



LINKING CITIES ON URBAN AGRICULTURE AND URBAN FOOD SYSTEMS

Marielle Dubbeling, RUAF Foundation

“We call for the development and implementation of holistic ecosystems-based approaches for city-region food systems that ensure food security, contribute to urban poverty eradication, protect and enhance local level biodiversity and that are integrated in development plans that strengthen urban resilience and adaptation”

Bonn Mayors Adaptation Charter signed by 20 city-leaders, June 2013

Resilient urban food systems: why should local and regional governments be engaged?

In a world characterized by urbanization, growing urban markets, urban poverty and food insecurity, rising food prices, growing dependence on food imports and challenges posed by climate change, an increasing attention for city-regional or urban food systems responds to the need to place food higher on the urban agenda. This requires new levels of attention from actors who have been less traditionally engaged in food and agriculture decisions, including professional planners and local and regional authorities.

*“Creating healthy, happy and sustainable communities in our cities requires **resilient food systems for the city region**. Until now this aspect of sustainability has largely gone unaddressed by cities, but the time has come for **local governments to put food systems on the table** and take the lead on sustainable food systems, and the right to food, for their urban populations.”*

Konrad Otto-Zimmermann, former Secretary General, ICLEI-Local Governments for Sustainability, December 2012

City-regional food system resilience, following from other sector planning, needs multiple and diverse sources of food supply. Localized production in form of urban and peri-urban agriculture is recognised as one of these (but by no means sole) sources, increasing food and income security at household level and buffering shocks to food price hikes, market distortions, and imported supplies. They offer at the same time opportunities for resource recovery (urban wastes) and climate change adaptation (e.g. designating low lying areas and flood plains for agriculture to prevent construction and reduce impact of floods). More resilient city-region food systems are also characterized by lower urban foot(d)-prints and emissions related to food transport as well as food waste; by protecting the agricultural land base around cities, optimizing the role of agriculture in providing other urban and ecosystem services and strengthening urban-rural linkages. City-regional food systems offer new enterprise and marketing opportunities, while local production and consumption will also result in expenditures being retained within a given locality. City-regional food systems are on their turn an increasingly important driver for many other urban policies such as health and

nutrition, education, economic development, transport, environment, waste and water management, disaster risk reduction, adaptation to climate change and social cohesion.

What can cities do? Examples of successful city food strategies

To develop resilient city-region food systems, a holistic approach which integrates all aspects of the food system, is required. This includes urban and peri-urban agriculture, but also strengthening the rural-urban interface to ensure connections between rural supplies and urban contexts, and taking into account street food, retailers, food processing and distribution, nutrition and health; as well as linkages to water, waste, transport and energy systems.

Cities present constraints, but also opportunities for building sustainable urban food systems. They can preserve food diversity, stimulate food innovations (short supply chains, urban agriculture, new forms of supply procurement, etc.) and have the potential to optimize resource management, infrastructure and waste recycling.

Examples of successful city food strategies include:

- Preferential public food procurement for the public sectors (hospitals, schools, offices)
- Use of smart and local food labels
- Short chain marketing and value adding by farmers in the city region
- Productive and safe reuse of urban wastes and wastewater in urban and peri-urban agriculture
- Supporting food projects by the urban poor/disadvantaged
- Inclusion of urban agriculture and forestry in land use planning, city climate change adaptation and disaster risk reduction
- Supporting local small and medium enterprises in food processing and distribution
- Supporting farmer markets and local food hubs
- Promoting innovative forms of multi-functional agriculture
- Education and learning opportunities on “Good and Healthy Food” production and consumption; nutrition education
- Reduction of food waste and linking to Food Banks
- Forming Food Policy Councils or Platforms

AMMAN, JORDAN

The Municipality of Jordan created in 2005 an urban agriculture bureau. In collaboration with other stakeholders the city implements several projects such as production and distribution of seedlings; the establishment of over 300 rooftop and more than 4000 school and home gardens; and safe re-use of grey-water in agriculture. A land bank was developed in order to better link land owners and (potential) producers. Land use guidelines were developed that require 15% of each plot to be used for greening or agriculture. Training and technical assistance on improved (ecological) farming and access to markets are provided to peri-urban producers. A special logo was developed to promote local, fair and healthy production characteristics of the products. By excluding intermediaries and valorizing distinctive product qualities, better price margins were obtained.

What does make the Amman programme successful? Institutionalizing urban agriculture and food strategies in municipal structures, programs, plans and budgets and facilitating multi-stakeholder partnerships with a wide variety of organizations such as the Ministry of Agriculture and the Ministry of Environment, the Royal Directorate for the Environment, the

University of Jordan, credit and financing organizations and civil society organizations to help leverage needed resources (financial, knowledge etc.) and find synergies between different actors.



BELO HORIZONTE, BRAZIL

The City of Belo Horizonte over the past 10 years has applied a multi-pronged approach to its city-region food policy, by:

- Providing food and nutrition assistance to schools (200.000 school meals/day), 191 day care centers, 19 elderly homes, homeless and food banks (distributing 1260 kg/food a day)
- Subsidized food marketing in 4 popular restaurants (serving 14.000 low-cost and healthy meals/day)
- Supply and food market regulation in 21 service points offering 20 food items against a set price; promoting farmer markets and organic food fairs
- Fostering urban agriculture; support to 126 school and 48 community gardens and promoting fruit cultivation in open spaces
- Preferential procurement of peri-urban agriculture products
- Promoting healthy eating habits and lifestyles through communication and education; training of food handlers
- Employment and income generation in bakery schools and pedagogical kitchens
- Establishment of a school food council; a municipal council for food and nutrition security and a multi-stakeholder forum on urban and peri-urban agriculture.

What makes Belo Horizonte successful? There is strong political leadership and commitment to include food security in the urban agenda in a holistic way. The city developed platforms including all actors working on food system issues, and designed a comprehensive city food and nutrition strategy. The city leverages federal and state resources and food security and social welfare towards local policies and programs; and builds on and links to other local initiatives and community-based programs..



KESBEWA URBAN COUNCIL AND WESTERN PROVINCE, SRI LANKA

Promote space-intensive home-gardens, productive rooftops, rainwater harvesting and recycling of organic household waste and rehabilitation of paddy fields in flood zones and wetlands. They also support enterprise development in form of nurseries and service outlets

for seeds and other accessories, as well as for commercialization. The city and province, through its Ministry for Agriculture, provide- in collaboration with NGOs, international support organisations like UN Habitat and RUAF Foundation, research institutes, training and technical assistance to urban farmers. The city envisages agriculture, agro-parks and green spaces to be integrated in a future green city mosaic. Since 2004, the Province supports urban agriculture with views to decreasing reliance on food imports, enhancing job and income creation and climate change, taking into its potential contribution to the reduction of food-miles, to reducing flooding, to improved waste management, to improving the micro-climate and reducing urban temperatures.

What makes these programmes successful?

Linking food to other policy goals, such as climate change and disaster risk reduction, waste management and economic development, is important. Working across administrative boundaries is also important with regards to optimizing transport infrastructure, land use planning and making optimal use of available resources and knowledge at different levels.



Requirements for successful city food strategies

Examples from these and other cities show that requirements for successful food strategies include:

- Showing how food can help meet different and multiple policy objectives
- Media attention and public dialogue on food issues and the multiple roles of agriculture in urban
- local, regional and national food security, social welfare, economic or climate change programs as well as from different stakeholders
- Designing a variety of (short-term) projects that have strong possibilities of success to help build credibility, next to promoting institutional and policy uptake of food strategies
- Building on existing local initiatives: support for community-based and innovative private sector food projects; replication and up-scaling of successful initiatives
- Combined with creation of a facilitating legal system
- Strong political leadership and longer term continuation of the process
- Involvement of various government departments & disciplines around food issues (e.g. health; agriculture; economic development; marketing; climate change; transport; land use planning; social welfare; education) with a strong coordinating department or champion
- Creating space for broad multi-stakeholder involvement (local government, private sector, civil society, universities) in planning and implementation of food strategies and related projects
- Joint food system assessment, visioning and design of a comprehensive food strategy or action plan
- Leveraging of financial resources from framework and larger scale programmes at city level

- Monitoring of clearly defined indicators for the desired changes in the functioning of the urban food system.

TORONTO, CANADA

The city of Toronto is a municipal food policy leader, with a long history working to ensure access to healthy, affordable, sustainable and culturally acceptable food. The Toronto Food Policy Council (TFPC) was established in 1991 as a subcommittee of the Board of Health to advise the City of Toronto on food policy issues. The TFPC connects diverse people from the food, farming and community sector to develop innovative policies and projects that support a health-focused food system, and provides a forum for dialogue and action amongst different actors across the food system. The TFPC has contributed to a number of municipal policies, including the City's Official Plan, the Environmental Plan, the Food Strategy, the Golden Horseshoe Food and Farm Action Plan, and the Urban Agriculture Action Plan. In 2010, the Toronto Food Strategy was developed by the Toronto Public Health Department in partnership with a number of other organizations and City Divisions. The Food Strategy team has mapped healthy food access across the City, launched a Mobile Good Food Market, started FOODWORKS, a Food Handler and Employability project, developed an urban agriculture action plan; and is undertaking research related to healthy small food retail and community food procurement.

Who were the various government actors involved in Toronto? Public Health, Environment and Efficiency Office, Social Development; Economic Development and Culture; Planning; Parks; Forestry and Recreation; Housing and Long-term care; Employment and Social Services; Licensing and Standards.

What is still needed? Broader involvement of the private sector and food industries, better documentation and evaluation in order to demonstrate successful processes for social change as well as food system and other municipal/regional impacts and stronger linkages between municipal food policy efforts and provincial and federal food, agriculture, public health, and other policy domains.



KATHMANDU, NEPAL

Promotes productive rooftop gardening that provide an opportunity to grow food in inner-city areas in response to decreased agricultural land and a growing reliance on vulnerable food sources from other areas. The city, in collaboration with local NGOs, national research institutes and international organizations (like UN Habitat and RUAF), involves its engineers in the design of rooftop models suitable in the local context, trains masons on construction and building, includes rooftop gardening in building codes, links gardeners to support input supply and marketing enterprises, and promotes rainwater harvesting and composting of city

waste. Radio programs and information leaflets are developed to increase community and policy interest and participation. Impact monitoring is planned for.

What were main reasons for the city to develop such program? Improved waste and water management; food security and nutrition and climate change. Case studies show that intensive rooftop production helps families to become self-sufficient in vegetables and herbs and potentially sell some produce surplus. Rooftop gardens may also have positive impacts on ambient and home temperatures, reducing heating and cooling requirements and thus reducing emissions and save costs.

What is still needed? Real integration of urban agriculture and food in waste, water management and national food security and building programs; larger-scale uptake of the program and broadening the city's vision to a real urban food system that considers preservation of the peri-urban are; food transport and distribution and other elements.



Challenges and gaps for city food system development

“We urge that appropriate mechanisms be made available for capacity building and to ensure direct access and scaled-up financial support for the implementation of urban adaptation, including the development of resilient food systems”

Bonn Mayors Adaptation Charter, June 2013

Shifting scale

Despite growing attention among city governments and international organizations on the importance of urban food and agriculture, there is a need to shift scale from from isolated and temporal projects to larger scale programs and funding; from pilot and individual cities to wider uptake at local and national level. Shifting scale is not happening due to a combination of lack of larger-scale awareness and information (dissemination) on the need for and potential contributions of urban food and agriculture to resilient city development, on current and potential practices, policy and technological innovations; still limited visibility of the topic among multilateral and bilateral donors as well as in international declarations, lack of recent and standardised data on the impacts and associated benefits of urban agriculture and food systems and lack of local and international financing.

Need for training and technical assistance

In order to facilitate local implementation and up-scaling, more training, technical assistance and policy advice is needed on multi-stakeholder planning and design of city food systems and strategies and on integration food and agriculture in to land use and city-development planning. Cities also express demand for training and assistance on improved resource recovery and re-use; on enhancing resilience of urban food systems to climate change and development of urban and peri-urban agriculture models that have the greatest impact on

climate change mitigation and adaptation; on raising land/space rent of agricultural production and on different organizational and governance mechanisms for the promotion of short food chains and localized food hubs.

Lack of guidelines and toolkits

There is a need for practical guidelines on methods and tools for city-food system assessment, planning, design and monitoring. Guidelines could also address other gaps and innovations such as assessment of environmental benefits, services, risks and hazards of urban agriculture; innovative mechanisms for financing of urban agriculture or compilations of successful local and national food policies. Technical guidelines are also needed on how urban agriculture systems can viably be embedded in buildings and other urban structures. Most rooftop programmes for example still focus on green rooftops and few data; costs-benefit analysis, technical guidelines and impact analysis are available for the promotion of productive rooftop gardens in various climates and cities.

Linking and learning

An increasing number of cities, networks and organizations, in both the global North and South are discussing, implementing or working on aspects of more resilient city-regional food systems. By encouraging horizontal, city-to-city learning opportunities and exchanges, lesson learned can be identified and localized and adapted to specific contexts. More support is needed for medium-sized cities where urban growth pressures will be greatest and institutional capacities may be weakest, for regional governments and in linking local and regional governments to work at city-regional level.

*“Cities must start to embrace the challenge of providing uninterrupted access to water, food, and energy, and improve quality of life of all of their citizens, while minimizing resource extraction, energy consumption, and waste generation, and safeguarding ecosystem services. This will depend on how cities are planned and on how city-based energy, waste, transportation, food, water, and sanitation systems are expanded and/or reconfigured. **In this regard, there is a clear role for urban food systems and agriculture as a key land use feature for more resilient city-regions**” –Raf Tuts, Chief of the Urban Environmental Planning Branch, UN-Habitat, July 2013*