

Urban Harvests: Cultivating and Measuring the Benefits of Community Gardens in New York and London

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Seeking to ensure the long-term viability of their cherished resources in the ever-changing cities, advocates are creating new digital tools for community gardens to efficiently record quantitative proof of their social, environmental and economic impacts.

A place to slip away from the city grind and watch butterflies flit between bright flowers... to gossip with your neighbour in the shade of a tree... to dig into the soil and plant vegetables you know will grow tastier and healthier than store-bought ones...

The value of urban community gardens may seem self-evident to the people who tend to and live near them; stories of improved health, strengthened social ties, and other positive effects abound. A growing body of research has sought to articulate the myriad social benefits of community gardening within scientific frameworks.¹ Policy makers and residents seem to agree as well; from Hong Kong to Paris, community gardens are a sought-after feature of every major city these days.

At the same time, the contemporary global city's intersection of limited land area, fluid capital, and citizens' diverse expectation yields the ongoing challenge of brokering compromises between different uses. As Susan Chin, Executive Director of New York non-profit Design Trust for Public Space, cautions, "despite the growing political and public support for community gardens, the real estate market will continue to pose increasing pressure – a challenge faced [by] many cities-in-demand" like New York.

The relative social merits aren't always clear-cut. In, similarly "in-demand", London, for example, one of the uses competing with community open spaces is affordable housing. Maddie Guerlain, Project Coordinator for London food-growing initiative Capital Growth, reports that "rents are on the rise and it has become increasingly difficult to find affordable places to live. As such, the pressure to develop land is high and regeneration and construction projects are sprouting up across many boroughs.² For urban growers [...] this can be a cause for concern as some might see a community garden as an 'unproductive' use of space as its benefits and impacts are not always direct or immediately quantifiable using typical methods".³

Seeking to ensure the long-term viability of their cherished resources in ever-changing, development-pressured cities, some advocates are creating new digital tools for community gardens to quickly and independently capture and communicate quantitative proof of their social, environmental and economic impacts, to supplement anecdotal and academic evidence. In this approach, hands-on data collection and analysis for use in reporting and advocacy join horticultural and management tools as essential features of the community gardener's shed. (*For a selection of community gardening tools from around the world, please see opposite*).

Community Gardening Tools from Cities Around the World



Learning plots, Hong Kong

Participants in Hong Kong's Community Garden Programme receive hands-on horticultural training from Leisure and Cultural Services Department staff. For a small fee, each gardener is assigned a 2.25m² plot on selected parks or open spaces, which they, and up to four friends or relatives can use during the 18-week course. The popular programme allows interested residents to learn basic skills and try their hand at gardening with minimal commitment. www.lcsd.gov.hk/en/green/garden/

(Image: Leisure and Cultural Services Department, Hong Kong).



Searchable map, London

Capital Growth's searchable online map allows visitors and prospective volunteers to find locations and contact details for over 2,200 food growing spaces across London. The map also includes dormant gardens, serving as both archive and resource directory. www.capitalgrowth.org

(Image: Capital Growth, part of Sustain: the alliance for better food and farming).



Fences and signage, New York City

Each of New York City's GreenThumb gardens is required to post a sign with its public opening hours and contact details for gardeners. While gardens are also required to be fenced and locked at night, they must welcome the public for a minimum of 20 dedicated hours each week of the growing season. www.greenthumbnyc.org

(Image: Phillip Kester, GreenThumb).



Nature-friendly resources, Paris

Gardening in a way that respects the environment is a key aspect of Paris's Main Verte programme of *jardins partagés*. To this end, the city has published a free guide on organic gardening techniques, including tips on companion planting, composting, and cover crops. The guide also shares advice on how to cultivate biodiversity, and control unwanted pests without harmful chemicals. www.paris.fr/services-et-infos-pratiques/environnement-et-espaces-verts/nature-et-espaces-verts/les-jardins-partages-203

(Image: Les Incroyables Comestibles).



Gardening ambassadors, Singapore

Each year, Singapore's Community in Bloom programme, managed by the National Parks Board, recognises a group of "Ambassadors" who have exhibited an exceptional commitment to the nation's gardening culture. The CIB Ambassadors form a key part of the community gardening ecosystem, mentoring peers, making media appearances, and providing feedback on the programme. www.nparks.gov.sg/gardening/community-in-bloom-initiative

(Image: National Parks Board of Singapore).



Matching grants, Sydney

The City of Sydney encourages community gardens groups within the local government area to be self-managed to a high standard. New groups need to build community capacity, develop a management plan and apply for grants to fund construction and gardening resources and require land owner permission. Community gardening groups are recommended to apply for quarterly City of Sydney Matching grants, which enables groups to match the City's funds with proof of their own cash or in-kind contributions. The City can also donate gardening resources and assistance to repair facilities in a small capacity and provide technical assistance, training workshops and networking opportunities. www.cityofsydney.nsw.gov.au/community/participation/community-gardens

(Image: The St Helens Community Garden at Glebe in 2014 during construction of the raised garden beds, with permission of the City of Sydney, Australia).

Some Recent History

In the past, community gardens have tended to crop up in cities during times of scarcity or disruption. One common example of this is allotment gardens (*Schrebergärten* in German, *jardins ouvriers* in French) that many European landowners and city governments began providing in response to the 19th Century's waves of industrialisation and urbanisation. These subdivided tracts of land were allocated to help the working poor grow food to feed their families and access healthy recreation. In the U.K., allotment gardens proved so popular that they were enshrined in a series of Parliamentary Acts (1908 to 1950), which require local authorities to preserve and manage sufficient open land to accommodate the demands of the increasing number of city-dwellers without a home garden to the present day.⁴ A decade on from the 2007 global financial crisis,⁵ a well-tended patchwork of allotments is still a common site on the fringes of many European cities, particularly on sites with dimensions or locations less attractive for other uses, and demand remains high.

Another well known historic case is the encouragement of war gardens by the governments of multiple nations embroiled in World Wars I and II. These were intended to boost home front morale and supplement civilian rations with fresh produce grown wherever ready hands and fertile soil were available, including in public parks (also in the above-mentioned allotments (Image 1). Over 40% of the vegetables consumed in the U.S. during wartime may have come from these gardens.⁶ Renamed "victory gardens" by the winners, they continued to enrich citizens' diets in Europe well into peacetime, until postwar affluence eventually filled shelves with industrially-produced alternatives.



New York City

In the 1960s, United States federal subsidies for new suburban motorways and housing (among other factors) encouraged financial divestment and residential flight from American cities, leaving many urban cores disfigured by abandoned buildings and vacant lots. New York City was one of the most prominent victims of this neglect, with many once-private lots transferred to city ownership through tax foreclosure. In response, the city's Parks Department, under Commissioner Thomas Hoving, began a 'vest-pocket park' campaign to transform empty lots with community input, marking a clear shift from the infamously top-down approach of previous Commissioner Robert Moses.⁷

Building on this, from the early 1970s onwards, neighbourhood groups began organising activities to transform crime – and litter-blighted spaces into sociable, beautiful gardens serving their local communities. In 1973, a local group called the Green Guerrillas founded New York's first community garden on a city-owned plot on Manhattan's Lower East Side (Image 1). Such bottom-up efforts earned the appreciation of officials, who in 1978 formalised their support for community gardening through the creation of the GreenThumb programme within the City's Department of General Services. Federal community block grants provided the core funding.⁸

Over the subsequent decades, New York's GreenThumb network of community gardens (now administered by the City's Department of Parks and Recreation) has grown to become the largest of its kind in the U.S., with about 545 gardens on public and privately owned sites across all five of the city's boroughs, and 20,000 active volunteer gardeners at last count.⁹ The programme's reach and longevity have been cited as inspiration for many other community gardens around the world. In one prominent example, Paris's *Main Verte* programme, now a 15-year-old success in its own right with 119 registered *jardins partagés*,¹⁰ derived its name and basic operating principles from New York's.

The many achievements of the GreenThumb programme have not come without challenges. Indeed, the story of community gardening in New York City has been characterised by periods of conflict and struggle, mostly around security of site tenure (Image 2). In this way, the city's exemplary community gardening system, forged in the crucible of urban fiscal crisis, also offers an important case study of how, in more prosperous times, community gardens benefit from proactively demonstrating their value and cultivating their support networks.

On several occasions, most visibly during the mayoralty of Rudy Giuliani (1994-2001), community gardens located on city-owned land have faced the prospect of displacement when their sites are designated for redevelopment (often for much-needed housing). At key points, civil society organisations, such as the Trust for Public Land and the New York City Restoration Project have played an intermediary role between city agencies and gardening groups, sometimes raising funds to buy the garden land outright, and arranging legal structures for stewardship in perpetuity. Over the years, GreenThumb administrators have developed a detailed and transparent licensing system so that all parties understand their rights and obligations, including duration of tenure, from the start of any new garden. In 2015, the administration of Mayor Bill de Blasio transferred 34 formerly temporary gardens to GreenThumb, "the largest single addition of permanent community garden space in more than a decade", according to the programme's Director, Bill LoSasso.¹¹

Nevertheless, says Susan Chin "Most policy makers and the public assume we should all seek the highest and best value [for land], which typically means [the] economic as opposed to the social value of community gardening". Thus, "gathering and organizing the information from the work it takes to grow food is crucial when making a case for the value of community gardening".¹² The Design Trust for Public Space, led a six-year (2009-2015), multi-partner initiative called Five Borough Farm, which was the first comprehensive survey of New York City's diverse urban agriculture ecosystem.

1. The Liz Christy Community Garden, founded in 1973, was New York City's first official community garden. (Photo: Donald Loggins).

2. A peaceful protest in front of one of New York City's government buildings, in support of a community garden slated for redevelopment, 2016. (Photo: Elizabeth Street Garden, www.elizabethstreetgarden.org).

Farming Concrete Toolkit

What is it?

Website created by and for urban farmers and gardeners in collaboration with Design Trust for Public Space and Farming Concrete to provide a tool to the community for documenting the impact of urban farming and gardening.

What does it do?

- Measures your harvest, from red peppers to happiness
- Platform for farmers and gardeners to contribute their knowledge and accomplishments
- Helps you track your output to showcase the benefits of your farm or garden, improve and share your practice, and raise awareness of your impact.
www.farmingconcrete.org/toolkit/



In complement to photographic and written documentation of the city's current urban agriculture activities – including, but not limited to the approximately 80% of community gardens that grow food¹³ – and strategic policy recommendations, Five Borough Farm focused on metrics. Practically, this meant creating “a shared framework and tools to allow users to track urban agricultural activities citywide, and [evaluate] their social, health, economic, and ecological benefits”. The diverse benefits to be measured include waste diverted from landfill to compost, number of garden visitors and where they live, and even children's changed attitudes to fresh food.

The resulting online toolkit was produced in collaboration with Farming Concrete, a parallel initiative with shared goals, and subsequently took on its name. The toolkit includes a document as well as videos that describe in detail how each different type of data can be gathered by gardeners. Once the necessary information has been assembled

offline, gardeners can create a free account to enter it into a secure online storage area called ‘Barn’, and also use a data processing and packaging programme called ‘Mill’ to create reports they can share with their members, neighbours, funders or other interested parties (Image 3).

GreenThumb Director LoSasso calls the Farming Concrete resources a “valuable tool in translating the anecdotal to the quantitative in terms of production, value, and more” and says they have been “beneficial to GreenThumb as we use them to help plan new garden initiatives and measure the impact of community gardens on neighborhoods. As a result of these projects, new gardens have been started and existing gardens have been expanded and they all have a better roadmap toward achieving success”.¹⁴ The tools are having an impact well beyond New York City too; and the Design Trust reports that the 360 gardens in 65 cities around the world have used ‘Barn’ and ‘Mill’ so far.¹⁵

3. A user of the Farming Concrete toolkit, the Temple of David Community Garden, East New York, Brooklyn. (Photo: Rob Stephenson. Courtesy of the Design Trust for Public Space).

London

The Olympic and Paralympic Games are often used by their host cities as catalysts for ambitious urban projects that might be too costly or large scale to be realised under normal circumstances. This was certainly the case with London, which in 2005 won its bid to host the Summer Olympics in 2012 with the promise of the regeneration of a large swathe of east London, and a suite of improvements to its public transport system. A savvy coalition of sustainable food advocates—the London Food Board, an appointed group of industry experts who advise the Mayor of London and Greater London Authority (GLA) on food policy, and Sustain, a wide-reaching non-profit “alliance” representing about 100 public interest organisations working towards improved food and farming¹⁶ — seized upon the Olympic hosting opportunity to support their own aspirations to increase spaces for food growing in the British capital.

The resulting initiative, called Capital Growth, was devised as part of the first London Food Strategy, published in 2006. Its premise was clear, and ambitious: to create 2,012 new community food-growing spaces across London by the Olympic year. Initial funding for the campaign came from the Mayor of London and the Big Lottery’s Local Food Fund.¹⁷

Formally launched in 2009, near the start of Boris Johnson’s time as mayor, the campaign successfully achieved its target number of community food growing spaces by 2012. These were spread across the city on a wide variety of sites, including a range of different allotment configurations, farms, schools and home growers (Image 4).

Early advocacy meant that the city’s strategic planning policy, the London Plan, explicitly supported community food policy. Maddie Guerlain explains that in London’s relatively fragmented systems of governance, this high level championing was “key to enabling Capital Growth to effectively influence local authorities to also include support for community food growing in their own planning policy”.¹⁸

The campaign had the good fortune of building upon a strong local gardening culture, long cultivated and supported by organisations like the Royal Horticultural Society, whose at the time four-decades-strong London in Bloom green space improvement competition joined the Capital Growth effort in the run up to 2012.¹⁹ Other collaborating organisations, like the Federation of City Farms & Community Gardens, have been active in London since the 1960s. Its multi-sector, coalition-based approach undoubtedly assisted its survival across multiple mayoral administrations.

Since the Olympics, Capital Growth has established itself as London’s main network for community food growing, with about 2,200 active growing spaces, of which about 60% are community growing spaces and farms.²⁰ Its core mission chimes with ascendant public interest in England (and beyond). Guerlain notes: “there are many signs that people care about what they eat and are keen to engage more in food systems. This is hugely encouraging for community gardens in London as the more people understand food systems, the more likely they are to value food production, whether around the corner in a local garden or from a farmer outside the city”.²¹ Lisa Wilkinson, who manages a series of ‘kitchen gardens’ in the London borough of Kensington and Chelsea comments that through these community food-growing projects, “Residents enjoy a better relationship with each other and share recipes and advice. This really helps with reducing social isolation, and a better understanding of different cultures” (Image 6). Wilkinson cites Capital Growth’s online list of community gardens around London and networking events “where we can meet and share ideas” as useful tools for her own work.²²

Capital Growth marries its community capacity building initiatives with high-level advocacy. One of the latest examples of this is its free online ‘Harvest-ometer’ tool, developed in 2013. As the name suggests, the Harvest-ometer aims “to help people record and keep track of their harvest, while also gathering data on food production in the city as a whole.” With a narrower focus than the tools developed in New York, it may also be more straightforward to use. The recorded data, including the monetary value and equivalent number of meals for the recorded amount and type of produce, “can be used to identify trends and indicate productivity, demonstrate the financial value of urban food growing, and... influence policy and decision-makers”.²³

The tool forms a key part of Capital Growth’s post-Olympics target: a campaign to “Grow a Million Meals” within London’s community spaces. Extrapolating data entered into the Harvest-ometer, Capital Growth estimate that their existing network could grow a remarkable 380 tonnes of fruit, vegetables and honey.²⁴

Feedback from users has been enthusiastic. “Harvest-ometer [has been] of great use to weigh and record our produce thus helping us assess our productivity. It gives individual plot holders the opportunity to see how much they have grown. Seeing the totals in terms of finance and the number of meals give an incentive and can help to set targets. The list of produce can even help to provide ideas for next season’s growing”, reports one community gardener.²⁵



4, 5, 6. School children plant and harvest edible crops at the Dalston Eastern Curve Garden, Capital Growth space #638, opened in 2010 in the London Borough of Hackney. (Photos: Dalston Eastern Curve Garden, www.dalstongarden.org).

Harvest-ometer

What is it?

An online tool created by Capital Growth, London's Food Growing Network, for storing yield data and calculate its monetary value.

What does it do?

- Record and compare your harvest results and data
- Calculate monetary values based on your data
- Allows you to input your data to create customised graphs.
www.capitalgrowth.org/the_harvestometer

Closing Thoughts

New York City's GreenThumb programme and London's Capital Growth initiative have positively transformed hundreds of public spaces, strengthened community networks and engaged tens of thousands of volunteers across their respective cities. Such programmes form part of a global civic agriculture movement, in which urban food-growing spaces and organisations make an important contribution to cities' social and economic infrastructure in both advanced and developing economies.²⁶

Despite their historic achievements, neither is resting on their laurels, and—with the critical support of local partners—are developing or using new tools that help them measure and share their impacts. Tools like these help community gardeners to engage with the stakeholders who will ensure their continued resourcing and relevance, and to set clear goals for their future development, towards greener and more inclusive urban spaces.

Whilst GreenThumb is administered by a government department, and Capital Growth by a charitable organisation, both have benefitted from and helped to build strong, place-based networks of civil society organisations, which have evolved over decades. This may be the most important lesson they can contribute to international discussions about sustainable urbanism. As Nobel Prize winner Elinor Ostrom and her colleagues once put it: "Institutional diversity may be as important as biological diversity for our long-term survival".²⁷ 

References

¹ Guitart, Daniela et al. "Past results and future directions in urban community gardens research". *Urban Forestry & Urban Greening*, Volume 11, Issue 4, 2012, 364–373. <http://doi.org/10.1016/j.ufug.2012.06.007> is a useful survey of the peer-reviewed English language literature on community gardening.

² Greater London is comprised of 33 local authorities: 32 boroughs and the City of London, its historic financial district.

³ Author correspondence with Maddie Guerlain, 24 March 2017.

⁴ Theoretically. Provision has not been mandatory within London since 1963 and waiting lists run to the tens of thousands. British allotment law is detailed and can be challenging to navigate. The Federation of City Farms & Community Gardens provides a helpful factsheet: <https://www.farmgarden.org.uk/resources/allotment-law-community-growing-factsheet>

⁵ The British National Allotment Society claims that "during times of recession people turn back to the land, wanting to reconnect with something tangible while at the same time experiencing home-grown food, which costs less and is better for us." <http://www.nsalg.org.uk/allotment-info/brief-history-of-allotments/>

⁶ Lawson, Laura. *City Bountiful: A Century of Community Gardening in America*. Berkeley: University of California Press. 2005.

⁷ NYC Department of Parks & Recreation, "History of the Community Garden Movement". <https://www.nycgovparks.org/about/history/community-gardens/movement>.

⁸ Ibid. Housing and Urban Development block grants still form the core of GreenThumb's budget, although in recent years this has been supplemented by US\$1million in expenses funding. Author correspondence with Bill LoSasso, 29 March 2017.

⁹ Author correspondence with Bill LoSasso 6 February 2017. And those are just the most publicly-accessible gardens that are registered with GreenThumb; 117 other gardens are tended by students and teachers on Department of Education properties, and a further 245 within social housing estates maintained by the city's Housing Authority (NYCHA) according to Cohen, Nevin et al, *Five Borough Farm: Seeding the Future of Urban Agriculture in New York City*. New York: Design Trust for Public Space, 2012.

¹⁰ Author correspondence with Isabella Fieschi, 3 March 2017.

¹¹ Author correspondence with Bill LoSasso, 29 March 2017.

¹² Author correspondence with Susan Chin, 28 March 2017.

¹³ GrowNYC 2009/10 survey.

¹⁴ Author correspondence with Bill LoSasso, 29 March 2017.

¹⁵ Author correspondence with Susan Chin, 28 March 2017.

¹⁶ "About Sustain" <https://www.sustainweb.org/about/>

¹⁷ This funding is now supplemented by grants from several charitable trusts.

¹⁸ Author correspondence with Maddie Guerlain, 24 March 2017.

¹⁹ Author correspondence with Peter Holman, 23 January 2017.

²⁰ Sustain, *Capital Growth Annual Monitoring Survey 2013*, London: Sustain, April 2014.

²¹ Author correspondence with Maddie Guerlain, 24 March 2017.

²² Author correspondence with Lisa Wilkinson, 1 April 2017.

²³ Sustain, *Reaping Rewards II: Measuring and Valuing urban food growing*, London: Sustain, April 2016.

²⁴ Sustain, *Reaping Rewards II: Measuring and Valuing urban food growing*, April 2016.

²⁵ Tim Anderson, Maryon Park Community Garden, quoted in Sustain, 2016.

²⁶ For more information on global trends in urban agriculture, and how they apply to Singapore, please see Ichioka, Sarah Mineko. *Food Security and Community Bonding in a Globalised City-State: The Case for Urban Farming in Singapore*. CityGreen Issue 12, pp 34-41. April 2016. <http://doi.org/10.3850/S2382581216010942>

²⁷ Ostrom et al. "Revisiting the Commons: Local Lessons, Global Challenges". *Science* 284, 278 (1999); DOI: 10.1126/science.284.5412.278

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