogas or methane. The city has also developed a complete district heating system, and a great portion of Malmö's heating energy – estimated at around 60% – comes from recycled wastes.

Milan: Reducing Food Waste in School Cafeterias

Milano Ristorazione, the city agency charged with providing 85,000 meals daily to Milanese schools, has developed a project called *Io non spreco* ["I Don't Waste"] to provide primary schools with "*sacchetti salva merenda*" ["snack saving packets"] for children to save and take home the non-perishable food they don't consume at school. This public organization also participates in the Siticibo program run by the city's food bank, a nonprofit that picks up food surpluses from restaurants, public agencies, and supermarkets for redistribution to 124 locations that provide free food to low-income individuals.

ACCESS

London

The city of London aims to intervene in both the quantitative and qualitative aspects of the food purchased through its public procurement channels with the introduction of minimum standards. During the 2012 Olympic games, for example, the city used its purchasing power to establish criteria for the seasonality of fresh food bought and sold in the Olympic Park. Building upon this experience, the city has inserted sustainabili-

ty criteria into its public contracts to help shift demand and promote the consumption of healthier and more sustainable food. By working on the demand side, this initiative openly supports producers of sustainable food and, as a result, reduces the environmental impact of food consumed by the city. This program is particularly focused on the city's hospitals, which also helped produce the general guidelines for public sector contracts.

New York: Healthy Food Access

A study commissioned in 2008 by the mayor's task force for food policy highlighted how certain neighborhoods in the city possess scarce access to healthy food, a lower percentage of consumption of fruit and vegetables, and elevated rates of obesity and diet-related illnesses. These are the so-called food deserts, places where economic and geographic barriers hinder access to healthy, sustainably produced food. When it was estimated that New York's food deserts were home to an estimated 3 million residents, the city decided to make it a priority to develop several strategies to combat such disparities and comprehensively improve access to better food in all neighborhoods, promoting programs to bring reasonably priced fruit and vegetables to citizens via roving "green carts." The number of licenses for retailers selling fruit and greens was increased, programs for farmers' markets were ramped up, and incentives were established to encourage stores to define themselves as "healthy": that is, businesses pledging to develop initiatives in conjunction with residents, resellers, or producers to promote demand for nutritious food in neighborhoods with higher obesity rates. These initiatives were part of a much broader strategy that simultaneously enacted comprehensive monitoring of New York's food policy (please see the figure concerning the city of New York).

Food Emergencies in New York

The city has also enacted various financial assistance programs for persons in need and low income residents. These programs are largely based on a variant of the national "food stamp" program, government vouchers distributed through a series of initiatives, including the use of media to inform potential beneficiaries of their availability, and then monitored in their use. Another initiative, the Emergency Food Assistance Program, helps provide food to more than 475 food kitchens located throughout New York that fulfill the executive order on food standards with which the city has identified parameters for food channels run by public agencies.

In a similar vein, there is the Healthy Food Donation Initiative, in which the city prepares and distributes packages of food to residents at low cost. Such programs also operate in the schools, offering free breakfast to all children before the start of classes and support for low-income families.

Toronto: Healthy Stores

In 2014, the Toronto Food Strategy group and the public health sector developed a project called Healthy Corner Store, which hopes to provide greater access to fresh and healthy food in all of Toronto's neighborhoods, and also supports and certifies businesses in the private sector. A research team analyzed the city's commercial space to verify the feasibility of adding space to the existing structure for a program distributing fresh and organic fruit and vegetables, with an emphasis on local producers. After this study, the Food Strategy team began a trial run in one neighborhood to create a sales point within a pre-existing but underutilized retail site. To identify, plan, and manage the space, residents were engaged in a participa-

tory process. Local consultation helped establish needs and standards for "healthy and sustainable food," residents' buying habits, and the consequent offering of such items by nearby retailers. On the basis of this dialogue a broader survey was conducted involving hundreds of neighborhood residents to ensure that the conversion of underutilized retail would respond to the neighborhood's food needs and thus ensure a solid fit between supply and demand. The Healthy Corner Store project was also supported by a number of other actors from other neighborhoods: the Food Council then organized a series of meetings to open up the dialogue to the whole city with experts from food distribution, marketing, the academic world, finance, architecture, and a number of retail owners to evaluate how to replicate the Healthy Corner Store experience in other neighborhoods with scant accessibility to good food. Approximately 2,000 businesses throughout the city declared themselves potentially interested in conversion, and the project helped develop a "toolkit" of potential solutions to assist in the transformation of underutilized retail space into Healthy Corner Stores, with the ultimate goal of improving the access to healthy food in every corner of Toronto (please see the figure concerning the city of Toronto).

Toronto: The Mobile Good Food Truck
In January 2012 Toronto launched a program to encourage the availability of fresh fruit at reasonable prices even in its food deserts. This intention was transformed into a reality with a food truck, and a process of community engagement that furthered study into the gap in access to food. The initiative was also associated with the creation of warehouses to collect surplus goods still fit for human consumption from other distribution chan-

nels, providing access to low cost foods, and helping eliminate economic and geographic barriers to food access.

Milan: Guaranteeing Healthy Food for the Less Fortunate

The city of Milan supports and participates in numerous programs and projects to improve access to food among the neediest segments of the population, both on its own and through partnerships with various nonprofits that are financed in part by the city itself (social welfare organizations, food banks, soup kitchens, etc.). Among the various initiatives it manages directly, the city delivers meals to the homes of approximately 250,000 elderly and needy individuals, offers 2,700 beds at night for the homeless – who are also provided with nutritional food – and every year organizes roughly 120 lunches, prepared by the so-called Social Kitchens, for the elderly.

WELLNESS

Berkeley, San Francisco, New York: The Soda Tax

Soda and other sugary drinks play a major role in the illnesses associated with poor diet, and a reduction in the consumption of sugar is a priority for the control of such maladies and diseases. To this end, several American cities have decided to take action to limit or regulate the availability of sugary drinks under their purview.

New York was a pioneer in this regard, and in 2012 the New York City Board of Health, acting on the wishes of Mayor Michael Bloomberg, unanimously voted to limit the sale of soda in the city. A limit of 0.5 liters per unit was established, in order to disincentivize the purchasing of larger quantities and thus the intake of larger amounts of sugar. As a result, all food

and drink purveyors (fast food chains, cinemas, food carts, etc.) were banned from serving sugary drinks in larger volumes. The law excluded drinks containing less than a certain amount. The proposal was strongly contested by the soda industry, which unleashed an intense media campaign to oppose the measure. Subsequently, in March 2013 an appeal was filed with the state supreme court, which ultimately annulled the law, invoking the principle of separation of powers and declaring that the Board of Health had overstepped the limits of its authority to regulate such matters. The mayor's office filed an appeal of its own, but the earlier ruling was confirmed in June 2014 by the New York state court of appeals.

The city of San Francisco proposed a similar ordinance on the November 2014 ballot. The law was designed to impose a tax of $0.02 per ounce – a tax of approximately $0.24 on each can of soda sold. Considering the disincentivization to purchase, the measure would have allowed the city to take in an estimated $31 million annually, to be destined for projects to improve nutrition, encourage physical activity, and support diet-related health and education programs. The measure required the approval of 2/3 of the electorate to become law, a threshold that proved beyond its grasp, although a simple majority (55%) did vote in favor. In this case, as well, the soda industry opposed the measure by heavily promoting a campaign against the proposed tax.

Similar taxes were proposed around the same time in Richmond, CA, where it was voted down by a majority of voters (66%), and El Monte, CA, where a majority of the electorate (76%) also rejected the measure.

Things went differently, however, in the city of Berkeley, where in February 2014 the city council commissioned a public opin-

ion poll to established whether to add a proposed soda tax to the November 2014 ballot. Encouraged by the poll's results, the council decided in July 2014 to approve a vote on the measure. The promotional campaign focused on describing the effects of sugary drinks and sodas on children, forming a group called "Berkeley vs. Big Soda" that proposed to apply a tax of $0.01 per ounce on every drink purchased. The group was supported primarily by parents, while the soda industry subsidized the opposition campaign here as well.

Unlike in San Francisco, which proposed to levy a special tax (earmarking the proceeds for specific programs) requiring a 2/3 majority for approval, in Berkeley the measure was put forward as a general tax (where the proceeds would go directly into the city's coffers), which needed only a simple majority. The yes campaign received support from Michael Bloomberg (now ex-mayor of New York), and this combination of factors led the city of Berkeley, in the first case of its kind in the United States, to vote in favor of the tax by a wide majority (76%) on 4 November 2014.

Different analysts have suggested that the principal factor behind the success of the vote in Berkeley was due to the widespread involvement of parents and community leaders, who helped focus the campaign in terms of soda's impact on children's health. The defeat of the soda tax in New York and San Francisco, meanwhile, nevertheless still paved the way for a broader debate throughout the United States on the notion of using fiscal tools to reduce soda consumption and limit the availability of sugary drinks.

Milan: Food and Sociability

The concept of *benessere*, or wellness, can be also be understood in terms of psychological well-being and the quality of one's relationships with others, both individually and in groups. In Milan, there are a number of examples of volunteer organizations and social cooperatives that link the cultivation or processing of food with initiatives to reintegrate disadvantaged populations into the workforce (those with disabilities, the unemployed, convicts and ex-convicts, etc.). The volunteer dimension is one of the key components of these initiatives, which are supported economically through the sale of the food harvested or produced and the other services they provide, as well as agreements with government agencies and outside foundations.

ENVIRONMENT

Almere: Government for a Sustainable City

Almere is a Dutch city founded in 1975 on one of the polders created by the emergence of new land from the waters of the Zuiderzee and, from the beginning, it has been a settlement characterized by the quality of its environment and, later, its clear vision for sustainability. The city was developed around cultivated land that today is a multifunctional farm set in a large public green space managed according to defined criteria for sustainability.

After a participatory process that involved residents and experts, the city drafted the "Almere Principles," seven points for sustainable development, and since then it has pursued polynuclear growth with open space in between. Almere sees the balance between urban and green space to be a critical element of livability, making sure to integrate greenery in the city's public

meeting areas (plazas, libraries, cultural centers, theaters...). The city is surrounded by a wide agricultural expanse that serves as a periurban green belt to ensure ecosystemic services. Almere is a testing ground for many urban experiments and the Dutch university Wageningen is always a key player in outlining the city's sustainability strategies. The university developed the plan, later approved by the city, for the creation of an agricultural quarter called Agromere, in which residents could autonomously make decisions about the development of their own land and thus participate in an experiment for the creation "from below" of an entire section of the city.

Amsterdam: Regional Quality and the Promotion of Local Products

The city has sponsored a program to encourage all city-run kitchens (in schools, public offices, halfway houses, hospitals, etc.) to purchase no less than 60% of its stock from certified quality local and seasonal producers. Taking into account the scarcity of land in Holland, and seeking to guarantee a supply of such goods, Amsterdam introduced a quota of 7% of organic production for use from periurban farms. To encourage a link between this production and public dining facilities, Amsterdam's food policy contains not only quotas but also incentives, such as that for the creation of distribution and sales platforms of local, organic food for both retail and government procurement.

Alongside this initiative, the Dutch Agriculture Minister supports a program to modify children's diets in Amsterdam, systematically integrating into the school curriculum lessons on nutrition, to encourage healthier lifestyles and demonstrate the links between quality food, health, and wellness, in addi-

tion to school field trips to farms and other educational activities. This program engages many different actors (municipalities, schools, universities, public agencies, growers, and associations).

In the realm of tourism, the city has developed several food-related events to increase awareness and information about Amsterdam's food system, including tourist itineraries with maps and brochures to promote local restaurants and producers who use organic products. Between 2010 and 2012, the economic benefits have included growth of 10% in the revenues of local organic producers.

Milan: Compostable Food and Utensils

In the realm of recycling policy (in which Milan is one of the leaders in Europe), city schools are teaching children to separate waste by encouraging them to do it themselves at the end of their meals in school cafeterias, with a particular emphasis on organic compostables. As of January 2015, primary schools have begun to replace the old disposable plastic tableware with biodegradable versions that can be included in compost along with food scraps. This program projects a savings of 16 million plates per year, equal to 240,000 kg of plastic. This has been accompanied by a ban on water in disposable plastic bottles and use of water strictly from public fountains.

AGRO-ECOSYSTEM

New York: Regional Planning

New York predicts an increase of more than one million residents by 2030: to accommodate them, the city has come up with a strategy to improve the sustainability of its ecosystem to

make it compatible with the new impacts that could result from this type of population growth.

PlaNYC is a program developed by the mayor's office to prepare the city for these changes and improve the quality of life for all New Yorkers. Beginning in 2011, PlaNYC has been updated to include food initiatives in its sustainability plan: among its programs are those aimed at facilitating urban agriculture and community gardens inside parks and public spaces, plans for the renewal of neglected areas destined to become green space, and projects to protect waterways in collaboration with state authorities to promote sustainable agricultural techniques throughout the region.

Barcelona: Parc Agrari

Even if it is one of the most rapidly growing cities in Europe, Barcelona has managed to preserve a significant amount of open space in the surrounding area. One solution the city has undertaken is the creation of a periurban agropark that, while not receiving the same protections as forested parks, contributes significantly to the maintenance of the natural quality of its soils and the greater levels of biodiversity compared to other periurban areas on the city's outskirts: The Parc Agrari del Baix Llobregat is, in fact, a protected site for a large number of rare migratory bird species in the Catalan region. In the park there are also some 600 farms cultivating 2,000 hectares of soil, for the most part family farms, and a network of gardens for residents, extensive horticultural facilities, and orchards for an even greater level of soil management.

Barcelona's Parc Agrari also plays a role in forging networks among growers and providing them support to have more coordinated access to European funding for positive development of the agro-ecosystem on the urban periphery.

Frisia: Regional Cooperatives

In the 1990s, the region of Frisia (Netherlands) began an experiment in collective management regarding the measures called for in the European Union's Common Agricultural Policy (CAP) to improve agricultural practices that impact the environment. One of the objectives was to demonstrate the importance of regional cooperatives in guaranteeing local economic development as a motor to drive improvement of environmental quality. In the region, the cooperative served to motivate social capital to create a system capable of engaging growers and workers in the promotion and management of the region, improving the countryside and increasing biodiversity with new solutions capable of integrating themselves into institutional policies and negotiating with higher level authorities.

Starting from this premise, the regional cooperative devoted its energies to marrying the maintenance of raising dairy cattle typical of the area with the relevant norms regarding nitrate pollution: a concrete, collective response to avoid having to reduce the number of heads of cattle as would have been required by the CAP.

This regional system manages a territory of 800 square kilometers in which some 80% of the farms participate through 6 regional cooperatives that include more than 1,000 members, grouped into a single overarching association: The *Noardlike Fryske Wâlden* (North Frisian Woodlands, or NFW). An association that has lasted 25 years, in constant growth, that is responsible for the strategic planning of all rural land in the region, including even in urban areas, and that is organized under a central secretariat that manages a system of services available to all members.

Governance of the NFW has also approved a program of incen-

tives that allows growers to provide environmental services in certain areas; the provision of services is compensated with certificates that can be exchanged for either payment or for other services for their own business.

In the past the land was largely fragmented, with holdings no larger than 0.1 hectare, a degree of division that impeded unified governance of the rural system. In Frisia, they have transformed this disadvantage into an opportunity, enriching biodiversity and the countryside with their own group of woodsmen who have developed a policy aimed at improving the hedges and rows and the quality of the forests with native plantings, which has also provided many beneficial collateral effects, such as an increase in tourism, and has become a driving force in the regional marketing of local products.

Agricultural cultivation has increased its own sustainability with a managed manure cycle that has taken the place of chemical fertilizers, improving the biology of the soil naturally and fulfilling the requirements of EU directives regarding nitrates. This process has also increased biodiversity of the soil and encouraged the return of new bird species, enriching the local fauna.

To combat the difficulty of entering the labor market, several policies have been enacted to create jobs for younger people in roles linked to the woodland economy, including as woodsmen and forest rangers.

Milan: The Parco Agricolo Sud Milano

In 1991, the *Parco Agricolo Sud Milano* was established on 46,000 hectares cradling the southern end of the city, which is heavily agricultural and where there are some 900 individual farms. Over the decades, this part of the metropolitan region has witnessed profound transformations both in terms of the industri-

alization of agriculture, which has produced substantial chang-
es in the countryside and its watershed, as well as urban growth,
which has seen a notable rise in real estate development. The
park constitutes a bulwark on both these fronts, and, over the
years, thanks to its land use plan and managed intervention to
improve agricultural productivity and the promotion of multi-
use farms, has constituted a major fortification against the loss
of biodiversity due to urban expansion and changing agricul-
tural practices.

PRODUCTION

Vancouver: Widespread Urban Production

The city of Vancouver (please see the figure concerning the city
of Vancouver) has for some time been a leader in the widespread
production of food, with some 44% of residents growing food-
stuffs through various forms of urban horticulture and agricul-
ture, creating a contagious cultural phenomenon that has spread
to other Canadian cities like Toronto, Montreal, and Ottawa,
as well as many other smaller towns. Starting with a small sub-
strate of society already conscious of and active in environmen-
tal and quality of life issues, this explosion in popularity was un-
doubtedly due to a growing awareness of the constant, alarming
increase in diet-related epidemics like childhood obesity (which
has tripled in the last 25 years), adult obesity (doubled in the last
25 years), diabetes, and cardiovascular disease. To that can be
added the spread of information about the diminishing quality
of land and water in the area surrounding the city.

As a response to these problems, the city instituted policies
aimed at drastically increasing the production, distribution, and
local sales of food to manage the periurban region, beginning

to seize vacant lands to add to existing cultivation. To monitor, lead, and ensure the fulfillment of this strategy, a city Food Policy Council was created to stimulate dialogue on the food products used by families and to discuss the functioning of the local food system. To further guarantee its success, Vancouver financed activities to increase the production and distribution of local food, including community gardens, urban agriculture tied to farmers' markets, food banks to reduce waste, and other related initiatives.

In 2014, the city also promoted the creation of a new urban agriculture policy that called for, among other things, an increase in community gardens and horticulture in city parks, the promotion of gardening education programs, the planting of fruit trees and urban orchards, as well as bee gardens and apiaries. Currently, Vancouver is widely recognized as one of the most livable cities in North America, and 25% of all its food is produced within less than one hour of downtown.

Food Production in Paris and the Île-de-France Region

The Île-de-France region consumes one million tons of fruit and vegetables every year, but produces only 15% of this amount. In 2012, the city of Paris created nine community gardens for an experiment to cultivate more produce, which was to be monitored for three years; the initiative is supposed to produce a report containing a protocol for the diffusion of this type of model garden. As part of this experiment, the roof of the AgroParisTech school and research center has become a laboratory for testing out innovative solutions for the cultivation of sustainable food in a densely urbanized area.

In 2013 the city released a call for proposals to submit innovative ideas for re-naturalization of open space, from which 15 ur-

ban agriculture projects were selected, including rooftop farming, gardens, orchards, greenhouses, chicken coops, the cultivation of mushrooms, and composting. Currently in Paris there are approximately 100 active community gardens, 20 rooftop gardens, vineyards, 10,600 apiaries, a resource center for urban gardeners, and an organic farm dedicated to raising awareness on sustainable food. The city has planted fruit trees in various parks, experimented with the creation of an eco-pasture, and, recently, decided to set aside another 33 hectares of space for urban cultivation.

Toronto: Growing Ethnic Food
Half of all Toronto residents were born outside of Canada, creating ample demand for produce prized in different cultural and ethnic traditions that is estimated to be worth more than $800 million Canadian annually. Many of these can nevertheless still be grown inside the Greater Toronto Area: to that end, the city's Food Strategy team is working on ways to grow such produce locally, stimulating a still largely unexploited market and reducing the environmental and economic impacts of imports.

Toronto: Urban Agriculture
In November 2013 the Toronto city council (please see the figure concerning the city of Toronto) approved a program based on the recommendations contained in the action plan developed by the Toronto Food Policy Council to promote urban agriculture. Its salient points: identifying potential sites to develop urban agriculture initiatives; revising the urban master plan and zoning laws to eliminate barriers to urban agriculture; creating a guide to the cultivation and sale of fresh fruit and produce in Toronto; promoting incentives for the construction of a green

infrastructure tied to urban agriculture; drafting an online map to serve as an urban agriculture inventory; supporting new community gardens; identifying new opportunities for urban agriculture; and establishing local partnerships.

Authority for the implementation of the program was entrusted to an interagency committee under the municipal administration created specifically for this purpose, which is also charged with monitoring its progress and publishing an annual report to present to the city council for public discussion and comment.

Shanghai: A Greenbelt for Urban Agriculture

The city of Shanghai has several decades of experience with urban agriculture. Food production within city limits has been planned and managed since 1950, and since 1980 the city has aspired to self-sufficiency and maximization of agricultural land in lockstep with the growth of the urban footprint. The size of many urban areas in Asia is a significant factor: Shanghai has a population of 24 million people, and extends over a radius of some 6,000 square kilometers. It is thus not strictly comparable with the vast majority of cities characterized by a dense urban nucleus and more spacious periphery.

Because of rapid urban expansion, levels of self-sufficiency have risen only slowly, but urban agriculture continues to be a priority for city planners: the administration manages 300,000 hectares of land for food cultivation and more than 800,000 residents are actively engaged full-time in agricultural work. Since the dawn of the new millennium, the government of Shanghai has redoubled its efforts to safeguard the city's food autonomy, increasing controls over local production and distribution and regulating the use of urban and periurban agricultural land. This has created a virtuous cycle of agricultural investment in the city,

which has grown by five times over the last ten years, helping combat deterioration in agricultural spaces and their economy. Currently Shanghai produces more than 55% of its produce and 90% of its green-leaf vegetables, and, according to the municipal administration, its production of food is on the upswing.

Milan: Organization of Urban Agriculture and Horticulture

In the city of Milan there are hundreds of areas dedicated to urban agriculture: in addition to those set aside for home consumption, residents have for years experimented with various forms of social gardening, including various forms of shared or community gardens, involving thousands of people and covering approximately 50 hectares of cultivated land. Interest in these places has pushed the city to map and classify them, and to announce a competitive application process that grants aspiring horticulturalists a parcel of state-owned land and a series of services to help get them started (soil analysis, training classes, etc.). Urban horticulture compliments traditional agricultural production in Milan, which involves around one hundred farms and a total of 3,000 hectares cultivated within metropolitan limits. Roughly 40% of this land belongs to farms that are part of the *Distretto Agricolo Milanese* [DAM, the Milanese Agricultural District], a consortium of more than 30 farms, a large number of which use city-owned land and facilities and operate according to a District Plan managed by them directly in dialogue with the city.

COMMERCE

London: Logistics and the Local Commercial Marketplace
The city of London (please see the figure concerning the city of London) is promoting high-quality local food through innovative changes in logistics at the regional level. For the definition of criteria for local and sustainable procurement, the city engaged a London wholesale market along with producers, clients, and other actors from the various phases of the food chain. All these activities were supported by a special fund and linked with a new labeling protocol to allow consumers to identify the regional products involved in this virtuous project.

Bristol: Fair Trade
Midway through the 2000s, the city of Bristol decided to promote the spread of fair trade products as part of a broader program for sustainable consumption. The initiative began with the adoption of the Fairtrade label, which operates worldwide to distinguish products that obey the principles of fair trade (adequate pay, respect for the environment, local production, etc.), and the approval of a resolution that pledges the city to offer Fairtrade products in public offices and include ethical criteria in its procurement practices. This initiative has raised awareness regarding sustainability and ethical issues surrounding food systems, including produce grown in the region. In 2010, Bristol released a Food Charter containing objectives to make the local food system more resilient and sustainable: a basis for the subsequent constitution of an urban food council and for the development of its food policy.

Milan: Encouraging the Distribution of Healthy Local Food

In Milan there are 11 farmers markets that are open once or twice weekly, along with around a hundred stores dedicated to organic foods and a dozen or so shops that are strictly fair trade. Then there are the many bars and restaurants that serve organic and local, which, though difficult to track in terms of their number, clearly constitute a phenomenon on the rise. To accommodate the growth in these sales channels and the increase in demand for healthy local products, SoGeMi, the city agency that manages all the markets in the city and supplies 10% of all the produce sold in markets throughout Italy, has begun a project to certify some of the foods that move through these channels by creating a distribution platform, monitoring system, and other services exclusively for quality local products, so that they may be more easily distributed to stores and markets.

BUSINESS AND FINANCE

France: Institutions' Role in the Management of Agricultural Land

In France, there is a national land management policy founded on a network of agencies called SAFER (*Sociétés d'aménagement foncier et d'établissement rural*), which operate at the regional level to monitor the agricultural land market and promote farming as part of local economies. The SAFER are not explicitly dedicated to urbanized areas, but they are an important instrument for their work on land values, among other issues, and their support for the creation of new agricultural enterprises.

These aspects are particularly important in periurban contexts, which are constantly subject to the pressures of urbanization, and as a result suffer significantly from variations in land pric-

es, changes in fiscal regimes, and the mobility of finance capital. In this sense, the SAFER are an interesting example of a systematic approach to addressing the impacts of the urban world upon the rural. Nationally, this network of agencies intervenes on various financial issues that might impact agricultural production: monitoring and stabilizing land prices, procuring vacant or underutilized land, acting as institutional intermediary in sales and rentals, supporting rural development projects and programs to protect the environment, and much more.

This type of intervention plays a particularly valuable role in cases where land is destined for expropriation or is situated in areas undergoing major transformations following the completion of large developments or infrastructural projects. Finally, the combination of fiscal levers, targeted financing, and relevant policy measures encourages multifunctional rural enterprise, which is particularly important in periurban contexts, especially when allocated to small growers or activities tied to cities.

Milan: Ecosystems of Businesses for the City

The relationship between finance and urban food systems also plays out through the creation of an business ecosystem that can contribute to innovation in the system itself by providing innovative services or generating new products across all phases of the food cycle. This is the case, for example, with Alimenta2talent, a project co-financed by the City of Milan and managed by the Fondazione Parco Tecnologico Padano, in association with the University of Milan and other local and regional institutions, that seeks to encourage the creation of new businesses in the agro-food sector or life sciences, and support new businesses in the food sector with two urban business incuba-

tors. Similar approaches have marked the fundraising efforts of nonprofits (such as the *Cena dell'amicizia* ["Friendship Dinner"] and the *Istituto italiano della donazione* [Italian Donation Institute]) and by business accelerators sponsored by universities in conjunction with private foundations. The Fondazione Cariplo, the largest bank-based philanthropic foundation in Italy, funds hundreds of projects tied both to the creation of innovative new food enterprises as well as the development of nonprofits and networks of individuals working in the local food industry around Milan, promoting initiatives in the fields of education, the economy, environmental protection and job creation for the less fortunate.

STUDYING AND ASSESSING CITIES' FOOD SYSTEMS

Beginning in the 1990s, many cities completed studies and assessments of their food systems as part of their urban food policy. Most of these studies were undertaken in cities and metropolitan areas throughout North America, while in Europe only a few parts of England and Northern Europe produced similar reports.
These studies vary widely: many contain purely qualitative descriptions, while others have taken a statistical approach, and a significant percentage of them were developed on the heels of preliminary public debate to identify which issues to analyze and the appropriate tools to investigate them.
In the United States and Canada these studies and assessments were frequently produced through systematic analysis of pre-existing data and indicators compiled by other agencies, whether as part of a census or other sector-wide data. In these cases, cit-

ies were more likely to describe their food system in terms of its various constituent components: production, processing, distribution, retail, consumption, waste. Some were produced using whole databases of information that could be compared with the food system and even, occasionally, georeferenced.

It is interesting to note that not all of these studies and assessments were part of an explicit process designed to outline a food policy or strategy. Whether or not such a process was in place, these reports frequently include a series of final recommendations for the improvement of certain components of the food system.

The assessment for the city of Milan was completed in 2015 by EStà – Economia e Sostenibilità (the authors of this book), and summarized in *Le Dieci Questioni della Food Policy di Milano* [*Ten Issues for Milan's Food Policy*].

EXAMPLES OF STUDIES AND ASSESSMENTS OF URBAN FOOD SYSTEMS

The following is a partial list of reports compiled by different cities in recent years to study and assess urban food systems.

- Connecticut, *Community Food Security in Connecticut*, 2005.
- San Francisco, *San Francisco Food System Assessment*, 2005.
- Vancouver, *Food System Assessment*, 2005.
- Oakland, *Oakland Food System Assessment*, 2006.
- Seattle, *Seattle Food System Enhancement Project*, 2007.
- Baltimore, *Baltimore Food Assessment*, 2009.
- Vancouver, *Community Food System Assessment: A Companion Tool for the Guide*, 2009.
- San Diego, *San Diego Country Food System Assessment*, 2010.

- Cabarrus County, *North Carolina Food System Assessment*, 2011.
- New York, *Regional Food System Assessment for South Central New York*, 2011.
- Philadelphia, *Greater Philadelphia's Food System Plan*, 2011.
- Bristol, *Who Feeds Bristol?*, 2011
- Amsterdam, *Deliciously Sustainable*, 2012.
- Calgary, *A Food System Assessment and Action Plan for Calgary*, 2012.
- Atlanta, *Food System Analysis City of Atlanta*, 2013.
- Milano, *Le Dieci Questioni della Food Policy di Milano*, EStà – Economia e Sostenibilità, 2015

In the years following the establishment of the first generation of urban food policies and related instruments for assessment and analysis – beginning especially in the 2000s – such reports were increasingly accompanied by manuals to propose standards and methodologies for study and assessment.

These manuals primarily came out of the United States and Canada, although a few methodological surveys were also put out by international organizations, research centers, universities, and NGOs working in the global South. In the majority of cases, however, methodological standardization emerged from the Anglophone world, associated with a template based on the identification of objectives, analysis of relevant phenomena, and monitoring of progress toward declared goals.

Methodological reports present a different degree of detail, tied to the need to create knowledge for policymakers that can also be measured and communicated to the public.

Several elements can be found in a majority of these manuals on the study of urban food systems.

- Every guide suggests that the food system assessment be initiated with public consultation or participatory processes to define in advance both the areas to study and, subsequently, the actions recommended to address any identified issues.
- Many methodological texts explain their approaches by referring to case studies rather than sets of indicators or other analytical standards.
- *Constructing the actor* that will undertake the study is considered a fundamental phase of the process and, at times, this work of construction is explicitly defined as a goal of the process itself. This actor, frequently, will also later be charged with planning and monitoring urban food policy.

In this panorama, two of the most widely accredited and established guides are those by the United States Department of Agriculture (USDA), the *Community Food Security Assessment Toolkit*, and the Community Food Security Coalition, *What's Cooking in Your Food System?* Both guides were published in 2002, and outline the key components, actors to involve, and primary indicators for an assessment of a food system. Both guides include a section on the engagement of city actors, a topic that is generally covered by the broad literature on participatory public decision-making. The two guides were produced by the two principal, complementary types of actors involved in the study and assessment of urban food systems. The first was released by a cabinet-level ministry, which is primarily interested in connecting experiences at the local level to a national system for measurement, oversight, and direction that would not be possible with a simple "top-down" approach.

The second is more explicitly designed to strengthen and empower networks of local actors working on a community lev-

el that are interested in promoting and explaining the effects of their activities in the public sphere.

By way of example, here is a brief annotated list of several of the most accredited and established methods from North America.

United States Department of Agriculture, *Community Food Security Assessment Toolkit* **(Washington, DC: 2002)**
The USDA developed this toolkit, the first of its kind on a national scale, to provide support for American communities undertaking study and assessment of their food systems. It lists all the fundamental tools necessary to complete a study of a local food system, each of which is accompanied by a series of indicators for analysis. The primary elements considered include: the community's socio-economic profile, the food resources available to the community, the food security of local households, the accessibility of food resources, the availability and affordability of food in the community, and the local resources for food production.

The publication includes appendices with lists of analytical instruments and guidelines for discussion with community actors.

Community Food Security Coalition, *What's Cooking in Your Food System?* **(Venice, CA: 2002)**
The Community Food Security Coalition is a group of more than 300 NGOs in the United States that developed this guide to help communities develop of a local food system assessment. The guide contains a description of the key elements for investigation, a set of indicators to monitor, and a list of stakeholders to engage and criteria for their involvement. It also includes a series of case studies that illustrate various potential ways to undertake an assessment.

FamilyCook Productions, *School Community Food Assessment* (New York, NY: 2006)

In 2006, the American NGO FamilyCook, long active in school food issues, distributed this guide to help evaluate local schools' food programs. The guide describes the assessment process that was applied within the New York City school system, and outlines a series of paradigmatic case studies. The guide also relays guidelines for the management of dialogue with various stakeholders.

American Planning Association, *Planners' Guide to Food Planning* (Washington, DC: 2008)

This manual, produced by the American Planning Association, is designed primarily for the group's members to describe how to integrate food issues into planning policies on the urban and regional level. It contains an ample description of the effects produced by food policies, and local policies and actions on the world of food more generally. It also contains a series of case studies that describe different approaches to the intersection of food and urban planning in various U.S. cities.

Provincial Health Services Authority, *Community Food Assessment Guide* (Vancouver, BC: 2008)

This Canadian manual was produced by the government health agency in Vancouver, and examines the key elements in an urban food system assessment, beginning with an analysis of the system's resources and critical needs, indicating stakeholders to engage and ways to address the community. The guide is designed to show the importance of a healthy and sustainable food system, and to that end it points out the usefulness of a food system assessment as a basis for shared public decision-mak-

ing. In addition, the methodological element of the report contributes to the definition of a general framework for actions to change the food system, defining all phases of the process. The guide concludes with a series of indicators to monitor within the community.

University of Michigan, *Building a Community-Based Sustainable Food System* (Ann Arbor, MI: 2009)

In 2009, the Department of Urban and Regional Planning at the University of Michigan produced a guide composed of a series of case studies related to local and urban food systems. The text describes the purposes and functions of a food system assessment, with a particular focus on the role of the community, emphasizing how the size of a region is related to its food production and local economic development.

Community Food Security Coalition, *Whole Measures for Community Food Systems* (Portland, OR: 2009)

The Community Food Security Coalition produced this report, updating its earlier publication from 2002. The guide delves more deeply into the topic of indicators tied to social equality, agricultural resources, residents' health, the ecosystem, and the local economy.

Southern SARE, *Community Based Food System Assessment and Planning* (Richmond, VA: 2011)

This methodological guide was produced by a research group engaged in the promotion of sustainable agriculture (SARE: Sustainable Agriculture Research and Education), and is aimed primarily at facilitating participatory processes, providing recommendations on how to create an assessment of the intangi-

ble social capital of a community based on themes related to food. The guide describes this capital as a product of the union of the following elements: nature, society, economy, policy, population, culture, finance, and the built environment. At the end of the study it indicates how to develop a community action plan.

LiveWell, *Colorado Food Assessment Framework* (Denver, CO: 2012)

This methodology was created by the NGO LiveWell, which works to combat obesity in Colorado. The report defines the fundamental steps for the production of an assessment, a protocol that has been applied in various counties throughout the state of Colorado.

American Planning Association, *Planning for Food Access and Community-Based Food Systems* (Washington, DC: 2012)

This report updates the American Planning Association's previous 2008 guide, and is again aimed primarily at planners. Compared to the first document, this report places more attention on the problem of food deserts, urban areas where fresh food (or in many cases, any food at all) can be nearly impossible to find). Similar to its predecessor, the guide outlines a series of indicators to monitor and describes several case studies where its methods have been successfully applied.

3. GUIDELINES FOR GOVERNANCE OF URBAN FOOD SYSTEMS IN SUSTAINABLE CITIES
By Andrea Calori

WHAT WE KNOW AND WHAT WE'VE LEARNED

This section of the book is dedicated to summarizing the principal lessons learned from our experiences in the field and a survey of approximately one hundred examples of urban food policies and strategies developed in various parts of the world. Although we maintain an openly global approach, the more in-depth descriptions laid out in the preceding pages primarily regard cases from Europe and North America. This choice was determined by our intention to focus more closely on cities that are "mature" in terms of their development, not only physically but also institutionally and socio-economically. Our goal has been to demonstrate how basic food needs can and must be linked with urban quality of life and urban innovation in many different respects, without limiting the utility of urban food policies solely to the construction of the basic conditions necessary for food security. As previously mentioned, the phrase *lessons learned* is not meant purely in a descriptive-analytic sense, nor in terms of the construction of a method: the scholarly literature is rich with case

studies of urban food policies, just as institutions at every level – from local entities to international organizations – have produced a wide range of studies on more or less complex examples of real-world experiences. The goal of this book, then, is to provide knowledge for decision makers and those working in the field who wish to begin the process or further refine their methods.

The first section of this volume already laid out the various reasons to promote an urban food policy and the extreme variety of possible thematic inflections they may take, which makes defining a uniform method for their creation rather difficult. The selection of examples outlined in the second section sought to demonstrate in comparative fashion the difference between single-issue policies and a more holistic approach both in terms of content and process, emphasizing the great diversity of forms that an urban food policy can assume.

This last aspect concerning the distinction between single issue policies and holistic approaches is critical for the aims of this volume, which seeks to suggest a link between overarching strategic questions with multiple implications for models of development, on the one hand, and the concrete materiality of local experiences, with all their limitations and contingencies, on the other. To bridge this gap between the scale of these challenges and the materiality of their contexts, the various keys integrating themes, actors, and instruments are in fact crucial to move beyond pilot programs, single issue initiatives, or efforts to merely contain problems toward projects that demonstrate a greater capacity to produce structural adjustments over the long term. In this sense one initial indication that stands out, even before embarking on the subject of *lessons learned*, is that the examination, planning, and management of urban food policies must

be undertaken employing criteria, approaches, and instruments already widely established in the many examples of integrated policies or negotiated, *strategic* approaches.

The following pages will outline several constants in the cases studied that constitute the sum of accumulated knowledge and basic ingredients for the construction of urban food policies characterized by a strategic approach to process and content. These elements are designed to be used in a manner similar to that of the Ten Issues in Milan. They have a heuristic, or "hands-on" value, and are meant to be put into practice: knowledge accumulated in the design of policy, rather than a method to follow or instruments to apply.

What is more interesting is to explain how governance and the management of planning, approval, and implementation of policy can make the adoption of innovative content possible, either through direct public action or by creating conditions in which societal and economic stakeholders can operate strategically in the public interest, within the natural limits of every individual case.

FOOD AS URBAN INFRASTRUCTURE

Reading the reports produced by different cities that have adopted a general food strategy reveals a concept of food that we might define in terms of "urban infrastructure," on a par with social services, public transportation, health care, education, or waste and water management – all policy areas generally left to local authorities. This concept carries with it certain implications in terms of our understanding of needs, the

hierarchy of priorities on the urban agenda, and the various processes of legitimation that occur while defining, planning, and implementing policy.

A first step to define a general food strategy as an important element in a city's sustainability and resilience is to make explicit the idea of food as an *urban issue* that must be addressed in its broadest sense. This is precisely what it means to view food as *urban infrastructure*: it is a fundamental component of a city that is inseparable from citizens' basic rights and needs, individual lifestyles and cultures, the socio-economic structure, and the city's relationship with the surrounding environment.

Understanding food as part of the urban infrastructure and priority on the urban agenda also helps define an initial general policy orientation. For this reason, documents that contain more detailed, "mature" directives for urban food strategies explicitly declare this orientation as one of the fundamental premises informing their argument in favor or the goals and actions to be taken. It is a sort of building block of discourse typical in cases where policy takes shape not in terms of single projects (farmers markets, redistribution of food surpluses, etc.) but rather as an overarching strategy.

Such premises are evident both in cases where there is a report specifically dedicated to a city's general food strategy (as in Bogotá, Bristol, Cape Town, Ghent, Portland, San Francisco, Toronto, etc.), as well as those where these topics are included as part of a broader policy document not strictly dedicated to food issues but clearly informed by a strategic approach. This is the case, for instance, in the strategic plans of cities like Amsterdam or New York (which also released an additional statement declaring its urban food policy), or in plans for long-term sustainability as in Seattle and Copenhagen, or, again, in a number

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of Local Agenda 21 initiatives coming out of Northern Europe (Malmö, Rotterdam, and Stockholm, for example).

This understanding of food as basic urban infrastructure for a sustainable city is bolstered by the fact that many issues related to food increasingly constitute an important driver in various urban policy areas or have a profound impact on other areas not strictly under municipal jurisdiction (transportation policy, for example, or policy on basic components of the environment, regional production, etc.). This view thus supports arguments in favor of defining a framework for action that is as holistic as possible in its vision and its functional connections with an entity's regular policy areas (plans, programs, regulations, projects, etc.). The strategic, holistic nature of approaches that view food as urban infrastructure is particularly evident in plans on a metropolitan or regional scale. In many of these cases, visions of sustainability take shape in closer connection with other structural aspects of socio-economic organization and, in others, with policies regarding biodiversity and environmental quality.
One case of the former is that of Boston, which defined its urban food policy in order to create, over several years, a broader food strategy that involved its surrounding region and bears the obvious hallmarks of a larger socio-economic plan. Another example, yet again, is that of New York (please see the figure concerning the city of New York), which in defining its own city food policy has merged several pre-existing policies at both the borough and city-wide level with other strategic visions that, over time, have been adopted at the state level. It should be noted that, among the more interesting elements of the New York experience, the state adoption of this strategy is oriented particularly toward addressing questions sur-

rounding food distribution and the relationship between urban expansion and cultivation, assessing the impact of the food system on logistical organization and regional and state-wide traffic flows, and promoting agricultural production as a factor in the economic development of areas being encroached upon by urban sprawl.

The link between directives concerning sustainability and metropolitan and regional food policies is also evident in the case of the strategic plan for the Île-de-France region, which explicitly laid out the role of the food system as a fundamental element in creating the structural conditions necessary to maintain and improve open space, in connection with the regional ecological network. It is interesting to note here how this holistic perspective is made explicit not only by stating an intention to push agricultural production in a more ecological direction, but also by explaining the need to reorient the whole food cycle toward greater sustainability through a detailed series of measures like encouraging local farmers markets, supporting sustainable distribution systems, using fiscal tools to emphasize agricultural land uses, and other systematic measures. In this way and on this scale, the concept of food as urban infrastructure has become a key element in policy for greater biodiversity, understood as a regional green infrastructure.

Up to this point we have looked at the idea of food as urban infrastructure in the context of more mature cases where policy is an expression of a wider and more long-term vision. In reality, however, this approach can also be seen in various examples of single sector food policies that explicitly connect these sector actions (or pilot programs) to more general policy horizons that must be developed over the medium and long term, or that are

inherited from other plans and programs, and are not formulated simply as a solution to an individual issue. It is undoubtedly true that statements detailing these horizons can often take on more of a rhetorical character, rather than posit a vision that takes concrete shape through planning and implementation. It is interesting, however, to note that these single-issue cases are often capable of capturing and communicating a much broader and more strategic concept of public action, which distinguishes them from many other projects that are enacted and proposed as solutions for obvious problems.

INTEGRATION AND SUSTAINABILITY

The preceding pages already introduced the idea of sustainability as an integral part of an approach that sees food as urban infrastructure, which helps explain the fact that a sizeable number of urban food policies are not laid out in documents that define themselves as such, but rather in Local Agenda 21 plans or other sustainability programs at the municipal, metropolitan, or regional level. It is worth emphasizing, however, a few other specific characteristics that emerge from a comparison of international cases addressing the issue of sustainability in urban food policies.

In general these characteristics arise out of three intertwined spheres of action. The first concerns the environmental components of sustainability, and goals to reduce the impacts or influences on basic environmental elements (soil, water, air, energy) generated during the different phases of the urban food cycle. This might include promoting various forms of urban agriculture and horticulture as part of open space policies, for exam-

ple, or adopting ecological farmingal criteria for urban agriculture, reducing plastics and food packaging, regulating or restricting water usage, capping emissions of carbon dioxide produced during phases of the food cycle, etc.

The second sphere includes changing food habits, consumption patterns, and the relationship between food and lifestyle more generally. Objectives here are connected to the first sphere in that they are described in terms of the contribution that every individual can make to foster sustainable change in their city by altering its food economy and its impact on the environment. This is particularly evident in cases from Europe, where local social and solidarity economies and sustainability policy are often connected to the influx of European Union policies for environmental certification of products and the wide range of EU projects based on the concept of buying and consuming sustainably (recyclable food packaging, buying green, rationing water use, etc.).

Changing lifestyles and consumption habits as a part of sustainable change in food systems can take many different shapes in different parts of the world. The concept of *sustainable diets* is one of the more significant developments of recent decades, uniting the longstanding objective of combating obesity and diseases or illnesses linked to poor nutrition with policies that encourage the production and sale of good food, usually understood to mean organic and local products – thus combining quality of life considerations with the quality of the environment, and the reduction of impacts upon it (see Bristol, Frankfurt, Ghent, New Orleans, Sidney, and Vancouver, for example).

The same approach increasingly informs the projects and policies of the FAO and other international organizations working to ensure sustainable diets for the urban populations of the

global South, combining actions to encourage consumption of adequate amounts of fresh, nutritious food with policies to support local producers and lower environmental impacts (Addis Abeba, Dakar, Johannesburg, Medellín, etc.).

In all these variations on the linkage between lifestyle and sustainable food systems, the fundamental contributions provided by the food movements of South America cannot be overlooked, for they were the first to conceptualize and put into practice the large-scale adoption of eco-farming principles and to view protecting the earth as a foundation for the governance of food systems and even as a building block for social cohesion.

The third, and most complex, manner of viewing food as urban infrastructure through the lens of sustainability revolves around social cohesion and economic development. In this sphere, transforming food systems toward greater sustainability is seen as a way to build new forms of social and economic organization that link food systems to cities in a new and different way, becoming an overtly progressive force.

These concepts apply many of the issues traditionally associated with rural development to the urban environment: the multifunctionality of agricultural activities, maintenance and creation of jobs in the sector, generation of non-monetary value, preservation of a culture of production, development of forms of social solidarity, etc.

From this perspective, promoting urban agriculture and horticulture is not viewed solely in terms of the improvement or maintenance of open or underutilized space, for example, but rather as a motor driving local development in a more robust and self-sustaining direction, where the localization of productive systems obeys the logic of an innovative rethinking of the shape and organization of urban space. A good number of cases

in the global South have just this goal in mind, including Rosario in Argentina, Addis Abeba in Ethiopia, and several Brazilian cities (Belo Horizonte, Curitiba, etc.), all of whom link urban food production to other objectives in terms of welfare, labor creation, waste recycling, and other activities that combine protecting the urban environment with economic development and quality of life issues.

In proposing this tripartite schema for action we must obviously keep in mind the wide margin for integration of its various parts. For example, many cities have programs that include different types of sustainable diets in government-run dining facilities (school cafeterias, hospitals, barracks, senior centers, public offices). In most instances, the primary focus is on changing eating habits by providing healthier food, but in many cases sustainability is integrated in a broader sense, by placing the emphasis on government procurement as a driver for collective purchasing practices that can in and of itself be an element of change in food systems. In this perspective, government-run facilities are an actor that can use changes in procurement decisions to purchase large quantities of food that must be produced, processed, and distributed under specific conditions.

This is the case in several Brazilian cities (most notably the pioneering example of Curitiba, which has long played a leading role in the region) that are bound by a federal law requiring 75% of food in school cafeterias to be provided by local organic producers, with a priority on food from small farms. This law has been implemented in many Brazilian cities by integrating it with other policy components like urban and regional food bank systems, complementary currency networks, fiscal policy, and local welfare regimes. In this way, they have created a more

robust packet of measures to reshape urban food systems, incorporating otherwise intangible environmental and social values into the economic system.

URBAN FOOD NEEDS

Urban food policies view food systems from an urban perspective, of course, and the objectives of these policies consist largely of redirecting actions, standards, plans, and programs to respond to stimuli and issues related to food. In this dynamic process between interpretation and reorientation, an important functions consists precisely of the ability to see the urban dimension of food systems and interpret signs of needs as well as how to address them. Food is intertwined with all of an urban society's requirements, at times constituting a specific concern in its own right, and at others acting as a symptom of deeper and more complex material or immaterial needs.

Requests for food from food banks, soup kitchens, or other structures offering social services, for example, are a symptom of more deeply and widely rooted conditions of poverty or distress. Similarly, many collective activities that revolve around food (community gardens, ethical purchasing groups, etc.) signal more profound needs for sociability, sharing, and the rebuilding of social ties that find limited or absent opportunities for expression in contemporary cities.

Here, once again, it becomes evident how food may serve as a strategic perspective on urban development, capturing needs tied to material living conditions, cultural alternatives, lifestyles, or structural aspects of socio-economic life and all its related services. And this is why, in the dialectic between the perception

of needs and reorientation of policy, it is important to possess the ability to see these interconnections: both to understand their specificities, and to identify ways to address them that are not one size fits all, but rather deal with the peculiarities of each context and draw upon on local resources.

Certain basic needs are neither new nor unique to urban life: the difficulty in obtaining food due to poverty is one of the most obvious examples. Nevertheless, even these needs merit continual reevaluation to take into account changes in lifestyle, urban organization, and the specific nature of the food system in each particular context.

As an example, one need only think of phenomena not restricted solely to large cities that clearly illustrate problems of access to food in places not afflicted by poverty that nevertheless still suffer from insufficient supply – and thus from a poverty of food – because of changes in the organization of the food system. In mountain valleys, for instance, or many other marginalized rural areas, the closure of markets and retail chains can help accelerate a spiral of decline and depopulation in places that are situated far from existing food distribution networks, particularly if there is not enough local production to satisfy residents' basic needs. In what might seem to be absurd, a similar phenomena also takes place in many mid-sized American cities on the great Midwestern plains. In these areas of the so-called "Corn Belt," grave problems of access to fresh food have long been evident, attributable not to geographic marginality or intrinsic poverty so much as the combination of intense pressure to produce almost exclusively food *commodities* through intensive monoculture and the widespread distribution of processed and packaged food as a result of the concentration of distribution channels among the large commercial chains. This cluster

of factors creates conditions in which it is literally impossible to find fresh food in broad swaths of the country, with particular gravity for these regions' cities.

These examples demonstrate how the rereading of *basic needs* is also bound up with urban systems' resilience in the face of organizational shifts in the food system.

The question of urban food needs can also be seen in connection with many forms of social aggregation that, in cities throughout the world, combine community ties with new forms of work related to food. This is the case, for instance, in community gardens, farmers markets, cooperative farms, community kitchens, and the various forms of community shared management of land and agriculture: CSAs, in the Anglophone world; ASC in Canada; AMAP in France and the Francophone countries; Teikei in Japan; and GAS in Italy, to cite but a few of the more well-known examples.

These socio-economic entities are popular around the world, displaying strong growth and a capacity for adaptation that testify to something that goes well beyond whatever perception one might have about urban cultural elites. If this phenomenon exists primarily in places with average or high rates of school enrollment and per capita income, in reality these examples share similarities with thousands of forms of flexible work, with a different concept of work-life balance and a sense of belonging to a community that blends care for place and care for others. In short, these social dynamics are manifestations of new ways of thinking about work and the economy that are particularly popular among the young and those most affected by labor instability and the lack of an adequate social safety net – or, on the other end of the spectrum, in places where new urban populations take root in new and non-traditional ways.

It is no coincidence that these alternative socio-economic forms are growing fastest in cities undergoing massive changes in their social and economic structure (such as industrial decline, significant demographic or migratory shifts, etc.). This is the case in Bristol, for instance, a city that has re-emerged after the collapse of its port and industrial base, which began in the postwar years and dragged on for decades; or Portland, with its 1990s high-tech boom that followed a long period of decline in its traditional economy based on the logging industry. The most well-known case of all may be that of Detroit: a city that virtually disintegrated after having been the global capital of the automobile industry, where parts of the city have finally begun to show signs of physical and social renewal associated in part with new jobs created by urban agriculture, generating a substantial urban food movement, particularly in predominantly African-American communities and among the young.

In these places, urban food policies are built around these "communal" themes, demonstrating the existence of a not ephemeral public interest in these social and economic phenomena and the needs they serve. This interest can also been seen in the food policies of other cities that have lived through or continue to live through similar transformative dynamics, like Philadelphia, Pittsburgh, and Bilbao, or the food strategies of rapidly expanding cities where social and economic fragility is tied to the immigration of low-income rural populations (such as Bogotá, Lima, or Nairobi, etc.).

The case of the Dutch city of Almere is completely different, yet conceptually rather similar for its policy efforts to attract residents drawn to its quality of life based largely on the opportunity to participate in various forms of *Do It Yourself Urbanism* through the cultivation of large areas of the city and even

through an expansive series of new developments, the largest and most well-known among them being the aptly named Agromere. These new neighborhoods are planned specifically to accommodate the different phases of the food cycle with an eye toward social and environmental multifunctionality: from community agriculture to schools integrated with farms, new forms of semi-collective management of urban-rural spaces, local development, direct sales, local production of compost from household waste, etc.

These are several of the reasons why it is a great error to reduce the social and economic dynamics that surround food in urban contexts to the standard spheres of agricultural policy, much less traditional agriculture or the assessment parameters used for mainstream production. The nature of these phenomena is different, from the needs that generated them, their stated objectives, their rationales, and even the actors driving them. It is not a coincidence that in many cities the translation of these social dynamics and accompanying needs occurs primarily in terms of social programs, labor policy, or plans aimed at the promotion of quality of life and the urban environment – making plain, yet again, the idea that urban food systems possess an intrinsic multifunctionality strongly bound to labor, sociability, and the quality of the urban environment, and not only to production in the strictest sense.

FROM NEEDS TO POLICIES

A significant percentage of urban food policies are based on the support and impetus from movements that come from the "bottom up," or respond to needs that have not yet been addressed

by public policy, or find ways of responding that incorporate other actors and values, or are created closer to the ground from within the communities in need themselves. All these "communal" forms cited in the preceding section can be described in this way, as can many initiatives that work to redistribute food surpluses to the less fortunate.

In general, the various forms of social and economic organization created from "bottom up" processes assume greater shape and substance when they are welcomed into the public fold and are perceived as possessing the potential to be transformed into the object of policy. This is one of the reasons why in countries like Italy, for example, solidarity partnerships between producers and consumers (mostly the GAS, *Gruppi di Acquisto Solidale*) have historically played a significant role in introducing new food cultures into urban areas through public debate, fairs, media, and literature, as well as various associations and movements. This despite the fact that they have grown organizationally and economically at a much slower rate than their cultural relevance might suggest. Elsewhere, similar entities like the French AMAP, American CSAs, or German *Solidarische Landwirtschaften* have developed quite differently precisely because they have been able to create reciprocally beneficial opportunities with other micro-economies and institutions on various levels, beginning with municipal governments.

The question of transitioning from needs to policies through "bottom up" initiatives has to do above all with the ability to withstand *scaling up*, the shift from necessarily micro-level experiences (like all community programs) to something much larger, capable of connecting with multiple constituencies as well as differentiate between the many stakeholders involved and their various roles. Secondly, what matters more from the perspec-

tive of policy effectiveness is the ability to understand which of these social initiatives can respond to the relevant needs and to what degree they are innovative either in terms of content or method. The ability to identify the unique elements of these initiatives and, subsequently, to translate them into the language and codes of public policy, constitutes an area of great interest for urban food policies in terms of their potential efficacy, precisely because their potential field of action is frequently on the margins of local policymakers' traditional agenda.

Here, too, the importance of the ability to interpret and translate community initiatives into policy can be seen in cases where urban agriculture is not restricted to the cultivation of small leftover plots of land but is part of the engineering of more complex local food systems on a city-wide or metropolitan level. The Just Food network in New York is one example, as is the *Unser Land* brand in the Munich metropolitan area in Bavaria, or the *Red de Agricultura Urbana* in Rosario, Argentina, the Japanese Seikatsu Club (which also unites various cities and regions), the concerted land management efforts of the Grenoble metropolitan region, or the contributions of the Island Heritage Foodservice Co-Op to the urban food policy of the Vancouver area. Though emerging from very diverse circumstances, the food systems that came out of these experiences touch upon all phases of the food cycle, from production to consumption and the creation of compost, through processing, distribution, and retail. What is even more interesting is that, to different degrees, services developed within each of these phases that were not always previously available on the market: product certification, training classes, community welfare, local credit and financing, use of renewable energy, cheap technologies for the reduction of environmental impacts, and many others.

A breakdown of those involved reveals far more than the simple inclusion of traditional growers and producers, including others from across all phases of the system with different degrees of engagement: from full-time professionals to part-time employees, flexible labor, volunteers and semi-volunteers. The panorama of stakeholders involved in this system is similarly broad and variegated: individual citizens, nonprofits, social networks, philanthropic foundations, cooperatives, storeowners, supermarket chains, development agencies, and others. These cases always display a great awareness of these issues' complexity, which is often declared and described in the documentation they produce: genuine "food policies from below."

Considering all this, it is clear that it would be incorrect to classify these examples merely as urban agriculture, even if they are based upon the local production and consumption of food. They can't really even be described as production chains for local consumption, because this is the articulation of a system that, starting from the need or desire to produce and consume locally, creates complex socio-economic structures capable of generating economies of scale, producing effects well beyond those of mere production chains.

The principal conclusion we might draw from all this is that these entities are born of the fact that the idea of producing and consuming locally answers and fulfills distinct unexpressed needs that touch a wide range of actors. These are needs and demands that are not always or not yet recognized publicly, not yet addressed by policy, and that in all likelihood prompt responses "from below" precisely because there are no existing measures to deal with them adequately.

And here these complex instances of urban food systems built "from below" reveal how important it is to be able to identify

and address the specificities of each case and translate them into policy. As the preceding pages have shown, the question is how best to empower initiatives that, regardless of their size, respond to new and widely shared needs by creating self-sustaining organizations, and through these organizations offer innovative solutions to other issues.

More important still, however, is the ability of more traditional institutional and market actors to grasp the uniqueness of these entities and the ways in which they address needs and provide responses to them. This capacity holds the key to innovation in the form and content of public action: by eliciting the issues and needs not yet met by policy, and adopting at an institutional level the innovative content and processes that come from the most effective of these bottom-up initiatives.

In short, the best way to think about sustainable responses to urban food problems is by empowering the social bases that best represent sustainable principles, approaches, and solutions.

ARTICULATING SYSTEMIC KNOWLEDGE

In many urban food policies the dialectic between the analysis of needs and articulation of responses is formalized in part through tools for study and oversight outlined in reports, public debate, and participatory evaluation and verification. The world of instruments for the study and assessment of food systems is robust, and many already exist in the toolkit of various institutions: single sector analyses, like the quantification of agricultural production, trends in retail sales, or data on childhood obesity or schoolchildren's diets, are quite common. Less well established is the ability to describe their *systemic* aspects, that

is the *correlation* between parts of the cycle and, especially, the relationship between the cycle and its context (environmental components, demography, health care, the surrounding region, biodiversity, financial aspects, labor conditions, etc.).

What is the impact of each element of the food system on the air, water, and soil? What is a given city's capacity for food self-sufficiency? What is the relationship between the quality of food and quality of life, or the health and well being of a city's population? What are the possible scenarios for sustainable systemic improvement through technological innovations in the organization of food systems?

These are just some of the basic questions useful to understand the overarching issues in an urban food system and to provide knowledge for public decision making as well as that of economic stakeholders.

One peculiarity of these tools for analysis and assessment is their direct link with policy: that is, the fact that they are designed to provide knowledge for public use in making decisions and designing programs. This is not academic research, or reports meant only for technical experts, but documents also created with an eye towards public communication.

Many urban food policies and strategies also include an analytic report that, in some cases, explicitly constitutes the first step of a process leading to the subsequent publication of other, more narrowly focused documents on visions, objectives, or strategies. In other cases the analytic report is the only document that is published as a stand-alone report, while planning and project elements are integrated into the everyday instruments of the policymaking institution, and are not accompanied by a separate, specific document.

In still other cases, assessments constitute the first section of a

policy document itself: whether configured as a vision statement to state principles and objectives, or as a report on specific goals, projects, and directives for implementation.

Excluding traditional single sector analyses that are part of the ordinary duties of many institutions, in the majority of cases urban food system assessments focus on a limited number of themes, even if there is no shortage of reports that are based on a more general vision of social, economic, and environmental implications of cities' food systems.

The following are among the more well known examples of reports containing a broad overview of urban food systems. This is a brief and by no means comprehensive summary, that does not claim to present best practices, but rather indicates the primary types of analysis and assessment that most clearly outline the uses and measurements of outcomes in various phases in the construction of an urban food policy.

A first type of analysis includes those reports with sections dedicated to a city's food system in more general summaries of urban conditions overall, as in the case of Amsterdam, Ho Chi Minh, and New York, cases where food is but one element in the city's strategic plan.

In other cases the urban food system is the explicit focus of the report, and is analyzed from a broader perspective, defined in terms of distinct themes. This is the case in Austin, Bristol, Cape Town, Jakarta, London, New York, San Francisco, Seattle, and Toronto, for instance. Usually, this type of integrated, multi-thematic report is produced by cities that already possess a general food strategy or are in the process of creating one. Such is the case in Bristol (please see the figure concerning the cities of Bristol), for example, where the *Who Feeds Bristol?* report became a tool helping establish a timetable to create the city's food policy.

A third set of cases concerns reports aimed primarily at identifying priorities for immediate action, in which the focus is not so much (or not only) on data, but above all on making arguments for decision making or shaping dialogue supported by a selection of data and indicators.

This is the case in Addis Abeba, Chicago, Houston, Lima, Los Angeles, New Orleans, and Philadelphia. Frequently in this type of document, the explicit goal is to foster communication, and the analytical report contains a section of recommendations or guidelines for discussion or action and, sometimes, even a non-technical summary made available exclusively for different types of public.

Then there are reports that, while beginning with a specific theme in mind, develop their analysis over a broader horizon to identify the sources of the given problem. This is evident, for instance, in the cases of Johannesburg, Hanoi, and Karachi, where the treatment of emergencies or basic food insecurity was investigated in relationship to more general urban social and/or economic conditions. In these cases, as well, the presentation of the report's argument is instructive, suggesting a broader interpretation of the issues investigated, and not merely describing them through data – thus encouraging the comprehension of its more systemic dimensions.

BUILDING SHARED CONSENSUS

The above distinction is illustrative, since the events and rationales prompting a local entity to conduct an assessment or address more systematic issues are not always immediately apparent to an outside observer – just as the decisions and phases

that unfold between an assessment and the actual implementa-
tion of policy are almost never either simple or linear. The re-
construction of all the steps or episodes leading from the study
phase to the building of consensus, decision making, and im-
plementation within each individual case is of course beyond
the scope of this book, and readers would be well advised to
examine the existing literature on each individual example.
Rather, this volume will focus on two aspects in particular. On
one hand, the *argumentative approach* emerges as one of the
primary traits of assessment reports that are characterized by a
more multi-thematic or structural perspective. On the other,
a good many reports of this type are also created through *par-
ticipatory processes* involving residents or *interaction* with ma-
jor stakeholders. In such processes the topics to be studied are
identified through consensus building in preliminary hearings,
the scientific-technical data gathered is integrated with other
forms of knowledge provided by various actors (not just "ex-
perts"), and thus the resulting directives are in some ways al-
ready the fruit of prior negotiation between all the parties in-
volved.
The latter description is particularly characteristic of Anglo-
phone cases, in particular, which are more readily culturally in-
fluenced by interactive and negotiational approaches, but it can
also be seen in examples from the global South undertaken with
the support of international organizations, or technical actors
working on participatory approaches (see Lima and Medellín).
The argumentative and the participatory-interactive are two
complementary approaches that, in reality, help to better situ-
ate the prior distinction between sectoral and thematic or mul-
ti-thematic assessments. Here we will focus on a selection of
studies that explicitly adopt a systematic view of processes to

create integrated or multi-thematic food policies, reflecting our desire to increase awareness of the importance of a multidimensional approach to urban food systems. From a methodological point of view, as well, the examples cited above can help to compare the various themes deemed relevant, as well as the indicators used to describe these themes, and the data used to populate the indicators.

But, entering more deeply into the merit of each case, the use of argumentative and participatory-interactive approaches plays a central role in numerous instances of reports that are more sectoral or thematic in nature. Interaction with local actors *precedes* study, and serves to define the areas in which there is a consensus to enact policy. And it is from this preliminary consensus to act that the subsequent assessment develops, giving it public legitimacy and thus making it more focused and in depth.

In various cases, interaction with key stakeholders and citizen participation also constitutes a research strategy and technique for its material execution. Preliminary interaction makes it possible to undertake or continue dialogue with different actors that can subsequently be developed further during the phases of policy planning and implementation.

All this is to say that the *ways* in which the necessary knowledge is accumulated for the creation of an urban food policy is a decisive factor both with respect to the ability to understand the issues at play, as well as the creation of conditions for effective action. In terms of understanding a given issue, the quality of interaction with stakeholders greatly influences results because it facilitates the observation of the issue from multiple viewpoints. As for efficacy, simply anticipating the involvement of multiple actors creates the conditions for working toward consensus on action: thus the participatory ap-

proach helps establish the conditions for a policy's establishment and effectiveness.

To sum up, there are four primary characteristics common to reports that best capture the complexity of urban food worlds, which are helpful in erecting the architecture of policymaking activities.

The first is, obviously, the existence of a document that accurately depicts the complexity of the urban food system and its relationship with the surrounding area: from the complete food cycle (production, processing, distribution, retail, consumption, waste, and end of life) to the various spheres that interact with it at one or more stages (environment, region, demography, health, related economies, identity and culture, etc.).

The second concerns information on projects and policies already managed by local authorities to promote or participate in an urban food strategy. This serves to demonstrate the state of government engagement in the various stages of the food cycle, describe its actions, evaluate its margins for improvement, and situate it within the strategy to come.

The third focuses on the search for and deployment of actors and pre-existing programs competing to improve the sustainability of the system. The job of this survey is to shed light on the strength of the city's active resources that, independent of activities promoted by the government, can or will contribute to the elaboration of policy objectives and their realization.

The fourth component consists of detailing a system of oversight to ensure processes of verification over time on the themes addressed. In the context of the public sphere, oversight, like the phase of initial study and assessment, should not be thought of as documentation for specialists, but rather as a publicly available report with a solid argumentative and technical-scientif-

ic basis that can inform public dialogue and decision-making. As stated above, these four primary components have taken many different shapes and forms in the cities in question. But in each of them, the adoption of both argumentative and participatory-interactive approaches constitutes a qualifier capable of constructing more comprehensive meaning than a laboratory analysis on the living body of a city could ever hope to have.

THE PUBLIC ACTOR

In the majority of cases the promotion of an urban food strategy occurs under the aegis of an institution that has public decision-making power for a city. Usually this means the local governmental body that holds executive power (municipal, metropolitan, provincial, district level, etc.) and that provides an institutional framework for actions requiring the participation of multiple stakeholders. The existence and role of the local authority should not be taken for granted, however, because in a significant number of cases, there are other actors who promote initiatives with great public impact, effectively mobilizing a large number of actors and generating medium and long-term impacts on the city even while acting outside the institutional framework or at its margins. This type of actor and approach has been the subject of a large literature that focuses, yet again, on their many different varieties of strategic approach to policy. It worth remembering, however, that cases of the latter are especially numerous in cultural contexts where the political dynamics between institutions and social actors are more fluid: typically in North America. Among these, the most famous is the case of Sustainable Seattle, which was born as a nonprofit

that served as a hub for dealing with topics related to sustaina-
bility. Beginning in the 1990s, it played a key role in numerous
initiatives, but it also helped to stimulate and incubate policies
across the city, metropolitan area, and region, and also to pro-
vide long-term oversight, exercising a critical influence over the
development of Seattle's food policy.

Similar instances, focused more explicitly on the urban food
system, include those of the San Francisco Food Alliance and
London Food Link (please see the figures concerning the cities
of San Francisco and London), which are primarily social net-
works that serve as repositories for knowledge and facilitators of
connections, creating space for what might be called a sphere of
non-state public policy, to use a Habermasian definition. In ad-
dition to the development of projects, these actors also work to
create conditions for institutional action, and the dialectic be-
tween them and local authorities is a driver to improve the ef-
ficacy of the authorities themselves. Actors of this type also fre-
quently help in a deliberative capacity, engaging other actors to
address policy arenas and contexts with public approval, thus
also assuming a political character.

Because the dialectic between institutions and organized pub-
lic interest groups is commonly seen in more "mature," estab-
lished urban food strategies, what makes the difference in cases
where the government assumes leadership is clearly the chance
to construct political legitimacy for the tools at the government's
disposal. The latter uses its authority to summon actors, makes
available its resources in manpower, funding, and institution-
al jurisdiction, and uses its planning and coordinating powers
creatively to create new fields for action.

It should be emphasized that the examples that most clearly
demonstrate a strategic capacity to push through large-scale ef-

forts in a particular arena or time frame are those in which poli-
cy or strategy statements do not merely list objectives or actions
under public authority, but rather those which also detail the
actions of other actors who share overall responsibility for the
strategy as a sort of public pact (such as San Francisco, Seattle,
Toronto, or Vancouver). The importance of having an institu-
tional authority drive urban food strategy resides, then, primar-
ily in its role as a guarantor for the public in general but also for
the other actors involved in the city's food system.

The second role that the public authority can assume is to make
available its own instruments to act on several fronts with rel-
ative autonomy and, thus, to use its own resources and pow-
ers to deal with certain issues directly and to act as a flywheel in
other spheres where the possibilities for action are not limited
to the realm of policy.

TECHNICAL ASSISTANCE

In urban food policies technical experts are not simply adviso-
ry or executive figures within administration, but rather they
work as development agents on behalf of the institution or pro-
moting authority, providing technical-methodological support
throughout the process of creating and implementing policy,
or directly managing delegated activities. The early part of the
process leading to the food policy in Bristol, the cases of Lima
and Medellín, as well as those of Calgary, San Francisco, and
Seattle all offer examples of three pivotal roles that such techni-
cal experts can play.

In the case of Bristol (please see the figure concerning the city
of Bristol), the study report that generated the process for de-

vising the city's food policy was preceded by a start-up phase led by socially committed technical experts who worked in connection with societal and institutional stakeholders. Only later was the process formally commissioned by the local authority. In Lima and Medellín the decisive role was played by a foreign foundation with local offices in each of the two cities that furnished the technical support necessary to translate the needs expressed by local authorities into a working program and instruments for implementation.

As mentioned earlier, in San Francisco and Seattle the process of defining the cities' food policies came about in part thanks to the autonomous initiative of local networks of experts. Later special committees were created, placing technical experts from the local administration and outside agencies under a single multidisciplinary structure, creating a technical team that married a broad institutional mandate with a margin for maneuver that ranged from proposal generation to public participation, oversight, project assessment, and direct support for action. In Calgary, this role was played by a city foundation.

These technical-institutional partnerships are common in other policy spheres and draw upon models variously called development agencies, special authorities, or other formulas. The role this type of actor plays most frequently is to facilitate dialogue between experts, public officials, economic stakeholders, representatives from civil society, and the citizenry as a whole, along with other analytical or planning tasks (project development, fundraising, training of local actors, etc.). The most common types of actors in this area include applied research centers, local development agencies, associations with multidisciplinary technical experience, local branches of international organizations, and philanthropic foundations. These bodies also fre-

quently play a role as actors in international debates, not only in terms of the exchange of technical expertise, but also in the definition of national and international institutional agendas on food policy issues.

NEW TASKS AND INSTITUTIONAL ACTORS

Documents that contain directives and policy choices often also include directives assigning a mandate for implementation to various entities. In other cases, it is not the local administration itself that commissions an assessment report nor any policy document. These roles are then frequently assumed by representative bodies created specifically to deal with food issues in a integrated way, in coordination with the institution yet maintaining some margin of autonomy. In the Anglophone countries these are usually called food councils or food boards, but there are other nomenclatures elsewhere. Bodies of this type are common, not just in metropolitan regions but in rural areas interested in local development projects, and around the world there are entities with functions similar to food councils and their equivalents based on concepts of governance in the public interest that are not necessarily inspired by Western influences. Restricting ourselves merely to forms of "food councils" influenced by modern Western forms of government, it is clear that the pioneers of these entities were the Americans, who developed several variants different in their organizational level, the terms of their mandate, and the composition of the entities themselves. The first example of a true food council came from Knoxville, which created its entity in 1982 after studies during the previous years had shown serious inefficiencies in the city's food sys-

tem, which during a period of economic crisis contributed substantially to the population's food insecurity. These studies had also made the argument that food should be considered a basic service akin to water or electricity, and that it should thus be the subject of public discussion and the responsibility of local authorities.

Initially, Knoxville decided to create a special commission to study the problems in the city's food system, drafting a list of recommendations and indicating ways to monitor actions to turn these recommendations into concrete policy. This commission oriented its efforts toward the realm of education and childhood nutrition, promoting programs designed to ensure that students received adequate food, and supplementing nutritional guidelines with a series of projects that went well beyond the provision of healthy meals, such as educational initiatives, school gardens, integrated family subsidies for meals at home, recommendations of retail food products for calorie conscious consumers, even altering several public transportation routes to guarantee that neighborhoods with a high percentage of older and low-income residents would have easier access to supermarkets.

Following on the heels of this commission and its first action plan, in 1981 the municipal government of Knoxville formally established its Food Policy Council to seamlessly continue the commission's work. After this development, considered by many to be a sort of blueprint for municipal food councils throughout North America, several cities developed similar bodies; currently, in the United States and Canada alone there are more than 200 such institutions. Their spread was due mainly to a confluence of progressive ideas that took steam throughout North America in the late 1980s and early 1990s around the concept of healthy food and questions of sustainability, with the corre-

sponding growth in associations and social movements dedicated to these ideas. Many food councils were born from the empowering of social networks created around urban agriculture, local distribution chains, forms of community-based welfare, and other activities and services with ties to the food cycle. The Toronto Food Policy Council (please see the figure concerning the cities of Toronto) is probably the best known body of this type, and constitutes one of the foremost examples of its kind on a global level because it has been in existence since 1991 and has constantly evolved in terms of the activities and representatives it involves, as well as the way it operates and innovates methodologically.

In general, food councils gather people who are in some way linked to the urban food system, and above all create public spaces for discussion, arenas to give voice to those who are either employed or actively involved in different phases for the city's food system. They can include different types of actors (representatives of socio-economic groups, members of civil society, government officials, technical experts, etc.), and are formalized to different degrees depending on their connection with various constituent bodies (city council, trade associations, etc.). There are examples of food councils where members are elected directly by citizens, although in the majority of cases nominations occur through co-optation or direct voting or directives from within each of the components represented on the council itself (such as school boards, neighborhood associations, environmental groups, growers, and so on).

Their composition and the balancing between their various components presents many variations depending upon the place and the problems the council is convened to confront: there are thus instances of councils in which societal forces predominate, and

others where technical or academic representatives prevail. Another important factor that contributes decisively to these councils' composition is linked to the duties it is supposed to perform – such as consultation, deliberation, management, guidance for the city council, board, or mayor, oversight of policy, assessment of projects, execution of specific analyses, media and communications, etc.

Their functional mechanisms usually develop through the accrual of experience (through consultation workshops, visioning meetings with specific groups, council hearings, reinforcement of other existing participatory bodies, etc.) or through regulations formulated in discussion during the construction of policy that are then formalized in a strategic report.

Whatever form and methods these councils assume, their existence is a fundamental component of urban food policies and, in many cases, their creation is indicated as one of the specific objectives of the policymaking process. The reasons why the creation of an urban food council is important as a policy objective has to do with efficiency of process and efficacy of action. Efficiency of process is associated primarily with the anticipation of conflict, from the opening of public dialogue through the preliminary drafting of policy, to draw out the critical issues early on and thus avoid obstacles further down the road. Efficacy of action concerns the inclusion of a larger number of actors in order to better understand the issues at hand, incorporating as many perspectives as possible, and facilitating a sense of joint responsibility on the part of all.

Cases where an urban food council is an explicit policy objective come primarily from those places where a major part of the problem stems from the fact that certain actors or segments of the population do not possess a voice in policy, and their needs

or activities thus exist outside the political process. In such cases the food council becomes not simply an instrument to facilitate dialogue with multiple actors, but also to establish new voices and roles in the urban food system.

In relation to these issues, the development of a global debate over the right to food that has shaped norms and directives at the international level has introduced local actors to the concept of *rightholders*, which sits alongside the 1980s notion of the *stakeholder* – shifting the center of attention from the legitimacy and public recognition of *interests* to that of *rights*, which restores a proper focus on the human individual.

This shift is conceptually important for urban food policy because it further solidifies the bases of the argument to consider food as a priority on the local policy agenda and as a fundamental part of urban infrastructure.

FIGURES ON PARADIGMATIC CASES
By Andrea Magarini

The following pages contain a series of figures that summarize the primary structural elements and provide an overview of processes to define and implement several examples of urban food policies.

The cases selected are drawn exclusively from European and North American cities, along with Melbourne, which though in Australia shares many characteristics in common with metropolitan areas throughout North America. These cities are among the more "mature" examples in terms of the development of their urban food policies, with several years' experience in the management of such initiatives.

The figures show how the primary actions related to the creation of a food policy in each city evolved over time, generally coinciding with the publication of key documents (such as declarations of principles, assessment reports, lists of projects, etc.) or public deliberations on texts to determine a city's policy choices (such as strategy documents, action plans, etc.).

The figures synthesize several of the key recurring phenomena discussed in the third section of the book, which describes certain aspects of governance (public decision-making, the role of technical-scientific actors, and civil society), the geographic scalability of the process, and the drafting of documents to outline the content of policy.

URBAN FOOD POLICIES IN THE WORLD

This figures is a summary of significant experiences
of urban food policies that have been analysed within
Milan Food Policy

HOW SHOULD YOU READ IT?

PROJECTS
Cities that have promoted sectorial events

ASSESSMENT
Cities that have organised initiatives to analyse and evaluate the urban food system

POLICY/STRATEGY
Cities that have triggered integrated policies or general strategies

COUNCIL
Cities that have defined an institutional mandate for a subject with the aim
to support, implement and monitor the effects of urban food initiatives.

Portland ◼◼◼◼

Los Angeles ◼◼◼◼

Vancouver ◼◼◼◼

Seattle ◼◼◼◼

San Francisco ◼◼◼◼

Austin ◼◼◼◼

Toronto ◼◼◼◼

Boston ◼◼◼◼

New York ◼◼◼◼

Chicago ◼◼◼◼

Washington ◼

New Orleans ◼◼◼◼

Houston ◼◼◼

Philadelphia ◼◼◼◼

Medellín ◼◼ ◼

Bogota ◼◼◼

Mexico City ◼

Lima ◼ ◼◼

Caracas ◼

Buenos Aires ◼

Curitiba ◼◼ ◼

Rio De Janeiro ◼

Guatemala City ◼◼

San Paolo ◼◼◼◼

Santiago ◼

Belo Horizonte ◼◼

Paris

Gent

Malmö

London

Basel

Stockholm

Rotterdam

Berlin

Copenhagen

Amsterdam

Frankfurt

Turin

Bristol

Oslo

Rome

Madrid

Addis Abeba

Istanbul

Barcelona

Nairobi

Tel Aviv

Lagos

Dar Es Salaam

Cairo

Niamey

Johannesburg

Dakar

Cape Town

Delhi

Wuhan

Beijing

Changwon

Seoul

Daegu

Dhaka

Bangkok

Tokyo

Shanghai

Shenzhen

Honk Kong

Sydney

Melbourne

Hanoi

Ho Chi Minh

Singapore

Jakarta

Karachi

Mumbai

Project Assessment Policy Council

NORTH AMERICA

528 million inhabitants

15 cities analysed

13   13   15   13

Area with a long tradition of urban food policies, especially related to the struggle with diet-related pathologies and to fight the decline of access to fresh food (food desert). The food systems have been included not only as a subject of the processes of economic planning but also, and especially, as means of urban development

SOUTH AMERICA

385 million inhabitants

10 cities analysed

8   4   2   1

Latin America is recently witnessing a steady social and economic growth. In this region the food issues are shaped in initiatives to ensure food security and to promote the local economic development, which finds in food a strong growth element

EUROPE

711 million inhabitants

28 cities analysed

16   3   9   5

In Europe the issue was first articulated around the experiences promoted by the civil society, later it reached the institutional levels and the technical and scientific debate. If initially the experiences mainly involved the equity of markets and the relationship between producer and consumer, in recent years different systemic contributions have been emerging

AFRICA

1,100 million inhabitants

9 cities analysed

9   6   2   1

On the African continent the declination of food issues within the rapidly expanding cities is mostly implemented in projects of urban agriculture and to monitor the state of food security. Initiatives are often carried out with the support of international cooperation or of agencies and international institutions

ASIA

4,140 million inhabitants

21 cities analysed

8   9   8

In the rapidly economic growing Asian context the theme of food within cities is often managed by national governments, in order to monitor the status of food security and mainly to develop experiences of urban agriculture

OCEANIA

36 million inhabitants

2 cities analysed

2   1   1

Oceania conforms to European and North American experiences, considering the food as a driver for the urban development within systemic policies

food desert   obesity
                urban agriculture
        food policy council
food assessment   monitoring
education   food system   waste
    nutritional standards

empowerment   local economy
        food security
    food strategy   slum
school   international cooperation
    malnutrition   assessment

        strategy
markets   education
    urban development
producer consumer   policy
vegetable gardens
    school   suburban
food waste   quality
        culture

        sovereignty
nutritional standards   urban agriculture
                development
    empowerment
cooperation   monitoring
        food safety

        empowerment
urban agriculture   malnutrition
national governments   economy
diet   urban agriculture
    food safety

        strategy   periurban
food events   education
urban development   communication
        policy   culture

ABSTRACT

Bristol is the first case in Europe that developed
an analysis document, a participatory process, a strategy,
some actions and a city council specifically dedicated
to the issues of food. It started as coordination
of experiences from the bottom and it was later
institutionalized by the municipality

Bristol Good Food Charter

Who Feeds Bristol?
Bristol Food Policy Council

Good Food Plan for Bristol
Food Poverty Report

Food Connection Festival

2009

2010

2011

2012

2013

2014

BRISTOL
432,000 inhabitants
metropolitan areas 1,006,000 inhabitants

Target
Bristol Green Capital
The goal accepted in 2015 is to reduce 40%
of the carbon emissions by 2020

Bristol Green Capital

2020

2015

4

Public Decision Maker
Bristol City Council

Civil society
Bristol Food Network
The network supports, informs
and connects people, projects, organizations
and companies that share the desire
to make Bristol a sustainable city, starting
with issues related to food

Technical/scientific Subject
Bristol Food Policy Council
The council supports and develops sustainable
food strategy of the city, it is composed of people
who represent the main social and economical areas
of the food system

Scalability
City and Region
Land administered by the city, expanded with
an extension to the metropolitan area of Bristol

Process

Bristol Food Charter

Charter of values, in which the city
expresses the basic principles in order
to transform the food system
in a sustainable way for the inhabitants,
the places and the planet

Process

Who Feeds Bristol

Baseline survey produced
by the council on order to describe
the state of the food system of the city
and the region

Process

Good Food Plan
for Bristol

Food Strategy of Bristol City
made up of 8 integrated priority goals

Contents

Priority
The Food Plan is divided into 8 priorities: food culture,
protection of retail, defence of the land for agricultural production,
increase of urban production, recycling and composting of food
waste, protection of key infrastructures of the food chain;
increase of market opportunities; support to food entrepreneurship

Contents

Implementation
The plan defines the goals to reach, the food council will
aim to coordinate and harmonize the necessary investments
in order to implement the plan

ABSTRACT

The City of Ghent has entered the food issues
in the broader Climate Plan. The administration
has placed particular attention on food choices
and on the consumption of food, assuming the role
of facilitator of all the organizations working
on its territory, which help to promote a healthier
and more sustainable diet

Vegetarian Thursday

Working Group
on Urban Agriculture

Flemish Strategic Plan
on the short chain

2009

2010

2011

2012
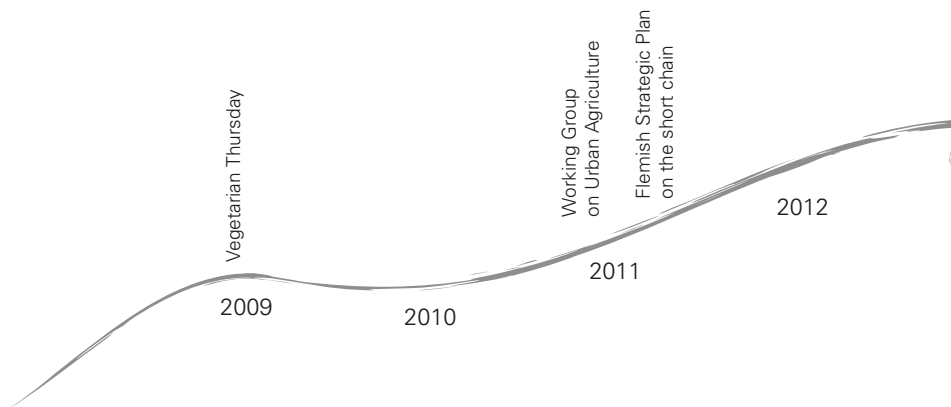
GHENT
248,000 inhabitants

Target
Vision 2019
The City has entered the food initiatives within its
Climate Plan (2014/2019) active on a wide spectrum
of issues related to sustainability

2019

Food Strategy
"Ghent en Garde"

Ghent Food Council

2014

2013
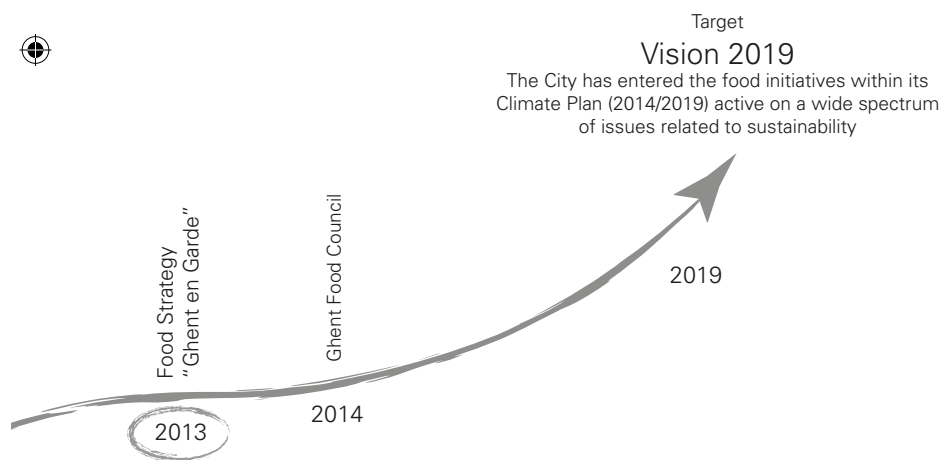
Gradual transition from isolated initiatives concerning urban
agriculture to more structured relationship of the individual
initiatives, in a coordinated and unified strategy

Contents
Ghent Urban Farming Brand
It's a territorial brand used on products, events
and projects that promote healthy and sustainable
eating. A network active in projects of urban
agriculture manages it

Public Decision maker
City Council

Technical/scientific subject
Ghent Food Council
Supporting the City in the definition of the Food
Strategy through recommendations for a more
sustainable food system

Scalability
City
The activities are promoted within the city, on the basis
of the administrative power of the City (school and public
canteens) and to persuade the private operators active
in the administration of food

Contents
Doggy Bag
It is a box, sponsored by the City Council, to store food
not consumed in restaurants and canteens of the city,
in order to be able to enjoy it later at home

Contents
Vegetarian Thursday
Along with other socio-economic actors the City
has fostered the institution of a day in which sustainable
vegetarian food is promoted. The 35 public and school
canteens, as well as a growing number of bars
and restaurants, have adapted to this programme

Process
Food Strategy
"Ghent en Garde"

Food strategy of the city divided into five
objectives to reduce the environmental
impact of the food system articulated in:
supporting short supply chains, promoting
sustainable consumption, giving value
to initiatives on food, reducing food waste,
acting on food surpluses

Contents
Implementation
The City will implement its strategy by developing
partnerships with other local actors with a strong
synergy within the Food Council "Ghent en Garde"

Contents
Monitoring
The association Ethical Vegetarian Alternative monitors
the development of the program Vegetarian Thursday
that is changing the lifestyles of the inhabitants
(1 out of 6 eats only vegetarian food 3 days a week)

ABSTRACT

With the creation of the London Food Board
and the definition of the Mayor's Food Strategy the City
of London has promoted a new awareness
on the issues related to food, placing it in a privileged
position on the urban agenda

Mayor's Food Strategy

Establishment of the London Food Board

First Implementation Plan of
The Mayor's Food Strategy

Food Vision for the London
Olympic Games

Fruit and Vegetables
Task Force

2010

2009

2008

2007

2006

LONDON
8,400,000 inhabitants
Metropolitan area11,900,000 inhabitants

Good Food for London 1

Good Food for London 2

Good Food for London 3

Good Food for London 4

2016

2014

2013

2012

2011

Second Plan of Implementation
of The Mayor's Food Strategy

Public Decision Maker
Greater London Authority
Mayor of London

Technical/scientific Subject
London Food Board
Consultative Group on Food Strategy in London,
it provides recommendations to the Mayor and
to the Grater London Authority

Contents
Implementation
The strategy describes the objectives and actions by stating
the need to realise a detailed action plan for each initiative.
This task is assigned to the Greater London Authority
and to the Mayor. The implementation was entrusted
to the development of partnerships, the identification
of resources and the definition of timing, also in relation
to initiatives and special events as the 2012 Olympics

Scalability
City
Territory on which the local authority
has administrative power and a priority
relationships in the municipalities

Contents
Local Monitoring
Good Food for London Map of initiatives related to healthy
and sustainable food (the mapping was carried out by an NGO
in collaboration with the local authorities to map the evolution
of the projects within the London boroughs)

Process
Analysis

The Food Strategy includes a database that contains a lot of data that describe the different stages of the food chain

Process
Mayor's Food Strategy

Long-term vision. Aims to be achieved. List of actions associated to each stage of the food chain

Contents
Priorities
Business and commerce (the food system employs 10% of the workers); communities and citizens (spread greater nutritional awareness); boroughs (actions spread across the city)

Contents
Monitoring
Objectives and actions contain commitments that are quantitatively and qualitatively measurable. After the approval of the Food Strategy two Implementation Plans were made, in order to verify the implementation of the defined actions

Involving other subjects
Development of Partnerships
The strategy document describes the possible synergies with other subjects relating to: private sector, government and national agencies, regional sub-regional and local players, voluntary organizations and charities, Londoners

Target
Vision 2016
The vision integrates cross skills of the Mayor, the objectives are associated to five key themes: improve the health of Londoners through the food eaten, reduce the carbon footprint and environmental impact of the food industry, support the food economy, celebrate the diversity of food culture, develop food security. The objectives are declined in shares in the eight stages of the food chain

ABSTRACT

The City of Melbourne has launched a consultation process open to all citizens. The public debate has been fuelled through a document that described, with non-technical language, the food system of the city. Three forums on the subject were then organised. On this basis, it established its own food policy and it promoted a series of cultural initiatives to spread its contents to all citizens

Food Policy Discussion Paper

Melbourne Food Policy

2011

2012

MELBOURNE
4,350,000 inhabitants

Target

Vision
The main objective of the International Food Policy is to improve people's health and wellbeing by creating a food system that is secure, healthy, sustainable, thriving and socially inclusive

Just Food. A documentary on the food system of the city made thanks to crowd founding

Guide to green roofs and facades

2014

2013

Melbourne has created several moments of interaction with citizens and studied many tools to communicate its initiatives and consult the people

Public Decision Maker

City of Melbourne
The process was initiated
by the health division of the city
and then it was extended
to all the administration

Subject with statutory mandate

Food Policy Steering Committee
Composed by public officials of the administration
to define the contents of the Policy
and to monitor its outcomes

Subject with statutory mandate

Food Policy Advisory Group
Subject in an advisory capacity on the strategic
vision of the Food Policy and future food initiatives

Contents

Implementation
Implementation is entrusted to an action plan indicating
resources, timelines and responsibilities.
The role of the municipality is focused on:
education, development of partnerships; advocacy
and leadership, regulation, search

Scalability

Metropolitan Area
The food policy acts at metropolitan level within the perimeters
of the city administration that include the entire metropolitan
area defined as City of Melbourne

Contents of the consultation
Food Flyer
10,000 postcards were sent out, to make a public inquiry about
what food means for the people, and what is the main issue to
face. Totem poles with infographics were installed in several central
locations in the city where people could participate in the survey

Contents of the consultation
Food Policy Position
Paper
Prepared by experts to provide
information based on the state of the
food system with a non-technical
language, instrumental in leading the
first phase of public consultations

Contents of the consultation
Forum
Three meetings with representatives of different food-related worlds
were organised, to discuss the results of the consultation and to
bring out the priorities to be dealt with in the Food Policy

Process
Melbourne
Food Policy

Communicative document with which
the administration has defined the five priorities
to change the system to increase food security,
modify food choices, make the system more
sustainable, increase the food economy,
celebrate food

Contents
Monitoring
Within the Action Plan is a system
of reporting results with a monitoring
function process

ABSTRACT

The city of Milan is one of the last cities, as far as time is concerned, to have established a Food Policy. It was built considering the good practices already active in the world and involving as many local players as possible. The city is an example at national level for third sector, philanthropy, research, enterprise, finance and innovation

Memorandum of Understanding
to set the goals

Assessment
Milan Food System

2014
July

2015
January

MILAN
1,300,000 inhabitants
metropolitan area 3,200,000 inhabitants

Public consultation of experts,
institutions, companies,
associations, citizens

Approval of the Food Policy

Urban Food Policy Pact

Pilot projects
on the issues identified by the Food Polic

2015
June

2015
October

2015
December

Public Decision Maker
Mayor of Milan

Technical/scientific Subject
Fondazione Cariplo
One of the world's main philanthropic organizations,
the foundation operates on the basis of the principle of
subsidiarity, anticipating needs and helping social and
civil organizations better serve their community

Control Room
Milan Food Policy

Contents
Memorandum of Understanding
Between the City of Milan
and Fondazione Cariplo, willing to work
together in order to build
the food policy of Milan, defining
objectives and governance

Technical/scientific Subject
Economia e Sostenibilità
Association that works for the promotion
of integrated projects with a high level
of sustainability

Scalability
City and wide area
The policy applies to all the relations that the food system
has with the society, the economy and the environment
in Milan. It focuses its attention on the city of Milan, but it also
tries to understand the relationships between the city
and the metropolitan area

Contents
Implementation
The City will drive the implementation of pilot projects
on specific issues, insired by the Food Policy to produce
positive impacts on the city

Process
Goals
of the
Food Policy

Knowledge
Provide scientific and systemic knowledge on the production and consumption of food in the Milan area

Integrated system
Create a system of political-institutional addresses to integrate all the dimensions of the city government
that deal with the issue of food

Sustainability
To make the food system in Milan more fair and sustainable, to qualify the entire municipality starting
from the issues of food and to experiment an innovative way to rule the city

Engagement
To encourage the engagement of citizens and stakeholders in the design and implementation
of measures aimed at improving the quality of the food system in Milan

Strategy
To tranform the World Fair Expo 2015 legacy into concrete actions, that will develop
in the medium-long term

International debate
To contribute to the international debate on the centrality of the city, for the promotion
of sustainable development

Process
Assessment
Milan Food System

Analysis to collect, integrate, synthesize and evaluate the interconnections of all the information related to the current situation of policies and actions related to food. It gives back an image of the complexity of the urban food system and helps to create the appropriate basis to understand it

Contents
International Analysis
Stimulating the debate, by studying 87 successful international experiences
Analysis of the Food System
Picturing the components, which make up the cycle of food: production, processing, logistics, distribution, consumption and waste
Analysis of the activities of the City
Composing the policies and competencies of the City, according to the components of the food system

Contents
The 10 Issues of Milan Food Policy
The assessment has identified ten issues that summarise the complexity of food in Milan and easy reading of its many connections: governance, education, waste, access, welfare, health, environment, agro-ecosystem, production, finance, and trade

Contents
Urban Food Policy Pact
An international pact that unites city leaders worldwide for the creation of more just and sustainable urban food systems. Over 40 cities in the world will sign the Urban Food Policy Pact in Milan on World Food Day 2015

Process
Consultation

Encourage the involvement of citizens and stakeholders in the design and realization of the measures needed to improve the quality of Milan food system: a multi-stakeholder governance to entrench innovation within networks as articulated as possible, to capitalize existing plans, ideas, skills, investments and growing widespread sensitivity

Contents
Approval of the Food Policy
Approval by the Major and the City Council

ABSTRACT

The New York case is very complex and it includes
tools for systematic and constant monitoring
of its food system. The use of publicly encoded
data and indicators forms an effective basis to structure
the public debate, to define the actions
of the administration concerning food and to orient
the implementation of food policy

Food Policy Task Force

Executive Order
New York Food Standards

City Food & Climate Summit

A Blueprint for a Sustainable Food System

2006

2007

2008

2009

2010
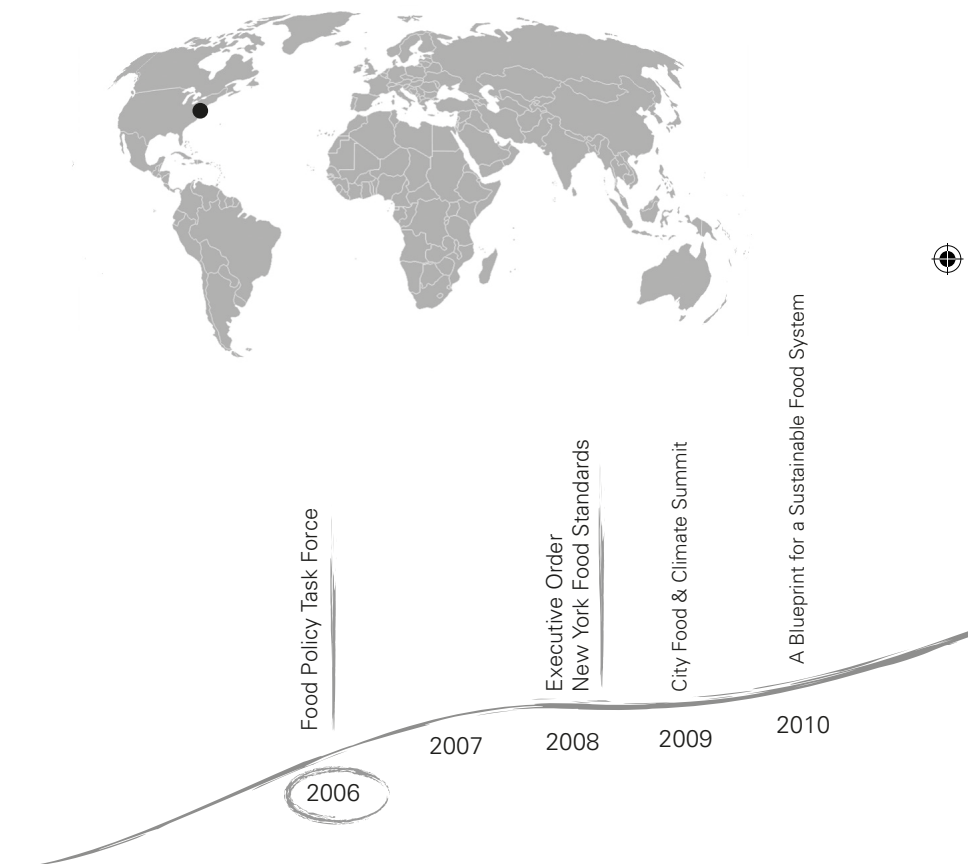
NEW YORK
8,400,000 inhabitants
metropolitan area 19,600,000 inhabitants

Local Law Food Metrics

Mayor's Task Force on Obesity

Foodworks
A Vision to Improve NYC's Food System

2011

2012

2013

2030

PLANYC
Sustainable Integrated Plan to manage
long-term challenges, from climate change
to economic development.
Food actions are hinged within the plan
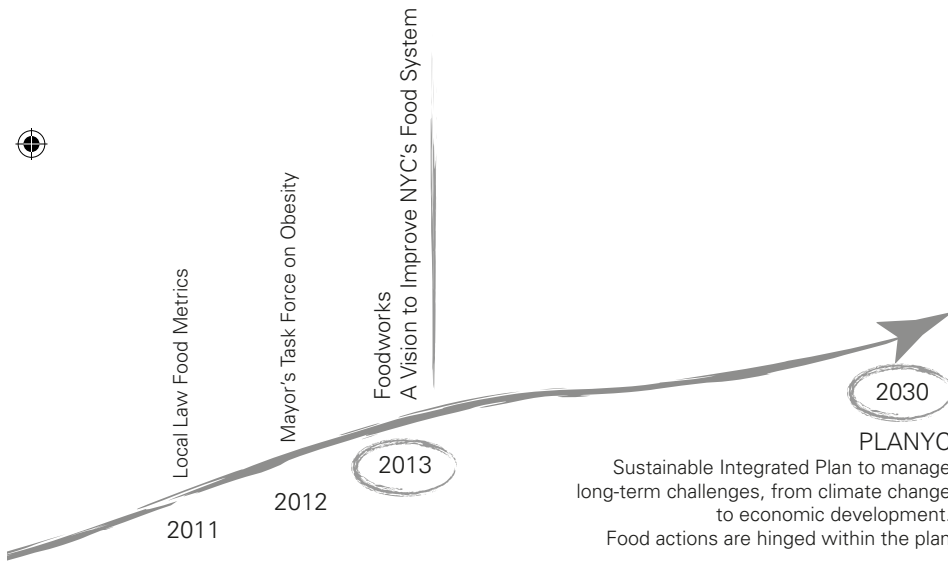
At the same time of the Climate Summit in Copenhagen (2009)
in New York several hundred New Yorkers have discussed, at the request
of the administration and the University of New York, the role of cities
to halt and reverse climate change by acting on the food system.
The debate was organized in workshops and plenary sessions, constituting
a sharing of knowledge on the subject

Public Decision Maker
Mayor of New York

Involving other subjects
Civic Consultation
Food & Climate Summit was organized by
the administration and by the University of
New York to share the theme with citizens
and to structure the objectives

Public Decision Maker
City Council

Technical subject
New York City Food Policy Task Force
It is a coordination group made up of representatives of the
different agencies of the city and the city council, coordinated
by the Director of the Food Policy Office

Contents
Implementation
The implementation of the food policy is overseen and managed
by the Office of the Director of Food Policy, in synergy
with the Office of Long-Term Planning and Sustainability,
which coordinates the task force. It consists of: Mayor's Office,
NYC Department of Health and Mental Hygiene,
NYC Department of Education, NYC Human Resources
Administration, NYC Economic Development Corporation, the
Department for the Aging, Centre for Economic Opportunities

Contents
Priorities
1) To improve the access to healthy food
Programs in the areas of retail sales to increase access to fruits and fresh
vegetables in underserved neighbourhoods. Promote a healthy diet through
regulations for health (fats, labelling, calories...). Nutrition education
programmes in farmers' markets, public health campaigns and children's
programmes to raise awareness. Standard for the administration and sale
of food within public agencies, acting on public procurement.
2) To promote food security
Assist the access to healthy food for low-income families and individuals acting
on regulation, implementation time, subsidies for the purchase of fresh fruit,
urban food assistance programs, free school lunches.
3) To improve the sustainability of the food system
By acting on urban infrastructure through the integrated plan PLANYC.
It operates in the fields: housing and neighbourhoods, urban parks, water cycle,
transport, waste

Process
NYC Food Standard
Mayoral Executive Order

The Mayor signed an executive order to establish the New York City Food Standards, created with the goal of improving the health of all New Yorkers served by City agencies (meals, snacks, drinks, vending machines, canteens, events). The aim is to reduce the prevalence of chronic disease, such as obesity, diabetes and cardiovascular disease, by improving dietary intake, decreasing the risk of chronic diseases related to an incorrect diet. The standards have been developed based upon agency feedback, review, and agreement

Scalability
City
Territory on which the local authority
has administrative power

2008 standards for meals and snacks purchased and served
2009 standards for drinks in vending machines
2011 standards for food in vending machines
2013 standards for meetings and events
2013 standards for prisons

Process
FOODNYC
Blueprint for a Sustainable
Food System

10 objectives and policy recommendations for the city of New York emerged from the NYC Food & Climate Summit, about the relationship concerning food, climate, health and economy. The discussion was organized in 25 sessions involving politicians, citizens and economic players to inspire solutions to the problems

Process
FOODWORKS
A Vision to improve NYC's
Food System

Planning document that contains a vision to improve the food system in New York. It is a global report that examines the various components of the food system of the city (agricultural production, processing, distribution, consumption and post-consumption) and assesses their impact on city and residents. It proposes 59 strategic actions to improve health, community, economic development and environmental sustainability

Contents
The Food Metrics Report
Local Law 52 of 2011: Food Metrics for New York City
With a local law the City of New York has begun a process of systematic
monitoring of its food system, enhancing and linking the data already
collected by other public institutions with a view to sharing the efforts.
Each year the Food Metrics Report for New York City will be issued,
showing and describing the evolution of 19 issues, to which different
sets of indicators correspond. The report is prepared by the Office
of Long-Term Planning and Sustainability and discussed
in the City Council of New York

ABSTRACT

San Francisco has a vibrant civil society that has
set up a coordination called Food Alliance. It animates
the public debate and the actions on food issues.
Based on this experience, the Municipality has promoted
a series of actions designed to operate in an organic
way on the urban and metropolitan food system.
It also acts as facilitator of stakeholder relations

Plan for Sustainability (Food)

Definition of the Food System

California Strategic Alliance

Collaborative Food System Assessment

1997

2002

2005
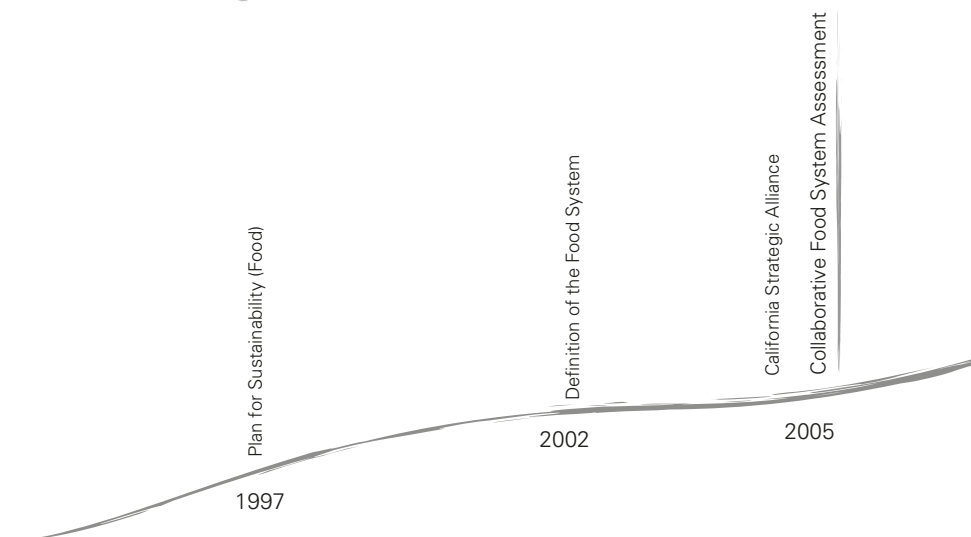
SAN FRANCISCO
837,000 inhabitants
metropolitan area 4,500,000 inhabitants

Establishment of the Food Policy Council

Healthy and Sustainable Food

Initiatives of Urban Agriculture

Assessment Food School

Happy Meal Legislation

Initiatives for street vendors

Soda Free Summer

Slow Food Nation

2008

2009

2010

2011
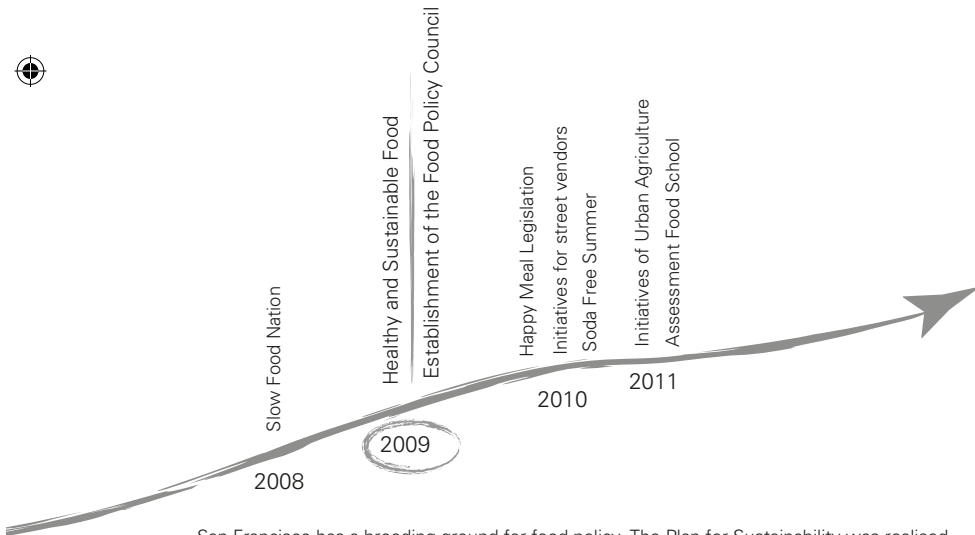
San Francisco has a breeding ground for food policy. The Plan for Sustainability was realised
in 1997, with a component on food and agriculture and the proposal
of a comprehensive approach. That desire was then cultured through initiatives promoted
by the civil society merged in 2004 in the founding conference of the Food Alliance.
Since that time the municipal institution has driven a process of change that was better
codified in 2009 with an Executive Directive with which the Food Policy Council
was established and a number of improvement actions were taken

Public Decision Maker

Mayor of San Francisco

Other subjects involved

San Francisco Food Alliance
Founded in 2003, during a town conference
on food with the aim of creating a broad,
dynamic and sustainable movement
for the city and the county

Technical Subject

Food Policy Council
Coordination group composed of members
of the different structures of the city, open to
the participation of social subjects and individuals
who are variously involved in the food system.
The Council produces an annual report on the state
of implementation of the Directive of the Mayor and
recommendations about its implementation

Scalability

City and County
The area of application of the policy
is simultaneously the city and the County
(metropolitan area) because the city
government exercises administrative power
in both territories

Scalability

State
Some actions have been developed
in collaboration or with the support
of the State of California, where there
is a Food Policy Council. The City of San
Francisco is one of its active members

Process
Collaborative
Food System Assessment

Definition of a photography of the food system of the city. The data come from existing sources (government state, local databases), their aggregation is functional to describe organic components and trends of the system within the city

Process
Healthy and Sustainable
Food for San Francisco
Mayoral Executive Directive

Executive directive with which the Mayor establishes the Food Council and the general principles with which to define the food policy of the city.
It contains a series of actions directed to the administrative structure of the city

Contents
Monitoring
The Directive provides for the production of deliverables verifiable by the Mayor's office and the office for the International Food Policy

Contents
Priority
The actions implemented by the Policy and later developed by the Council have been directed to develop the following priorities: nutrition standards, urban agriculture, regional food, food safety, food economy, fishing

Process
Recommendations to
Improve Healthy Food and
Activity Options
California Strategic Alliance

Recommendations containing a number of specific actions for economic, educational, social, institutional players, in order to improve public health through healthy eating and physical activity

ABSTRACT

The City of Toronto was one of the first cities
to establish a Food Policy Council and has become
a municipal food policy leader. The city has been
a promoter in taking responsibility also at metropolitan
and state level, by adopting a law on food policy
and has been followed by many other cities
in Canada and in the United States

Toronto Food Policy Council
Established by Toronto Public Health

Interdepartmental Support
to Urban Agriculture

Community Garden Programme

Toronto Food Policy Council
Passed under the control
of the City Council

Toronto Food Charter

Plan for urban agriculture on
the roofs of the gardens

Food Animators programme

Vancouver Food Charter

1991

1993

1997

1998

2001

2002

2005

2007

TORONTO
2,503,000 inhabitants
metropolitan area 5,753,000 inhabitants

Discussion in the City Council on the economic opportunities of urban agriculture

Definition of the Youth Food Policy Council

Definition of the Food Strategy

Great Toronto Area Food Action Plan

Toronto expresses recommendations for the National Food Policy Act

The Mobile Good Food Market

Ontario Food and Nutrition Strategy

Target
Vision
To affect the health of individuals, ensuring affordable access to healthy foods in all districts of the city

2021

2009

2010

2011

2012

2013

2014

Civic Subject
Toronto Youth Food Policy Council
Mobilizing and involving young people on Food Policy,
provides young people an open space to encourage
participation and to influence dietary changes

Contents
Position Paper
Documents produced on a regular basis,
containing priorities and commitments
identified by young people

Award
Local Food Hero
Individuals who, through creative solutions,
have helped to improve the food system

Public Decision Maker
City Council

Technical/scientific subject
Toronto Food Policy Council
Recommends and supports the Toronto Public Health
in the development of food security policies; it promotes
dialogue on food; it acts as an actor primarily responsible
for the food strategy of Toronto

Technical/scientific subject
Greater Toronto Area
Food Action Committee is a partnership
involving municipal and state authorities
to produce the action plan

Scalability
City/Region/Nation
Activities in the territories administered by the city
and in the metropolitan area. It takes part in the Ontario
State strategy and has become an inspiration
to the Canadian Food Law

State level
Ontario Local Food Act
The Food Council participates
to the recommendations for the definition
of the state law on local food

Process
GrowTO: Urban Agriculture Action Plan for Toronto

It is a document that proposes several recommendations for scaling up urban agriculture projects and access to urban agriculture resources within the City of Toronto

Process
Toronto Food Charter

Document voted unanimously
by the City Council
to address Toronto to
become a Food Security City

Process
Great Toronto Area Food Action Plan 2021

It acts on a metropolitan scale of which
Toronto is the centre (Golden Horseshoe) and
consists of 5 strategies and 18 actions

Contents
Monitoring
Monitoring of the plan entrusted to municipalities

Projects
Toronto Food Strategy

The city is a partner in many projects to implement an integrated strategy, some of their contents are:
1) The Mobile Good Food Market – it is a green grocer on wheels, a truck that is selling affordable fresh fruit and vegetables to neighbourhoods that otherwise don't have easy access to fresh food
2) Job, training on food
3) Promotion of food in migrant communities in order to increase food biodiversity
4) Mapping of the stores that distribute healthy, affordable, sustainable and culturally acceptable food

Contents
Implementation
Coordination among the different stakeholders to work together more efficiently and to develop a new model of governance within the Golden Horseshoe Food and Agriculture Alliance

ABSTRACT

The City of Vancouver has extensive experience
in the food policies. The policy paper responds
to a 2003 mandate, which subsequently led to the
establishment of the Food Council, to the principles
defined in 2007 in the Food Charter and to the 2011
Greenest City Action Plan, in addition to many local
laws, regulations, programs and financial measures
and taxation that have made Vancouver one
of the leading cities in the field of urban food policies

Many subjects have contributed in order to initiate a process
of deepening and maturing of the issues associated with
Vancouver Food System, thanks to conferences and
workshops to structure a widespread awareness

The City Council starts a process
for the creation of a subject with
a statutory mandate

Establishment of the Food Policy Council

Food System Assessment

Guidelines for Urban Beekeepers

Vancouver Food Charter

With the establishment
of the Food Policy
Council policies and
food programs in
Vancouver began to
develop systematically
combining actions of
the City Council and the
Park of Vancouver

1993

2003

2004

2005

2006

2007

VANCOUVER
615,000 inhabitants
metropolitan area 2,318,000 inhabitants

Guidelines for urban agriculture

Subsidies for urban agriculture

Guidelines for breeding hens

Program for the collection of waste

Policy for Farmers Market

Green City Action Plan and Local Food

Expansion of Street Food Program

Civic consultation "Talk food with us"

Vancouver Food Strategy

2009

2010

2011

2012

2013

2020

Greenest City 2020
Food as part of a strategy
to make the city more sustainable
(zero carbon, zero waste, healthy ecosystem)

The Food Strategy is designed
to coordinate efforts to make it more
just and sustainable food system in
Vancouver, it is a plan to create a just
and sustainable food system for the city.
It builds on years of food systems
initiatives and grassroots community
development, considering all aspects
of the food system

Public Decision Maker
City of Vancouver

Other subjects involved
Civic consultation
Consultation launched on 2,200 people
(citizens, businesses,
migrant communities)
to develop synergies

Technical/scientific subject
Vancouver Food Policy Council
Advisory Group to provide recommendations
to the City Council on Food Policy

Contents
Implementation
Taking collective responsibility, primarily by the Food
Systems Steering Committee (internal structure to the
local interdepartmental authority)

Land use, regulation of the access
to land grants and incentives,
relations with other public subjects,
relations with superior institutions

Scalability
City/Region
Territory on which the local authority
has administrative power and alliances
with regional municipalities

Process
Food System Assessment

Recommendations for institutional
actors, socio-economic, charities,
production, food council

Evaluate local food security

Analyse and evaluate the food system

Process
Vancouver Food Charter

Vision and shared principles:
economic development,
ecosystem health,
social justice,
participation and celebrations.

Process
Vancouver Food Strategy

Changing the Food System
5 goals
71 actions
Monitoring
Implementation
Examples (Los Angeles, London, Toronto)

Food System as Urban Infrastructure

Productive sector	Cross context
production	territorial leadership
transformation	environment
distribution	health and wellness
access	education and
consumption	culture
trash	

Contents
Monitoring
Quantitative indicators to assess
the resilience of the food system based
on the actions of the strategy

Target
Food +50% by 2020
Vancouver wants to become the world leader
in the management of urban food systems, it has set
itself the goal of increasing city and neighbourhood food
assets by 50% by 2020 (food Hubs, community kitchens,
farmers markets, composting, horticulture, urban farms)

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