City of Bologna, Italy

Incentivizing new urban food gardens

ICLEI Local Governments for Sustainability

In order to inspire a new generation of urban farmers in an increasingly diverse urban area, the City of Bologna and Urban Center Bologna launched a urban-agriculture site design competition. The 2014 competition, known as Ortipertutti, received 81 submissions from all over Europe, with the winning designs receving cash prizes and being transformed into actionable projects.

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Introduction

If food is indeed the one true international language, there are few cultures where it is spoken with the verve and passion that one finds in Italy. The City of Bologna has been a strong supporter of urban agriculture, with a history of dedicated regulations supporting urban food gardens that dates back to the 1980s. As a result of this enabling environment, urban agriculture within the city has proliferated: a municipal survey conducted in 2014 revealed that 30 hectares of land within the city are suitable for urban food gardens, with a significant amount of this land already under cultivation .

The City of Bologna sees its urban gardens as providing multiple sustainability benefits, including enhancing biodiversity, promoting environmental protection and lessening local reliance on external resource inputs. Urban agriculture is also seen as a way to create spaces to enhance social aggregation and inclusion, and raise public awareness about healthy food production.

In the early days of urban agriculture in Bologna, gardens were planned as spaces for the elderly. Nowadays, urban food gardens are seen as a way to engage families, young people, and frequently marginalized groups such as immigrants and people with disabilities. Aiming to further inspire this new generation of urban farmers, the Municipality of Bologna has taken action by initiating "Ortipertutti", a multi-actor international architectural initiative for promoting urban agriculture in Bologna, and making revisions to the municipal regulations on horticultural areas that are presently in the urban planning strategy to further enable urban agriculture.

Facts & Figures

Population (2017)

389,261

Land area (2015)

140.86 km²

Urban agriculture for sustainable development

More than half of the global population now lives in urban areas, and projections indicate that another 2.5 billion inhabitants will be added to the global urban population by 2050. This expansion will make achieving secure and sustainable food systems – referring to the value chain for the production and consumption of food – a major challenge to sustainable development.

The present state of global food systems is environmentally, socially and economically unsustainable. Approximately 19-29 per cent of global greenhouse gas (GHG) emissions are linked to food systems , while 40 per cent of global land is presently being utilized for food production. If business-as-usual practices continue, this number is projected to reach 70 per cent by 2050 .

Bologna has been a Member of ICLEI since 1992

When considered in tandem with the significant resource footprint necessitated by urban lifestyles - particularly among most developed countries – the worldwide trend towards urbanization indicates a need to consider the way that cities and food supply systems shape and impact peri-urban and rural areas. The present state of global food systems is pointedly titled towards rural production and urban consumption.

The necessity of a shift to sustainable development pathways places the impetus on local and regional governments to help contribute to a solution. Encouraging the development of city-region food systems which integrate consumers into the value chain – an endeavor being advanced by the ICLEI-RUAF CITYFOOD Network [*Box 1*] – is vital step which addresses multiple dimensions of the global sustainable development agenda . However, as local governments around the world are demonstrating, it is also possible to increase food production within urban areas. Urban agriculture is presently practiced by 800 million people worldwide and supplies food to as many as 700 million people .

Food is a common thread throughout a wide range of municipal and regional intervention areas, including land-use planning, infrastructure and transportation, housing, environmental conservation, and social and economic development . Accordingly, local and regional governments are increasingly being recognized as leaders in the development of sustainable food systems as they turn their municipal areas into testing grounds for innovative policies and initiatives aimed at urban food production. Local and regional governments have also come together at the international level to commit to sustainable food systems through declarations such as the 2015 Milan Urban Food Policy Pact [*Box 2*].

Box 1: CITYFOOD

The ICLEI-RUAF CITYFOOD network aims to accelerate local and regional government action on sustainable and resilient city-region food systems by combining networking with training, policy guidance and technical expertise. CITYFOOD is open to local and regional governments, whether they are engaging with the issue for the first time or working to implement the Milan Urban Food Policy Pact and at the frontier of innovative food systems work.

CITYFOOD is active in both the Global North and South and will build a strong south-south-north exchange platform for learning among cities.

Box 2: Milan Urban Food Policy Pact

The Milan Urban Food Policy Pact (MUFPP) is a commitment to develop secure and sustainable global food systems that has been signed by more than 120 cities around the world. The MUFPP was been developed and implemented by the City of Milan in October 2015 in collaboration with a group of experts from the City-Region Food Systems Collaborative and other interested cities.

ICLEI is one of the endorsing partners of the MUFPP and many ICLEI Member and Network Cities are signatories. By signing the MUFPP, cities commit to coordinate their policies at an international level.

Bologna in context

Bologna is located in the Region of Emilia-Romagna in Northern Italy at the foot of the Apennine Mountains where the Reno and Savena river valleys meet. Comprised of six boroughs ("quartieri"), the city is home to 387,423 inhabitants and is the seventh largest in Italy.

Urban agriculture is an established feature of the Bologna cityscape and has played a small but important role in the city's history. Ancient monastic garden, vegetable patches planted in public greenspace out of necessity during the Second World War, and installations which emerged spontaneously along the banks of the Reno, Savena and Navile canals during the second half of the twentieth century all speak to the long history of agriculture in Bologna.

In 1980, the City of Bologna was one of the first municipalities in Italy to develop an official urban food garden plan. This inaugural plan was aimed at improving the quality of social life for residents and placed specific emphasis on the elderly. Since this first plan, the number and scope of urban food gardens in the City has expanded considerably. A municipal survey on urban agriculture conducted in 2014 identified a total of 30 hectares – an area greater than 42 football pitches – of land within the city that is suitable for urban food gardens, with a significant amount of this land already under cultivation. If the potential production capacity of the 82 hectares of rooftop surface in Bologna is also taken into consideration, rooftop gardens could supply 77 per cent of the yearly vegetables demand of the city and reduce the city-wide CO_2 emissions by more than 624 tonnes per year .

The City moved to make its urban food gardens more in 2009, when it opened up those gardens under municipal control to young people, families and marginalized groups. This move towards greater inclusivity has invigorated the Bolognese urban gardening community. The City is also entrusting third parties with the direct management of urban gardens throughout municipal parks, greenspace, courtyards and other public areas. For example, the "Ort Attack" community garden initiative was launched in 2015 through a collaboration agreement between public schools, local artists and the City. Projects such as these not only promote awareness of local food culture, but complement municipal strategies aimed at reducing GHG emissions.

The next phase of urban agriculture in Bologna will see the City increase the number, area, and distribution of urban food gardens in the city. Emphasis will be placed on enhancing social inclusion and cohesion, improving access for all residents, increasing production of healthy and local food while enhancing public greenspace, and further developing of ecological networks and biodiversity. This commitment to urban agriculture led the City of Bologna to be one of the original signatories to the Milan Urban Food Policy Pact in October 2015.

Image 1: Rooftop gardens provide accessible spaces for small-scale urban agriculture

Source: Urban Center Bologna

Description of activities

An innovative and participative urban agriculture initiative

Following the 2014 survey, Urban Centre Bologna - a multi-stakeholder committee consisting of the City of Bologna and various public, civil society, academic, and private sector partners –began to consider how to deploy new tools and techniques that could complement the existing agriculture scene. It is out of this brainstorming session that the idea of an international competition "Ortipertutti – design competition for urban agriculture" was initiated. The name Ortipertutti – translation: horticulture for all – competition indicates the desire of the City to providing access to urban food gardens to the greatest possible range of people. The various members of Urban Center Bologna partners promoted the initiative extensively on social networks, domestic and international media.

The guiding premise behind the Ortipertutti concept held that multi-stakeholder entries from around the world would allow urban agriculture in Bologna to benefit from the greatest possible spectrum of expertise. Entries to the competition were asked to design three distinct small-to-medium sized urban food gardens that differed in function, size and anticipated surroundings. The three potential surroundings proposed for the competition reflect the three most common contexts in which urban food gardens can be found in Bologna: in-between houses; within public gardens; and in peri-urban open spaces. The three highest ranking entries would receive prize money and the City of Bologna would provide municipal land for implementing the three winning designs.

Every entry to the competition was required to outline a system of solutions that could serve, in conjunction with the presiding urban planning strategy, as a technical guide for either realizing the new design entries or upgrading existing urban agriculture spaces in the city. Any newly designed urban garden was required to demonstrate how it could meet the needs of emerging groups of "hobby farmers" from younger demographics, be based on practical and implementable solutions, and raise public awareness on environmental conservation.

In keeping the with City's commitment to sustainable development, all submitted projects had to follow specific sustainability criteria. These included quality of design elements; coherent agricultural choices; emphasis on biodiversity conservation and enhancement; appropriate waste management with particular attention to recycling practices; efficient water management; accessibility for all residents; and the creation of areas to improve social inclusion.

In order to meet these various criteria, entrants were encouraged to pursue multidisciplinary approaches. The competition was open to teams and individuals alike, including interested parties who did not necessarily have a technical, urban planning, or design background, but had experience in managing agricultural areas.

Results

The Ortipertutti competition

A total of 81 projects were submitted from all over Europe, with the jury – made up of seven members of the Urban Centre Bologna – very impressed by the excellent variety of submissions and the close attention paid to integrating the designs into urban fabric of Bologna. Awards were provided to the three highest finishers according to the jury. First place won 11,700€ (a figure which also covered the costs for implementing the winning design), second and third place received 1200€ and 800€ respectively.

First prize was awarded to a project submitted by the architect Massimo Peota from Rovereto (IT) and his team comprised of Paul Guidotto, David Consulates and Valeria Zamboni. Second prize was awarded to a project presented by architect Luke Engleback of Tunbridge Wells (UK) and his team which included Alessio Russo, Sam Ashdown, and Pastor Jose Reig. The project submitted by architect Valeria Bruni's team in Turin with Gullino Paola, Stefano Scavino was awarded third prize. In addition, the jury decided to jointly award honorable mention to projects represented by the architects: Silvia Maggi of Correggio (IT), Alessandro Pavan of Argelato (IT), and Alfredo Borghi of Mirandola (IT).

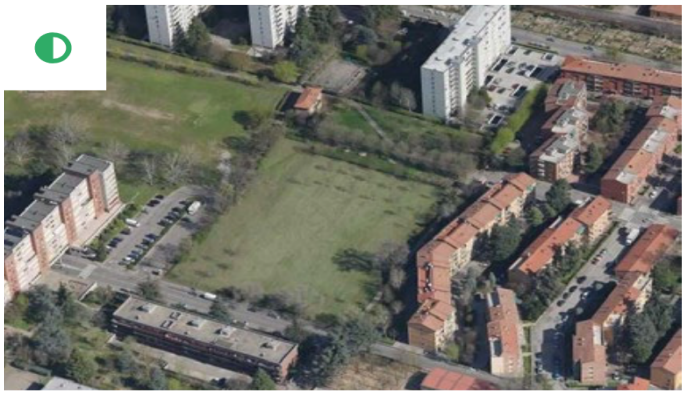
The winning designs were also on display for residents of Bologna; from May to June 2015, Urban Center Bologna hosted an "Ortipertutti" showcase. This showcase was held in conjunction with a "Carrot City" exhibition, which featured good practice international urban agriculture design projects, and the "Cittá degli orti é Bologna", an event-based initiative launched to further promote urban agriculture in the city.

As per the requirements, the winning project outlined a plan aiming to increase the ecological and aesthetic value of the target areas, and at the same time to foster social inclusion through creating public spaces for people either to gather after farming or to organize meetings and learning opportunities. The design incorporated storage rooms for gardening tools, refreshment areas for urban farmers to gather and interact, and relied heavily on timber for construction. Recycled soil and permeable materials for pavement was also integrated. An orchard was included to enhance biodiversity while some green spaces were left intentionally empty to accommodate future developments. The winning team was given the task of producing the detailed designs for all three winning designs, as well as managing and monitoring the construction works in all three projects in cooperation with City of Bologna.

In order to turn the winning designs into actionable projects, a revision of the needed costs and materials was conducted by the Design Team, Urban Center Bologna and the municipal Environment and Energy department, as the revised design needed to be quick to build and easily reproducible in the different surroundings. Construction of the winning designs began in two municipal gardens, Giardino Giuseppe Impastato and Parco Campagna, in late-2015.

Giardino via Pinardi

Parco via Larga



Giardino Impastato

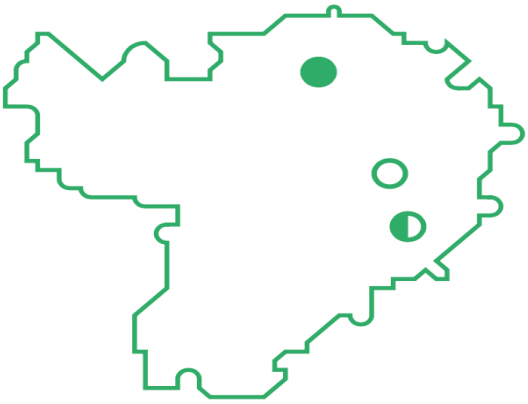


Image 2: The three sites selected for the Ortipertutti competition

Source: Urban Center Bologna

Adjustments to the supporting policy framework

Gleaning from the lessons learned through crafting the competition, the existing policy framework surrounding urban food gardens in Bologna was revised in parallel with the "Ortipertutti" initiative.

Modifications were made to the Regolamento Urbanistico Edilizio (RUE) – the most thematically explicit policy tool used to regulate urban agriculture – were proposed in 2014 and enacted in 2015. These modifications include the introduction of Article 42, which is entirely dedicated to urban horticulture and defines a minimum garden size of 20 square meters and a minimum number of 20 plots per garden. Along with more size-related limitations, notable aspects of Article 42 include a clear statement on the social and ecological functions of urban food gardens and the promotion of organic and local products. Design must be functional (e.g. access points should be located nearby public transports stops) and flexible, in order to accommodate potential changes in the future.

City of Bologna staff has compiled "action-sheets" ("schede prestazionali") indicating activities that shall be undertaken in order to fulfil all regulations. For example, both new and existing horticultural areas will undergo an evaluation in order to minimize exposition to atmospheric and electromagnetic pollution or potential soil contamination. Then, if necessary, the City would either recover or secure (e.g. using natural barriers or filters) the plots. In regard to the water management regulation, farm managers have to provide their gardens with either rainwater or subsoil water collection systems.

Following the revision of the RUE, "Regolamento per la conduzione e la gestione dei terreni adibiti ad aree ortive" (translation: regulation for the management for vegetable gardens areas) was also modified, with adjustments coming into force in mid-2016. The City used this modification to formally reiterate its desire to foster social inclusion, improve urban environment, and support citizens´ initiatives and self-organization through municipal urban food gardens. The City has is also testing a new "collaboration agreement" to support the management of new urban food gardens, initiated on the basis of the subsidiarity principle (art. 118 of the Italian Constitution) which permits the City to support citizens' initiatives that foster public welfare.

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References and further reading

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Replication

- **Begin with an assessment.** Conducting the survey in 2014 allowed the Municipality to measure and map existing urban food gardens in the city and to collect information about farmers' needs. Once in possession of this data, the City could shape a more concrete and needs-oriented/resource-efficient initiative and update the associated policy framework.
- **Partnership is an enabling factor.** The various stakeholders involved in urban agriculture hold a diverse range of knowledge, resources, and interests. The Urban Center Bologna – which facilitates the involvement of the City administration, local associations, universities and research centers, professional organizations and residents – provided an opportunity to support the Ortipertutti initiative from a variety of perspectives. This diverse range of stakeholders also helped to foster a multidisciplinary approach, which allowed projects to be more coherent and effective while addressing multiple aspects and functions of urban agriculture, namely community cohesion and inclusion, biodiversity protection, food production, and city livability.
- **Know your priorities: simple, sustainable, replicable.** The City and other partners emphasized that the project design should be simple and sustainable. Using a simple modular Design allows the project to be easily built in the target areas and replicated in others. In the case of the winning project, being sustainable – through using good quality and long-lasting design, recyclable materials, providing sustainable water and waste management, and enhancing biodiversity – allows for urban food gardens to complement various other municipal sustainability initiatives.
- **Create an enabling policy environment.** With its multiple benefits, urban agriculture is suitable to be embedded across a range of urban planning strategies. By using policy tools and exercising their municipal mandate, which includes the administration of municipal infrastructure, a local government can allocate new areas for urban agriculture, revitalize existing spaces, an address large-scale food systems challenges by mandating organic farming, good recycling practices and appropriate water management, while also enhancing community involvement and social inclusion.

Costs and financing

The total cost of the Ortipertutti initiative – including prize monies and collateral events – was 20,000€ and was financed by the Urban Center Bologna . The development of the winning gardens has been financed by the City of Bologna at a cost of approximately 80,000€ . The City of Bologna also provided municipal land for implementation of the winning designs.

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