

## URBAN AGRICULTURE IN LONDON: RETHINKING OUR FOOD ECONOMY

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### 1. Introduction

London's food system exemplifies and symbolises its fundamental unsustainability. The city's ecological footprint is 125 times its surface area, requiring the equivalent of the entire productive area of Britain to sustain itself; each year, Londoners eat 2,400,000 t of food (Girardet 1995). Twenty-nine percent of vegetables and 89% of fruits are imported (MAFF 1998); in 10 years the amount of food transported along UK roads has increased by 22% and the average distance travelled by 46% (DETR 1998g). London creates 883,000 t of organic waste a year (Murray 1998), of which households contribute 607,000 t or 40% of their total waste. The vast majority is landfilled, creating polluting leachate and methane (Murray 1998). This said, around 37% of the households compost at least some waste (DETR 1998e), though how much is not clear.

The food industry contributes significantly to the city's GDP (gross domestic product), and accounts for 11% of total jobs (Heasman & Rumfitt 1996). However, the jobs are generally poorly paid and of low status. Four supermarkets account for 67% of food purchases (Mitchell 1998). The London farmer is a dying breed and most commercial agricultural activity is chemical-intensive.

**Table 1:** *Basic facts and figures*

	<b>The United Kingdom</b>	<b>London</b>
<b>Area</b>	242,910,000 km <sup>2</sup>	1578 km <sup>2</sup>
<b>Population</b>	58,801 million	7 million
<b>Density</b>	242 people/km <sup>2</sup>	4,480 people/km <sup>2</sup>
<b>Population growth</b>	3.5% between 1987 – 1997	4.6% since 1988
<b>Urban population</b>	89% on ca. 7.7% of the land (Comedia/Demos 1995)	
<b>Main economic sector</b>	Services (Office for National Statistics 1999)	Financial and business services
<b>Main employment sector</b>	Services (ONS 1998)	Services - particularly arts, leisure and tourism
<b>Agricultural workforce in % of population</b>	2%	0.04% (around 3000 people)
<b>Climate</b>	Temperate	Temperate

The agricultural work force is ageing. Only 2% of the UK population is directly involved in farming (Hird 1997) with a further 60,000 people in commercial horticulture (Lantra 1998). Young people are moving to the cities to find decent jobs and living conditions (Hird 1997).

Related to the above are the diet of the Londoners and their physical and mental health. Eating more fruit and vegetables could reduce cancer by 20% (World Cancer Research Fund 1997) and heart disease by 30% (British Heart Foundation 1999). Obesity, heart disease and diabetes afflict the poorest most (Leather 1992), particularly black and Asian people (Anon. 1995). Such disease rates are much higher in deprived areas (Bardsley & Morgan 1996) where healthy food is neither accessible nor affordable (DETR 1998a). Many housing estates are “food deserts” without shops selling fresh vegetables (DETR 1998a). Processed, fatty, sugary food is disproportionately cheap (Lobstein 1997).

The dependence on a globalised food economy is also disconnecting us from nature. While 93% of British children know how to play computer games, only 54% can boil an egg (MORI 1993). Mental illness is another concern (The Health of Londoners Project 1998), reflecting the inherent unsustainability of our lifestyles. Never before have we been so interested in food. Never before has there been so much choice. At the same time, thinness is portrayed as the ideal, and anorexia and bulimia are increasing.

More positively, the current debate around the genetic modification of foods has catalysed enormous public concern and may ultimately favour the organic movement. Organic food sales are rising dramatically<sup>1</sup> (Soil Association 1998) and marketing alternatives to the supermarket are proliferating.

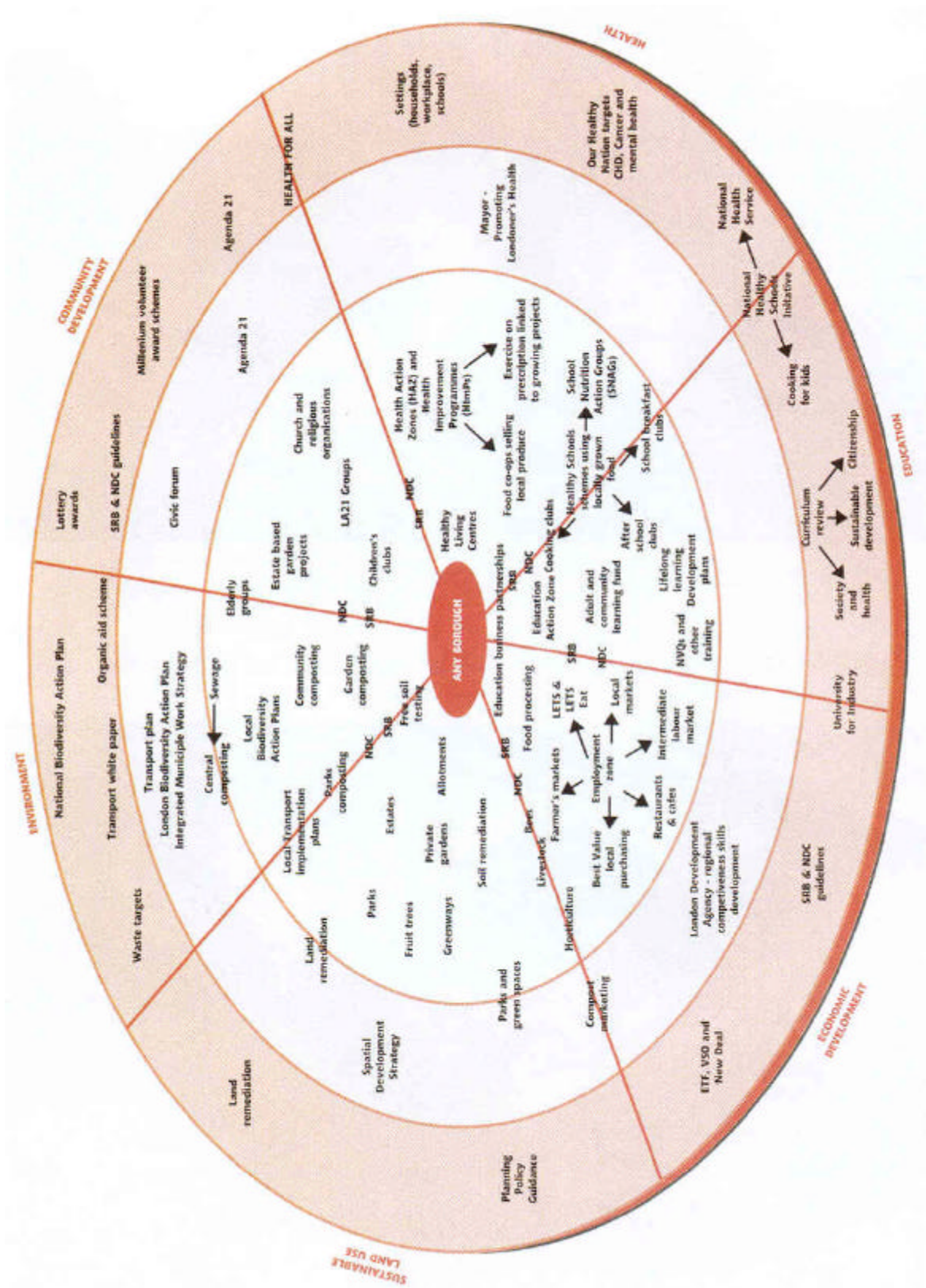
## **2. Urban food growing in London**

London contributes very little to the total UK food supply, but the range of activities and foods grown is broad.

### **2.1 Agricultural activities**

#### ***2.1.i Commercial farmland***

There are 13,566 ha (MAFF 1997) of farmland on the Greater London fringe. This area is in decline (London Planning Advisory Committee 1995) on account of development pressures. The requirement to reduce production means that agricultural land is increasingly put to set-aside, or other uses. 500 ha are under fruit and vegetables, contributing £3 million to the economy (MAFF 1998)<sup>2</sup> and employing about 3,000 people (ONS 1998)<sup>3</sup>.





*City farm (Picture Sustain)*



*Allotment gardening (Picture Sustain)*

Horticulture takes place mainly in the Lea Valley area, which extends northeast 30-40 km beyond central London. Here, glasshouses produce salads, vine crops, and non-edible plants (Lea Valley Growers Association 1993). While larger enterprises are surviving, smaller ones are struggling - a familiar situation across the agricultural sector.

### **2.1.ii County farms**

Some outer London authorities still own farms. Although run as commercial enterprises, some also host occasional school visits. Council-owned farmland is also leased out to individual tenants, often through commercial property managers.

### **2.1.iii Allotments**

There are around 30,000 active allotment holders gardening on 831 ha of land, of which 111 ha are in inner London (Crouch 1997). In inner London, 4% of the total is vacant, and there are long waiting lists for plots. In outer London, the vacancy figure stands at 18% (Crouch 1997), reflecting perhaps the fact that many houses in the area have large gardens. Allotment sites are largely owned and managed by local authorities, which have a duty to provide, maintain and promote them. Inner London authorities, while exempt from this duty, often provide allotments, and some privately-owned sites (6% are owned by railway and other companies) are also available. (Crouch 1997). Allotments have been protected by law since 1908 and the government has recently joined local authorities to *promote* in addition to simply providing for allotments. Traditionally, allotment gardening has been a past-time for low-income or retired men. In 1993, only 6% of plot holders in the UK were under 35, and 65% were over 50. This is changing: new entrants are often younger and from higher occupational classes (Crouch 1997).

### **2.1.iv City farms and community gardens**

The City Farms movement began in the 1970s. There are 65 in the UK, with 8 in London ranging from 0.25 to 2.5 ha in size. Although there is usually some horticultural production, animal keeping predominates. City Farms tend to be funded through charitable and municipal sources and managed by the local community. City farms serve primarily a community and educational role. For many urban children, a visit to the farm is the first time they encounter agricultural animals and food growing in the ground.

There are 77 community gardens in London affiliated to the Federation of City Farms and Community Gardens (FCG & CG) and there are likely to be others which are not affiliated. They are located throughout the city, on housing estates, near railways, on temporary land and in community centres. Community

gardeners grow mainly flowers and ornamental plants, although some food growing takes place.

Together, London's city farms and community gardeners draw in around 650,000 visitors a year, about 10% of London's population (FCF & CG 1999).

### ***2.1.v Private gardens***

Half of London's 2.8 million households have gardens (London Pride Waste Action Programme 1997). Together, they comprise nearly 20% of Greater London area (Dawson & Worell 1992) or 30,455 ha. Research indicated that 14% of the London's garden area was allocated to fruit and vegetable production in the 1950s (Wibberley 1959) but it is unlikely that the present day matches anything like this amount.

### ***2.1.vi School gardens***

Some schools have dug up the tarmac of their playground and created small growing beds. The amount they grow is usually minute, and the purpose is educational rather than nutritional.

### ***2.1.vii Orchards***

The European Common Agricultural Policy has dramatically reduced the number of orchards. Currently, there are around 15 orchards in and many more around London (Common Ground 1999).

### ***2.1.viii Parks***

Parks serve primarily a recreational function and, as such, there may only be a limited role for individual food-growing activities. Nevertheless, there are a few community food-growing projects in London's parks, often located near management buildings.

### ***2.1.ix Temporary/vacant land***

Officials can be cautious about letting people use temporary land for fear of gardeners resisting relinquishing control to developers. However, there are community gardens located on such land.

## **2.2 Urban agricultural production**

### ***2.2.i Actual contribution***

Roughly 8,400 t of vegetables are produced commercially, 7,450 t<sup>4</sup> from allotments and 27 t of honey from bees. The amounts of vegetables, meat, milk and eggs from gardens, community orchards and city farms are unknown.

### 2.2.ii Potential contribution

Estimates of the proportion of various land types, which could be made available, combined with an estimated “average yield/ha” gives a rough indication of the potential production. The calculation is based only on fruit and vegetable production; other agricultural uses would generate different results. The calculation does not take into account the potential yields from window boxes, rooftops, street fruit trees and other areas where food could be grown.

**Table 2: Potential vegetable and fruit production in London**

Land type	Land area	% for urban agriculture	Area for urban agriculture
Agricultural land	13,566 ha	50%	6783 ha
Other greenbelt land	<sup>5</sup> 40,034 ha	20%	8007 ha
Allotments	831 ha	100%	831 ha
City farms	51 ha	<sup>6</sup> 25%	13 ha
Community gardens	20 ha	25%	5 ha
Public open space	14617 ha	5%	731 ha
Derelict/vacant land	1388 ha	1%	14 ha
Gardens	38,014 ha	<sup>7</sup> 14%	5322 ha
<b>Total</b>	<b>108521 ha</b>	<b>20%</b>	<b>21706 ha</b>

Using a productivity level of 10.7 t/ha<sup>8</sup>, London could produce around 232,000 t of fruit and vegetables. Taking the WHO recommendation to eat 0.5 kg of vegetables and fruit a day, the amount potentially available would supply Londoners with 18% of their intake.

### 2.2.iii Marketing

Most of the produce grown in the Lea Valley is bought by supermarkets, which distribute it across the region. Home-grown produce is either eaten by the growers and their families or shared among friends. Some is exchanged through local exchange trading schemes (LETS).

## 2.3 People and organisations involved in urban agriculture

### 2.3.i Organisations

The National Society of Allotment and Leisure Gardeners represents and promotes the interests of allotment gardening since 1930. Almost all city farms are affiliated to the FCG & CG, which works to promote their interests. The charity Common Ground promotes the “community orchard” (small, locally-managed organic orchards). The Lea Valley Growers’ Association represents commercial horticultural production in the Lea Valley. The Permaculture Association of Britain promotes sustainable food growing, both urban and rural. The Soil Association, which promotes organic agriculture, supports urban food

production as part of its campaign to promote “local food links”. The Henry Doubleday Research Association (HDRA) runs a “Grow your own organic fruit and vegetables” campaign, while Thrive promotes gardening of all kinds as a form of therapy. The Allotments Coalition Trust has recently been set up to promote allotment gardening. Sustain’s<sup>9</sup> City Harvest project works to promote and research food growing in London.

### **2.3.ii Gardeners**

Gardening is extremely popular<sup>10</sup>: 4/5 of British adults claim they are gardeners and 39% describe themselves as keen (Gardening Review 1997). Fourteen percent of Londoners grow some fruit and vegetables; this rises to 21% among the over-65s and falls to 5% for the 20-24 year-olds (Gardening Review 1997). People with higher incomes are more likely to grow their own vegetables (18%) than people in the lowest income groups (11%).

## **3. The role of urban agriculture in sustainable development**

Much of the evidence on the benefits of urban farming is anecdotal; however, it does suggest that urban agriculture may well make a positive contribution to London’s overall sustainability. It also points towards what urban food growing *could* achieve.

### **3.1 Urban agriculture and health**

#### **3.1.i Current contribution**

One national survey shows that allotment growers believe gardening improves their health (Saunders 1993). Also, US research suggests that food gardeners consume more fresh produce and enjoy better physical and mental health than non-gardeners (Anon. 1991).

The therapeutic benefits of horticulture are increasingly recognised. The charity Thrive lists 136 gardening projects with a mental health remit in London. Examples are the *Natural Growth* project in North London, which works with asylum-seekers and victims of torture, and the *Healing Gardens* project, which works with terminally and chronically ill clients. Some people find that it is the solitude of the allotment and the chance to get away from the stresses of life which is essential to their well-being (Crouch & Ward 1994).

The perceived health risks of eating urban produce can constrain people’s involvement. While there has been little UK research on this, a study of vegetables grown on allotments near sources of heavy metal pollution concluded



that “the dietary intakes of these elements are not a cause for concern” (MAFF 1998). Balanced against the potential dangers of eating urban produce are risks from vegetables on sale from commercial rural farms (MAFF 1997)<sup>11</sup>. Nevertheless, the risks from soil contamination should not be underestimated.

### ***3.1.ii The potential***

There is growing interest among UK policy-makers and practitioners in the role of urban agriculture in promoting health. The potential of allotment gardening is considered in the Government’s policy paper *Our Healthier Nation* (Anon. 1998). There are also numerous Government health-oriented schemes (e.g. Health Action Zones, National Healthy School Schemes, Healthy Neighbourhood and Work Schemes) which stress the importance of community involvement and a holistic approach to health. One Health Action Zone in East London will incorporate food growing into its cardiovascular disease prevention programme.

## **3.2 Urban agriculture and the environment**

### ***3.2.i Current contribution***

The mainly hydroponics-based commercial horticulture in the Lea Valley is highly energy-intensive (Lea Valley Growers Association 1993, 1999) and most produce is sold to supermarkets which distribute on a centralised basis. Non-commercial food growing presents a mixed picture. One national study suggests that 38% of allotment growers drive to their plots, 75% use insecticides and one-third, weed-killers (Saunders 1993). This may negate the environmental contribution they make by growing the food. Many other growers, however, walk to their plots, compost their waste, and garden organically. Many community food-growing schemes have clear environmental aims: to promote biodiversity through organic growing, to reduce waste through recycling and composting, and to minimise food transportation through local food production.

There is a fast-growing interest in organic gardening (HDRA 1999). Food seems to catalyse environmental concern, indicated by the rise in organic food sales. Nationally, chemical use in gardens is growing<sup>12</sup> (British Agrochemicals Association 1993, 1999), on account of herbicides used on lawns and hard surfaces. Meanwhile, insecticide and fungicide sales - more likely to be used by food growers - have reduced from 440 t in 1992 to 266 t in 1997.

Composting is a major environmental benefit of food-growing schemes. One South London survey suggests that 70% of allotment gardeners compost their waste, compared with just 30% of household (largely non-food growing) gardeners (Community Recycling in Southwark Project 1999). Food growers

also reduce their non-food waste by substituting own grown vegetables for packaged foods. As half the households in London do not have a garden and most people have no allotment, community composting on communal land is an alternative. A number of such schemes are already being developed on housing estates in London, but they face a number of logistical and motivational problems (*Ibid.* 1999).

Centralised composting schemes can deal with larger quantities. One Council in East England provides households with a separate bin for organic waste, which it picks up along with the ordinary waste (Murray 1998). There are two municipality-run schemes in South London and four bordering the city, which only compost green (non-food) waste and which sell the compost through garden centres. However, these schemes incur environmental costs, as the waste is trucked in from across London.

Sewage is another untapped source of compost. Thames Water produces and sells more than 30% of the anaerobically-treated sewage used in UK agriculture, and small quantities of sewage-based compost which it markets through garden centres. In 1996, Thames Water spread 37,000 t of sewage onto farmland (Evans 1996). Aerobic treatment and subsequent composting can produce a better product and is perfectly safe as a medium for food growing (National Composting Association 1999). In 1997/8, London<sup>13</sup> produced 117,000 t in dry weight (Symons 1998), of which around 78,000 t was dumped into the North Sea; as this option has recently been banned, Thames Water will now be burning this. Many technical and logistical problems must be overcome if London is to develop a composting strategy for all its green, food and sewage waste. These are not insuperable, however, given political will and adequate funding, and both will be needed by 2000 when the EU directive banning the landfilling of untreated waste becomes law (Murray 1998).

Experiments show that urban food production can play a significant role in reducing food transportation<sup>14</sup>. Organically managed, productive allotments can also promote urban biological diversity, as can unused sites which harbour wildlife (London Wildlife Trust 1998).

### ***3.2.ii The potential***

A range of schemes could further food growing. For instance, part of landfill tax revenue is earmarked for projects which benefit the environment. So far, £70 million has been channelled in this way, some to composting schemes (Waste Watch 1998). The Environmental Task Force, a government training scheme, also offers potential for food-growing activities.

### **3.3 Urban agriculture and the formal and household economies**

#### ***3.3.i Current contribution***

London's agricultural sector is squeezed between development pressures and a skewed system of agricultural support which favours large cereal producers over small growers. This is not a vision easily applicable to inner city London. Horticultural growers receive lower levels of agricultural support than any other farming sector (Hird 1997) and organic horticultural growers suffer from further obstacles.

There are no commercially viable community food projects in London; all rely on grant funding, volunteers or both. Although allotment gardening traditionally combined recreation with a means of supplementing the household budget, monetary savings are not considered important by most gardeners. Those new on the allotment scene tend to be younger, more educated, professionals (Saunders 1993). This suggests that, for future generations, cost savings are likely to be even less important.

Food production still saves people money, whether they value this or not, if input costs and output value are compared. For this reason, some organisations started community food-growing schemes with the aim of involving low-income groups. This has often proved difficult. Arguably, the middle-income groups have gained most from the informal food economy.

Community food growing does not appear viable in strictly economic terms, but the health and social benefits which such schemes yield can reduce the burden on welfare services. Added to these are the environmental gains and the costs avoided by engaging people in leisure activities which are *not* damaging. Moreover, a study suggests that, for every £ an organisation invests in a volunteer, it gains between £2 and £8 of work (NEF & FoE 1998).

#### ***3.3.ii The potential***

London's warmer microclimate and nearby markets mean that a food strategy for London could make a real contribution to London's regeneration and economic development. Salads, early season vegetables, "exotics" such as aubergines, unusual varieties and herbs perhaps yield most economic potential. While most job opportunities will come from sustainable agriculture on the urban fringe, there is room in the inner city for training schemes and alternative food-related economic activity.

There could also be a role for beekeeping. London will never be a major producer, but it could become a showcase for innovation and best practice, catalysing the revival of our flagging national bee industry.

**Honey production**

There are about 1,000 beekeepers in Greater London (Morton 1998). Yields vary from 8 to 30 kg per hive. Urban hives produce more than rural hives, because cities are home to countless plant species from all over the world (Carreck & Williams 1998). As a rough estimate,<sup>15</sup> London produces 27,000 kg of honey annually (10% of total consumption) valued at £15.7 million (Stenhouse 1998). British honey commands high prices in niche markets. Beeswax has an additional market value of £120,000, and honeybee crop pollination is worth £167.6 million (Carreck & Williams 1998). Beekeepers enjoy significant support from the MAFF, including free hive inspections and information (Carreck 1998).

Mushrooms also use limited space and some varieties can command high prices. In the UK, the gourmet mushroom industry is embryonic; over 99% of demand is met by imports (Young 1997). However, a pilot shiitake mushroom project underway in a deprived area of Glasgow in Scotland aims to be financially viable within five years, able to support up to three jobs and with annual mushroom production reaching 6,900 kg (Young 1997).

Primary production could further the development of cottage food-processing industries, making preserves, dried foods and so on, as some community projects are already doing. Food could be sold through box schemes (where subscribers pay for a mixed box of seasonal organic produce), LETS and the increasingly popular farmers' market, the first of which was launched in London in June 1999. While this will attract producers from beyond London, it could also provide a supportive environment for urban producers to develop their enterprises. Government could also implement policies to assist market development; e.g. local authorities could specify local sourcing in their contracts with caterers who service municipal canteens.

The composted value of London's organic waste could reach as much as £6.1 million in sales (London Pride Waste Action Programme 1997) and generate 350 full-time-equivalent jobs. Composting would save London £55 million annually on collection and disposal costs and would cost an estimated £40 million a year, meaning a net benefit of £15 million. Added to these are the environmental savings (Murray 1998). There could be additional jobs in equipment manufacturing, promotion, education and training.

### **3.4 Urban agriculture and education and training**

#### ***3.4.i Current contribution***

Although food-growing activities in schools are uncommon, those who do have such schemes have noted significant benefits. Gardens have improved the school morale, raised health and environmental awareness, catalysed more parental involvement in school life and contributed to curriculum education. Most gardening activities are at the primary level, although there are some initiatives which involve university students.

One development education centre in East London runs a Global Footprints project. This invites children to examine the impact of everyday actions - including food and food growing - on the wider environment. As many pupils are of Bangladeshi origin, the project has established links with schools in Bangladesh. In time, the project will be extended to high schools and to other areas in the UK, Europe and the South. City farms, too, have enormous educational potential. Each year, they are visited by thousands of children - 3,000 to 12,000 per farm, according to one informal London survey (FCF & CG 1999).

For adults, there are several food-related training schemes in London (Capel Manor 1999). The Hoxton Trust in East London provides training for unemployed people, of whom many suffer from mental health problems. Food production is not specifically part of its remit, but many of the project benefits would also apply to food-growing schemes. The training has improved participants' behaviour, literacy, morale and punctuality. All these contribute to their prospects of securing jobs, in either related or unrelated fields. There are also several horticultural schemes for people with learning difficulties. These enable trainees to learn new skills and can lead to future work.

#### ***3.4.ii The potential***

Urban food production has potential to promote learning for people at all ages and at all levels. One survey shows that 70% of teachers believe that environmental education should be mandatory (MORI 1998). The school curriculum is highly prescriptive. There is provision for food growing and only a limited requirement (for younger children) for food and nutritional education. However, the national curriculum is being revised and is likely in the future to make stronger provision for citizenship, health and sustainable development education - all of which could benefit from links with food growing. The Education Action Zone, a new government scheme (DfEE 1998), brings schools, business and community organisations together to develop innovative ways of learning. Again, food growing could play a part here.

Indeed food growing could facilitate learning in a variety of school subjects, from maths (plot measurement, calculating yields) to science (plant biology, soil structure) to history (the role of food in trade and conflict) and to linking with information technology (computers could be used to design sites). Pupils could develop the food-growing activities as a business, marketing foods to parents and the community, in line with the government's aim of promoting business school links.

In addition to school learning, the government is committed to widening adult participation in learning and to skills development. Sustainable food growing can be very challenging whereby the limitations of a city pose extra challenges. What is more, all successful food businesses require the management and often information technology skills, which the government is keen to see developed.

The newly developing intermediate labour market (ILM) model offers scope for food growing. This provides a training and waged-work programme which, although more expensive than many mainstream training programmes, has been significantly more successful in placing people in full-time work. There are also opportunities for developing more horticultural training for people with disabilities, enabling them to develop work-relevant skills and to pursue a rewarding activity. However, any training schemes must go hand-in-hand with job opportunities. There is little point in providing training without start-up support and access to the necessary land. Effective promotion must present urban agriculture as an industry with a future, combining idealism with pioneering innovation and genuine financial opportunities.

### **3.5 Urban agriculture and community development**

#### ***3.5.i Current contribution***

Many of the community food-growing projects in London have undoubtedly helped improve participants' quality of life, such as the Healing Gardens and Natural Growth projects which have enabled marginalised people to come together, develop skills, confidence and friendships.

The Dartford Road allotment site just beyond Greater London in Kent has grown into a hub of community activity. It is now so popular that there is a waiting list. Social events such as barbecues attract many people, and reciprocal arrangements such as bulk-buying and sharing manure are common (Dartford Roads Allotment Association 1999). Many food growers, in turn, contribute directly to others in society and to the environment. Almost all community projects rely heavily on volunteers. Many allotment gardeners help each other with the work, or share produce<sup>16</sup>.

However, it also occurs that others in the neighbourhood might prefer to see the land put to an alternative use. One “community” food-growing project outside London was pressurised by the surrounding community to close.

### **3.5.ii *The potential***

*The* government puts great emphasis on the importance of “the community”. It has launched a number of area-based schemes in deprived areas aiming to tackle specific local problems. These include the Single Regeneration Budget (SRB) and the New Deal for Communities (NDC) schemes, which combine efforts to create employment, to reduce crime and to improve housing with an overall objective to stimulate community life. London is full of regeneration schemes<sup>17</sup>. These may well provide openings for food-growing projects. The SRB scheme has already funded food-growing activities elsewhere in the UK and some NDC plans mention food growing. The government has already recognised the value of allotments to Local Agenda 21 (LA21) (MAFF 1998a) which offers further scope for urban food growing. Most local authority areas in London have a LA21 group, bringing people together to improve their environment.

## **4. Factors affecting urban agriculture**

A sustainable food strategy for London will require a total rethinking of our food economy. At present, national agricultural policies and the European Common Agricultural Policy do little to promote sustainable rural production, let alone urban food growing. Despite the proliferation of forward-thinking schemes, their impact must be measured against the trends towards corporate globalisation which government favours and seeks to promote. Many of these initiatives will have little effect on poverty forecasts compared with the impact of macro-economic policies on peoples’ lives (Kleinman 1998).

Land is scarce in London. It is also expensive and urban agriculture is not the most lucrative way of using it. Many councils are under great pressure to sell sites to developers (on the basis of no demand for plots) to raise funds and meet housing targets. Nevertheless, there are sound arguments for preserving London’s open spaces, as the government acknowledges, advising local authorities that in “meeting London’s housing need, full account must be taken of the value of existing public and private open space” (DETR 1996).

However, much food growing can and does squeeze into land which is too small for other uses. Such activities can, in fact, make better use of land such as parks, land surrounding housing estates and gardens, which have already been designated as green space but which are neglected or underused. Food growing

on interim land is also an option. Government strategic guidance states that green spaces “where public access is restricted or not formally established but which contributes to local amenity or ... recreational needs [are] valuable” (DEDT 1992).

Although scope for developing commercial horticulture is greatest on the urban fringe, much of this land is degraded (DEDT 1992) and alternative uses for it can be more commercially attractive. Land is often owned, managed and used by a range of different bodies. Faced with this patchwork of ownership, the logistics of devising a coherent agricultural policy framework are complex.

Land contamination is another serious potential problem. It is estimated that the total cost of identifying and cleaning up contaminated land in the UK could be as high as £10 billion (FoE 1998). In London, nearly 60% of vacant industrial land (over 500 ha) is contaminated (London Planning Advisory Committee 1995). It may also be that many allotments, gardens and other pockets of land are too polluted for safe food production. The problem is that nobody really knows.

Although Government has allocated £110 million for identifying and cleaning land throughout the UK (DETR 1998), funding for food growing is unlikely to compete favourably with the many other development options which do not require such thorough remediation. If, then, community organisations want to ensure the land is safe enough to eat off of, they will have to test and clean it up themselves. To do so, food growers desperately need adequate information - at present unavailable - in order to carry out the necessary work. However, advocating soil testing too zealously could work against community food growers, who could suddenly face eviction from their gardens by land-hungry property developers on the grounds that the land is “a health hazard”. While it is essential to make sure our land is safe, we should be careful not to throw the baby out with the bath water.

## **5. Perspectives for the development of urban agriculture in London**

There are positive foundations on which to build. An estimated 14% of Londoners already grow some food; 30,000 Londoners are active allotment gardeners; countless more participate in other gardening activities or visit city farms. Many organisations are already growing food or working to promote this. Public awareness of food and environmental issues is growing. These individuals and organisations could be brought together to work towards and argue for more support for urban food growing. Such support would require:



- national policy-makers across all departments to work together to develop a national sustainable food-growing strategy, encompassing financial and other support, promotion and research for, among other things, urban agriculture;
- the Greater London Authority to develop a sustainable food-growing strategy for London, coherent with the national strategy and embracing all the Authority's functions and responsibilities; and
- policy-makers at all levels and across all departments to integrate food growing and its promotion into their aims and activities.

This paper has already highlighted various schemes and policies which could potentially support urban agriculture. In turn, urban agriculture offers the “joined up solutions to joined up problems” (MAFF 1998a), rendering the numerous benefits already mentioned.

The new Greater London Authority (GLA) will have responsibility for co-ordinating action on the environment (DETR 1998). This will include promoting sustainable development in transport, spatial development and economic development; developing an air-quality strategic plan and a municipal waste strategy; and promoting Local Agenda 21 and biodiversity. Food growing could help the GLA achieve many of these objectives.

Local, organic food production of the kind advocated here is a textbook example of holistic thinking, spanning and integrating economic, social, health and environmental issues. The evidence suggests that, as the innermost ring of “food circles”, urban agriculture could make a significant contribution to a more sustainable food system, supplying London with fresh, seasonal, organic produce while creating jobs and promoting health.

However, sustainable food growing is about more than this. It is a metaphor for social change, catalysing new ways of thinking about our society, our economic system and the environment on which we depend. Ultimately, a food-growing strategy for London could span the outer and inner city, the formal, informal and household economies, and encompass primary production as well as processing, marketing and composting. In this way and in time, London could establish itself as a “seed bed” or centre for horticultural and food excellence; a sustainable blueprint for other towns and cities to adopt.

- 1 From £100 million in 1993 to £260 million in 1997.
- 2 Extrapolation from national average productivity levels.
- 3 This figure combines the farming, forestry, hunting and fishing sectors.
- 4 Estimate provided by the National Society of Allotment and Leisure Gardeners/FCF & CG, January 1999. The figures are based on research by the Royal Horticultural Society in 1975. As these yields were an example of “best practice” not achievable by all, the productivity rates are halved here to a level of 10.7 t/ha. The figure includes only occupied allotments and not those which are vacant or derelict, leaving a cultivated area of 697 ha.
- 5 Total greenbelt area of 53,600 ha minus the 13,566 ha of agricultural land already listed.
- 6 The educational role of city farms means that land for classrooms and animals take up much of the farms’ area; as such, fruit and vegetable production is always likely to take a back seat.
- 7 Based on an average area of garden land devoted to food production in 1951 (Wibberley 1959).
- 8 Based on FCF & CG / National Society of Allotment and Leisure Gardeners calculation given above.
- 9 Formerly the SAFE Alliance and the National Food Alliance.
- 10 As illustration: there are gardening programmes on the television at peak viewing hours almost nightly.
- 11 A MAFF study showed that samples of lettuce and spinach contained nitrate levels exceeding allowed limits.
- 12 From 1,354 t of active ingredients in 1992 to 2,285 t.
- 13 Defined here as the area within the perimeters of the M25 motorway.
- 14 A Californian study indicates that 0.42 ha can meet virtually all individual’s food needs, providing space not just for growing but also for composting and other activities. Thus, relatively little land is needed to create an ecologically closed loop.
- 15 Based on an estimated 1,500 hives in London (many beekeepers have more than one) and an average yield of 40 lb of honey.
- 16 An American survey (Anon. 1991) suggests that community gardeners are more likely than non-gardeners to participate in food distribution and environmental schemes, as well as social events.
- 17 Since 1992, £277 million of government funds have been injected into the deprived borough of Tower Hamlets (Wright 1999).

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