The Role of Urban Agriculture in Building Resilient Cities: Examples of building resilient neighbourhoods in London

The concept of resilient cities is increasingly heard today. Whereas in southern countries access to food is a major motivation for people to engage in urban agriculture, in northern cities, such as London, people are driven more by environmental reasons such as the damaging effects of excessive food miles. Regardless of the motivation, urban agriculture is a positive step toward greater resilience.

In his publication Growing Better Cities, Mougnot (2006) presents an ideal situation of urban agriculture integrated in a resilient city. He imagines a city as an ecosystem. The International Development Research Centre (IDRC) listed a number of key aspects of such a self-sufficient city: 1) urban agriculture integrated into urban management (governmental recognition), 2) self-reliance through local food systems (local markets and food security through cooperative of local producers), 3) available green spaces that provide ecological and social benefits to both the rich and the poor and 4) well-established resource recovery, in which waste is reused as bio-compost.

A Transition Town (or village / city / forest / island) is a community that comes together to respond to the challenges and opportunities of peak oil and climate change and kick off a Transition Initiative. A Transition Initiative seeks to address the question: “For all those aspects of life that this community needs in order to sustain itself and thrive, how do we significantly increase resilience (to mitigate the effects of peak oil) and drastically reduce carbon emissions (to mitigate the effects of climate change)?”

This should result in a coordinated range of projects across all areas of life that strives to rebuild the resilience lost as a result of cheap oil and reduce the community’s carbon emissions drastically.

This ideal situation has not yet been fully attained by any city in the world. However, some areas in London have already advanced quite far, especially since the launch of the “Capital Growth” Initiative in November 2008, which aims to turn 2,012 pieces of land into green spaces to grow food in the capital city by 2012 as part of the Climate Change Action Plan.

Transition Town in Brixton (TTB) seeks to develop a community working together towards local sustainability, and in the wake of peak oil and climate change towards drastically reducing its carbon emissions (see box). Hopkins, founder of TTB in 2000 explains: “The concept of resilience is central to TT, and is seen as the ability of a system, from individuals to the whole economy, to hold together and maintain their ability to function in the face of change and shocks from the outside.”

The Abundance Project of TTB, which was started in 2007 in the Guinness Trust Estate (off Loughborough Park Road), is a demonstration project on community allotment gardening. Its first products were harvested this year. Residents of the estate have become involved in the project, which is a big achievement for the organisers. All crops have been consumed on site except for some rocket that was donated to a box scheme to be sold.
Even though Brixton is still not much more self-sufficient than when the project started, interest and discussions have been generated and the food growing is seen as sensible and beneficial. There is still not enough participation on the estate, but about nine growers have claimed space so far. In addition, over 50 community members engage in all kinds of other activities, such as a green mapping project to identify other green spaces for more agriculture, development of a local currency (the Brixton pound), and the Energy Descent Action Plan to decrease Brixton’s energy use. This is the strategic goal for the year 2009. TTB aims to create a local food system that decreases food miles and offers green spaces that will provide ecological and social benefits for the whole community (thus already satisfying two aspects of Mougeot’s self-sufficient city).

While TTB is still exploring how to improve local production and consumption, another grassroots organisation, Growing Communities in East London, already supports local food production by community members that benefits the local economy. This organisation based in the London borough of Hackney involves 25 small-scale local organic producers and provided 450 households with fresh vegetables in 2007. The organisation has an annual turnover at the local market of £600,000 and an organisation turnover of £290,000, thanks to the work of 17 part-time employees and 48 volunteers. In the local community gardens 230 bags of lettuce are produced per week. Other products come from local farms. A survey showed that 89 per cent of members walk or cycle to pick up their bags each week, in order to reduce carbon emissions and food miles.

The organisation offers a weekly farmers’ market and vegetable box schemes of products which are produced in the local community gardens and by local farms. Growing Communities also seeks to address the urgent problem of climate change: “Since food and farming account for at least 30 per cent of worldwide greenhouse gas emissions, the high dependency on fossil fuels needs to be reduced. People need to connect again to the understanding of growing, preparing and cooking food, so that their fragility towards the dependency on the food system can be reduced” (Brown, 2008). This is why the organisation focuses on ecological production and distribution: “the distribution should involve environmentally friendly and low carbon resource use, foster the community, promote knowledge and strive to be economically viable and independent” (Brown, 2008, Growing Food for London Conference).

Even though Growing Communities seeks less extreme adaptation to peak oil than TTB, it shows how people gradually can be convinced to buy locally produced and organic food. Growing Communities aims to produce enough to feed Hackney by 2040, such that the import of European and other global products will be significantly reduced, and urban and periurban food provision increased (Brown’s presentation, Growing Food for London Conference, 2008).

The above-mentioned two examples seek to apply ecological agriculture as an alternative to conventional agriculture. Permaculture (permanent agriculture) as developed by the Australian ecologist Bill Mollison goes further and seeks to design integrated ecological human habitats and food production systems by learning from the natural regenerative process in nature and by emphasising the synergetic combination of multi-purpose plants to provide sustainable year-round production.

This approach has been applied in Hornsey Rise in Islington, London. Alpay Torgout and other members of Naturewise converted empty green space of the Margaret McMillan Day Nursery school into a Forest Garden (permaculture), which is designed to be a low-maintenance system. Naturewise focuses on environmental awareness and enabling people to move towards more sustainable lifestyles (Burnett, 2008). The land was designed as an edible landscape based on the seven layers or niches identified by Robert Hart from his observation and replication of the structure of a natural forest (Agroforestry Research Trust, 2009; Burnett, 2008).

There are many of these examples in London.

The main users of the space in Margaret McMillan Nursery are 200 young school children from diverse backgrounds, who use the space on a daily basis. They learn to produce, and are eventually allowed to eat, the fruits and vegetables. The teachers use the garden for education, and some administration staff make compote from the apples and plums or take the fruits and vegetables home. During open days visitors from the neighbourhood and other parts of London come to learn. Two to seven volunteers per month assist in the management of the Forest Garden (Claire White, 2009). The Forest Garden in Hornsey Rise is a model in the city environment that offers medicinal and edible produce and permaculture courses to the community. This and other Forest Gardens in London, including OrganicLea and Hackney Edible Forest Garden (a community operation run by volunteers on Hackney Marsh), are all part of a growing network of London permaculturists (Naturewise, 2009).

Resilient cities

Luc J.A Mougeot imagined the city of the future as a resilient and self-sufficient city that reaches the stage of ‘ecosystem’ through an extensive use of urban agriculture. The provided examples show how local initiatives are striving to achieve this ideal, how agriculture benefits the local community through the provision of locally grown fresh food and how it benefits the environment by reducing waste through the promotion of composting. Local initiatives are also tackling the problem of pollution by increasing local biodiversity and reducing transport. However, to make greater strides towards the city of the future, it is necessary to reach more citizens. What is needed is to enhance the understanding of citizens on how to grow diversified, ecological food in a productive way, and assure stable and year-round harvests. It will also be necessary to recognise the potential of the urban spaces...
available in the city.

Given the fact that Londoners' eating habits produce nearly 19 million tonnes of greenhouse emissions\(^1\) per year it is important for a city the size of London to become a more sustainable environment with ecological human habitats and food production systems. The three examples given are part of the bigger picture that includes the Capital Growth campaign and many other emerging initiatives that are working towards reducing harmful emissions, saving money and also throwing away less food. The London's Food Sector - Greenhouse Gas Emissions report estimated that Londoners throw away a third of the food they buy: London's food waste alone results in some 6.3 million tonnes of greenhouse gases a year - more than the entire national output of Iceland.

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Note
1) The Capital Growth campaign is run by Sustain’s London Food Link - a network of organisations and individuals with members as diverse as farmers, food writers, caterers and community food projects (Sustain, 2009). By following the link http://www.projectdirt.com/page/capital-growth it is easy to discover the locations of suitable land patches and current urban agriculture projects in London, as well as information on the organisations involved.
2) Naturewise workshops: Grafting and pruning of apple trees and creating a forest garden; Forest Garden principles and application – redesigning and succession (Naturewise, 2009).
3) The first report to examine the impact of what London eats on climate change was commissioned by the Greater London Authority and the London Development Agency, supported by London Food, compiled by Brook Lyndhurst and published in February 2009.

References

Brown, J. Growing Communities, Presentation for “Food for London” conference, June 2008


White, C. (2009) interview. [Conducted at Margaret McMillan Nursery School by Dilyara Satdinova, 9 May 2009]